FOIR ANNUAL REPORT 2020-21



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Message from Hony. Chairperson, FOIR



Dr. M.S. Sahoo Hony. Chairman, Forum of Indian Regulators & Chairperson, Insolvency & Bankruptcy Board of India

I am extremely delighted to be a part of the Forum of Indian Regulators (FOIR). Despite COVID-19 pandemic, the Forum remained vibrant with several capacity building initiatives. This could be possible entirely due to the enormous support of the FOIR Members and sincere efforts of the IICA to curate and deliver such initiatives.

It has been endeavor of the State to make it easy to do business. Recognizing that it is all about freedom for firms, the business reforms have been removing shackles on freedom. Undoubtedly, business has benefited significantly from the complete suite of freedom. In recent years, however, questions are being raised not about the inadequacy of freedom, but about the design and implementation of the regulations that curtail freedom. In my view, the criticism is valid in some cases and stems mostly from the inadequacy of regulatory capacity.

Reforms entailed a regulatory framework to safeguard freedom, prevent abuse of freedom and protect interests of consumers, so that the markets develop and operate in an efficient and fair manner, with minimum risks. For example, regulations specify the manner of availing freedom in various business activities such as raising resources from market, acquisition of one firm by another, resolution of stress of a firm, and so on. The reforms also created statutory regulators to make regulations to address market failure, a strong possibility in the face of information asymmetry, excess market power and externalities. The regulations, at a minimum, add to costs on availing freedom, which business may not mind, if it is less than the benefits.

Some useful insights have been gained from experience. Some regulators have come to believe that new regulations are required every time market fails or even the State (extant regulations) fails, regardless of whether it resulted from misdemeanor of a firm, or there was inadequate supervision. The typical regulatory response is addition of a set of new regulations. Such regulations may not have been necessary in the first place. Further, if the new regulations are not designed properly, firms may find another way of getting around it, leading to even more regulations. Ill designed and unnecessary regulations have thus tended to proliferate. This has led business to believe that regulations have become excessive and, by imposing undue restrictions on freedom, they have started undoing the reforms. At the same time, several areas remain unregulated or under regulated due, *inter alia*, to inadequate regulatory capacity.

Further, regulations try to address 'polycentric' issues in business. Such issues involve many interested parties interacting with one another in a fluid situation. A small trigger in one variable

creates tensions all around, with an incalculable series of interdependent changes, making the task of regulation difficult. With increasing sophistication and globalization of markets, regulations have become more complex and nuanced. A regulator is expected to design and modify such regulations, preferably proactively, or at least swiftly, in response to market dynamics, without unduly restricting freedom of firms.

Regulation involves the entire chain of activities from the process of making regulations to its content, manner of monitoring and enforcement, and its review. These put an increasing pressure on the regulatory apparatus, way beyond the existing capacity. Regulations are designed and executed by human beings and not by robots; although technology, in some limited cases, can and does reduce the burden. These human beings must be trained professionals. While some increase in the regulatory staff is called for, more important is to improve the quality of the staff available to regulators and firms, through institutional arrangements.

Regulators need human resources of the right quantity and quality who can calibrate freedom, through regulations, on an ongoing basis such that firms find it easy to do business. Similarly, firms need human resources who can translate freedom to business and undertake business in accordance with regulations, without instigating further regulations. With the right human resources, both regulators and firms would appreciate each other's perspective better and be partners in regulations, minimizing cost of regulations.

My experience of working with various regulatory capacities in India in the last several years tells me that a void has emerged in terms of human resources needed to make the market paradigm work. Academia has recast and fine tuned its traditional courses in law, economics, accountancy, and management in sync with the needs of the market economy. It does not yet have a course that helps to comprehensively build regulatory capacity in the ecosystem. Some initiatives [likes NSE's Certification in Financial Markets, SEBI's National Institute of Securities Markets, and IBBI's Graduate Insolvency Programmel have come up to fill the void, but these are too inadequate for the market needs. Consequently, the ecosystem hires graduates of law, economics, accountancy, and management, and attempts to mould them to serve a regulated market economy.

Time has probably come for the FOIR to consider offering or promoting regulations, which intertwines the disciplines of law, economics, management, accountancy, and behavioral sciences, as a field of study. There could perhaps be post-graduates in regulations who are readily employable by firms, who intend to convert freedom to business, as well as by regulators.

> M. S. Sahoo 30th September, 2021

The Forum in Brief

The Forum of Indian Regulators was formally registered as a Society under the Societies Registration Act, with the Registrar of Societies in the National Capital Territory of Delhi on February 4, 2000.

After the formation of State Electricity Regulatory Commissions in few States, a need was felt by the regulators for a common platform to discuss emerging issues in regulatory procedures and practices, to evolve common strategies to meet the challenges before regulators in India and to share information and experiences. The idea quickly found acceptance and as more Regulatory Commissions were constituted, either under State specific Acts, or the Electricity Regulatory Commissions Act,1998, they started participating in the activities of the Forum of Indian Regulators. The constitution of the Forum does not restrict it only to the electricity sector but also includes other sectors such as Ports, Aviation, Petroleum and Natural Gas, Competition, Insolvency.

Finances

The Forum relies majorly on membership fees to finance its expenditure. Annual subscription fee of Rs. 1.00 lakh is being contributed by each regulator while Rs 50,000.00 is being contributed by North Eastern State Electricity Regulatory Commissions.

Administrative Structure

Governing Body

The Forum has a Governing Body. Any Fellow Member of the Forum is eligible for appointment to the Governing Body. All members work in an honorary capacity. During the year it comprised the following nominated members:

Hony. Chairman: Dr. M.S. Sahoo, Chairperson, IBBI

Hony. Vice Chairman:

1. Mr. Ashok Kumar Gupta, Chairperson, CCI

2. Mr. P.K. Pujari, Chairperson, CERC

3. Mr. Balwinder Singh Bhullar, Chairperson, AERA

4. Dr. P.D. Vaghela, Chairperson, TRAI

5. Mr. U.N. Behera, Chairperson, OERC

6. Mr. M.K. Goel, Chairperson, JERC for State of Goa & UTs

7. Chairperson, PNGRB

8. Chairperson, TAMP

9. Chairperson, WDRA

Secretariat

The Secretariat for the Forum of Indian Regulators is provided by the Central Electricity Regulatory Commission. The Secretary, CERC functions as the Executive Secretary of the Forum, while the Assistant Secretary, Forum of Regulators (FOR), CERC functions as Executive Treasurer of the Forum. The secretariat works in an honorary capacity. During the year, the secretariat comprised of:

Hony. Secretary: Mr. Indu Shekhar Jha, Member, CERC

Hony. Treasurer: Mr. Arun Goyal, Member, CERC

Mission Statement

- **Promote transparency** in the working of the regulatory bodies
- ➤ **Protect consumer interest** and develop consumer advocacy organisations
- **Develop human** and **institutional capacities** in regulatory bodies, utilities and other stake holders
- **Research** the **efficiency** and **effectiveness** of independent regulation and matters incidental thereto.
- **Provide an information** base on regulatory law and practice and regulatory economics
- > Collaborate with academic and research institutions, professional bodies and **NGO's** in India and internationally in areas of Interest to the Society
- **Do** all such other **lawful things as are conducive or incidental** to the attainment of the above aims and objectives

Aims and Objectives

The aims and objects for which the Society is established are as under:

- To promote the growth of independent regulatory mechanisms. i)
- To promote transparency in the working of the Regulatory Bodies. ii)
- iii) To protect consumer interest and develop consumer advocacy organizations.
- iv) To develop human and institutional capacities in regulatory bodies, utilities and other stakeholders.
- To research the efficiency and effectiveness of independent regulation and ٧) matters incidental thereto.
- To provide for an information base on regulatory law and practice and vi) regulatory economics.
- vii) To collaborate with academic and research institutions, professional bodies and NGOs in India and internationally in areas of interest to the Society.
- viii) To do all such other lawful things as conducive or incidental to the attainment of the above aims and objects.

List of FOIR Member Organizations

S. No.	Details of Regulatory Authorities / Bodies / Commissions	Website
1	CENTRAL ELECTRICITY REGULATORY COMMISSION (CERC)	cercind.gov.in
2	ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION (APERC)	aperc.gov.in
3	ARUNACHAL PRADESH STATE ELECTRICITY REGULATORYCOMMISSION (APSERC)	apserc.nic.in
4	ASSAM ELECTRICITY REGULATORY COMMISSION (AERC)	aerc.nic.in
5	BIHAR STATE ELECTRICITY REGULATORY COMMISSION (BERC)	berc.co.in
6	CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION (CSERC)	cserc.gov.in
7	DELHI ELECTRICITY REGULATORY COMMISSION (DERC)	derc.gov.in
8	GUJARAT ELECTRICITY REGULATORY COMMISSION (GERC)	gercin.org
9	HARYANA ELECTRICITY REGULATORY COMMISSION (HERC)	herc.gov.in
10	HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION (HPERC)	hperc.org
11	JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION (JSERC)	jserc.org
12	JOINT ELECTRICITY REGULATORY COMMISSION [JERC] FOR STATE OF GOA & UTS (JERC FOR Uts)	jercuts.gov.in
13	JOINT ELECTRICITY REGULATORY COMMISSION FOR MANIPUR & MIZORAM (JERC FOR M&M)	jerc.mizoram.gov.in
14	KARNATAKA ELECTRICITY REGULATORY COMMISSION (KERC)	karnataka.gov.in
15	KERALA STATE ELECTRICITY REGULATORY COMMISSION (KSERC)	erckerala.org
16	MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION (MPERC)	mperc.in
17	MAHARASHTRA ELECTRICITY REGULATORY COMMISSION (MERC)	merc.gov.in
18	MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION (MSERC)	mserc.gov.in
19	NAGALAND ELECTRICITY REGULATORY COMMISSION (NERC)	nerc.org.in
20	ODISHA ELECTRICITY REGULATORY COMMISSION (OERC)	orierc.org

21	PUNJAB STATE ELECTRICITY REGULATORY COMMISSION (PSERC)	pserc.gov.in
22	RAJASTHAN ELECTRICITY REGULATORY COMMISSION (RERC)	rerc.rajasthan.gov.in
23	SIKKIM STATE ELECTRICITY REGULATORY COMMISSION (SSERC)	sserc.in
24	TAMIL NADU ELECTRICITY REGULATORY COMMISSION (TNERC)	tnerc.gov.in
25	TELANGANA STATE ELECTRICITY REGULATORY COMMISSION (TSERC)	tserc.gov.in
26	TRIPURA ELECTRICITY REGULATORY COMMISSION (TERC)	terc.nic.in
27	UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION (UPERC)	uperc.org
28	UTTARAKHAND ELECTRICITY REGULATORY COMMISSION (UERC)	uerc.gov.in
29	WEST BENGAL ELECTRICITY REGULATORY COMMISSION (WBERC)	wberc.gov.in
30	AIRPORTS ECONOMIC REGULATORY AUTHORITY OF INDIA (AERA)	aera.gov.in
31	COMPETITION COMMISSION OF INDIA (CCI)	cci.gov.in
32	INSOLVENCY & BANKRUPTCY BOARD OF INDIA (IBBI)	ibbi.gov.in
33	PETROLEUM & NATURAL GAS REGULATORY BOARD (PNGRB)	pngrb.gov.in
34	TARIFF AUTHORITY FOR MAJOR PORTS (TAMP)	tariffauthority.gov.in
35	TELECOM REGULATORY AUTHORITY OF INDIA (TRAI)	main.trai.gov.in
36	WAREHOUSING DEVELOPMENT REGULATORY AUTHORITY	wdra.gov.in

Governing Body of FOIR for the year 2020-21

Name & Designation	Date of Appointment in Regulatory Commission /Authority	Date of Retirement in Regulatory Commission /Authority
Hony. Chairman		
Dr. M. S. Sahoo, Chairperson, IBBI	01.10.2016	30.09.2021
Hony. Vice- Chairman		
Mr. P.K. Pujari, Chairperson, CERC	01.02.2018	11.06.2022
Mr. Ashok Kumar Gupta, Chairperson, CCI	12.11.2018	25.10.2022
Mr. Balwinder Singh Bhullar, Chairperson, AERA	08.07.2019	07.07.2022
Dr. P.D. Vaghela, Chairperson, TRAI	01.10.2020	30.09.2023
Mr. U.N. Behera, Chairperson, OERC	16.01.2017	15.01.2022
Mr. M.K. Goel, Chairperson, JERC for State of Goa & UTs	17.02.2017	16.09.2021
Chairperson, PNGRB	-	-
Chairperson, TAMP	-	-
Chairperson, WDRA	-	-
Hony. Members		
Mr. Ramesh Kumar Choudhary Member, BERC	08.08.2016	07.08.2021
Mr. Sauri Kant Parhi Member, OERC	04.11.2016	03.11.2021
Mr. Arun Kumar Sharma Member, CSERC	29.11.2016	22.06.2021
Mr. Suresh Chandra Dinkar	17.07.2017	16.07.2022

Member, RERC		
Vacant, Central Infrastructure		
Sector		
Vacant, Financial Sector		
Hony. Secretary		
Mr. Indu Shekhar Jha, Member,	21.01.2019	20.01.2024
CERC	21.01.2017	20.01.2021
Hony. Treasurer		
Mr. Arun Goyal, Member, CERC	07.04.2020	02.08.2024

The Year in Retrospect

Sector Analysis

> A. Electricity

India ranked sixth in the list of countries to make significant investments in clean energy at US\$ 90 billion. India is the only country among the G20 nations that is on track to achieve the targets under the Paris Agreement (*Source:* India Brand Equity Foundation www. Ibef.org).



The Electricity Act, 2003 that came into force on 15.06.2003 was enacted with an objective to introduce competition, protect consumer's interests and provide power for all.

Achievements of CERC during the FY 2020-2021:

During 2020-21, despite various constraints faced due to COVID-19 pandemic, the Central Electricity Regulatory Commission (CERC) took several important decisions & initiatives to further facilitate power sector reforms in India.

- 1. The Commission formulated a framework for Real-Time Market for electricity in India (RTM) in June, 2020, which aimed at providing an organised platform for energy trade closer to real time. RTM is a half hourly market that runs 48 times during the day. This is expected to help manage variation in load and renewable energy integration through organised market platform without leaning on the grid.
- 2. A pilot on Security-constrained Economic Dispatch of Electricity (SCED) had been

implemented with the help of POSOCO (System Operator) from 1st April, 2019. This pilot helped explore the scope of optimization and hence the possibility of minimizing the system cost without major structural changes in the existing system. Accordingly, the pilot was granted an extension upto March, 2021. As per the report of POSOCO, implementation of the pilot has entailed a monthly saving of approximately Rs.63.7 crores between the period from April, 2019 to August, 2021.

- 3. CERC issued discussion papers on "Mechanism for compensation on account of change in law for compliance with Revised Emission Standards notified by MoEF & CC in respect of Competitively Bid Thermal generating plants" and "Methodology for computing the escalation factors and other parameters for the purpose of Bid Evaluation and Payment for Procurement of Power from Renewable Energy Projects Complemented with Firm Power from any other source through Competitive Bidding".
- 4. CERC devised a methodology for computing the escalation factors and other parameters for the purpose of Bid Evaluation and Payment for Procurement of Power from Renewable Energy Projects complemented with firm power from any other source through Competitive Bidding.
- 5. On 15th February 2021, the Central Electricity Regulatory Commission (Power Market) Regulations, 2021 was notified to develop and regulate the power market, keeping pace with the developments in the power sector. The objective of the Regulations is to help in the creation of a comprehensive market structure and enable transaction, execution and contracting all types of products in the power markets.
- 6. The Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 was notified which detailed the components of

Transmission Charges and defined the methodology for the calculation of transmission losses for ISTS on all India average basis by the Implementing Agency (NLDC) for each week.

- 7. The Central Electricity Regulatory Commission (Sharing of Revenue Derived from Utilization of Transmission Assets for Other Businesses) Regulations, 2020 was notified. The main objective of this regulation is to specify the mechanism for sharing revenue derived from utilization of transmission assets for other businesses.
- 8. The Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020 was notified on 23.6.2020. The main objective of the Regulation was to specify terms and conditions for determining the tariff of the grid interactive power projects based on Renewable Energy sources through transparent and participative process.
- 9. The principal Regulations namely Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 on 7th March, 2020. Subsequently, the Commission approved amendment in the principal Regulations Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2020 on 25th August, 2020.
- 10. The Commission, vide its Orders dated 17th August 2020 and 19th March 2021, accorded approval for introduction of Green Term Ahead Market (GTAM) contracts on Indian Energy Exchange (IEX) and Power Exchange India Ltd (PXIL) respectively, which would provide an additional avenue for short term trading of Renewable Energy.
- 11. The Commission also carried out various legal proceedings during the year 2020-2021. A total of 542 petitions were registered during the year 2020-21. In addition, 783 petitions were carried forward from the previous year 2019-20, taking

the total number of petitions to 1325. Out of these, 277 petitions were disposed of during 2020-21.

Developments/investments:

- In March 2021, Act is LLP, a private equity firm, planned to invest US\$ 850 million to build two green energy platforms in India.
- According to the firm, the first platform will focus on setting up grid-connected solar and wind power parks, while the second platform will tailor to the commercial and industrial segment.
- In January 2021, TOTAL acquired a 20% stake in Adani Green Energy. In addition, as a part of this deal, TOTAL undertook 50% in 2.35 GW portfolio of operating solar assets in Adani Energy Limited. The combined deal amount was worth US\$ 2.5 billion.
- In December 2020, the Asian Development Bank (ADB) and the Government of India signed a US\$ 100 million loan to modernise and upgrade the power distribution system for enhancing the quality and reliability of electricity supply in Bengaluru, Karnataka.
- In January 2021, Tata Power received a letter of award (LOA) from Kerala State Electricity Board Limited (KSEBL) to develop a 110 MW solar project. With this, Tata Power's renewable capacity will increase to 4,032 MW, out of which 2,667 MW is operational and 1365 MW is under implementation, including 110 MW won under this LOA. (Source: India Brand Equity Foundation www. Ibef.org)

Future Road Map:

The Government of India has released its roadmap to achieve 227 GW capacity in renewable energy (including 114 GW of solar power and 67 GW of wind power) by 2022. The Union Government of India is preparing a 'rent a roof' policy for

supporting its target of generating 40 Gigawatts (GW) of power through solar rooftop projects by 2022.

Coal-based power-generation capacity in India, which currently stands at 199.5 GW, is expected to witness total installed capacity addition of 47.86 GW by 2022.

. (Source: India Brand Equity Foundation www. Ibef.org)

> B. Insolvency and Bankruptcy

The Insolvency and Bankruptcy Code (Code/IBC) was enacted on May 28, 2016 which reformed the existing institutional structure for insolvency and bankruptcy resolution and replaced the erstwhile regime with a modern and well-structured law. The



objective of the Code is to consolidate and amend the laws relating to reorganisation and insolvency resolution of corporate persons, partnership firms and individuals in a time-bound manner for maximisation of value of assets of such persons, to promote entrepreneurship, availability of credit and balance the interests of all the stakeholders.

A key pillar of the ecosystem responsible for implementation of the Code is the Insolvency and Bankruptcy Board of India (IBBI), which was established on October 01, 2016. It is a unique regulator: regulates a profession as well as processes. It has regulatory oversight over the elements of the insolvency regime, namely, Insolvency Professionals (IPs), Insolvency Professional Agencies (IPAs) and Information Utilities (IUs). It writes and enforces rules for transactions, namely, corporate insolvency resolution, corporate liquidation, individual insolvency resolution and

individual bankruptcy under the Code. It has also been assigned the task of developing and regulating the profession of valuers under the Companies Act, 2013.

Major Developments

- The Committee of Experts (COE), which was constituted by Government to examine the need for an institutional framework for regulation and development of valuation professionals, submitted its report to the Government along with a draft of 'Valuers Bill, 2020' on April 02, 2020. The CoE has, inter-alia, recommended enactment of an exclusive statute to provide for the establishment of the National Institute of Valuers (Institute / NIV) to promote the development of, and to regulate the profession of Valuers and market for valuation services, and also to protect the interests of users of valuation services in India.
- The Cross-Border Insolvency Rules/Regulations Committee, constituted by Government under the chairmanship of Dr. K. P. Krishnan, submitted its report to the Government on June 15, 2020 pertaining to its initial mandate, namely draft the rules and regulations for implementation of cross border insolvency under the Code. The Committee was thereafter working on the additional terms of reference, namely, Enterprise Group Insolvency.
- The Government constituted a **sub-committee of the Insolvency Law Committee (ILC)** vide order dated June 24, 2020, under the Chairmanship of Dr.

 M. S. Sahoo, Chairperson, IBBI to propose a detailed scheme and regulatory framework for implementing **pre-packaged insolvency resolution process**(PPIRP) in India. The sub-committee submitted its report to the MCA on October 31, 2020. Taking note of the progress in insolvency reforms, maturity of the systems and practices relating to insolvency in the country and learning from the experience of pre-packs in other jurisdictions, the sub-committee designed a pre-pack framework within the basic structure of the Code for the Indian market.

Government Initiatives / Legislative Developments

- The President of India promulgated the **Insolvency and Bankruptcy Code** (Amendment) Ordinance, 2020 on June 05, 2020 to amend the Code to suspend filing of applications for initiation of corporate insolvency resolution process (CIRP) under section 7, 9 and 10 of the Code for any default arising on or after March 25, 2020 for a period of six months, extendable by another 6 months. This was done to prevent companies, which are experiencing distress on account of unprecedented situation caused by the COVID-19 pandemic, from being pushed into insolvency proceedings, when it is difficult to find adequate number of resolution applicant to rescue them. This amendment was subsequently passed by the Parliament and notified on September 23, 2020 as the **Insolvency and Bankruptcy Code (Second Amendment) Act, 2020**.
- In exercise of the powers conferred by section 10A of the Insolvency and Bankruptcy Code, 2016, the Central Government vide notifications dated September 24, 2020 and December 22, 2020, **extended suspension of filing of applications for CIRP** for a further period of three months each, starting from September 25, 2020 and December 25, 2020 respectively.
- The Central Government notified the **Insolvency and Bankruptcy** (Application to Adjudicating Authority) (Amendment) Rules, 2020 on September 24, 2020 to provide that a financial creditor when initiating CIRP against a corporate debtor (CD) under section 7 of the Code, shall serve a copy of the application to the registered office of the CD and to the Board before filing with the Adjudicating Authority. The same was also provided for in the case of an operational creditor filing an application under section 9 and a corporate applicant under section 10 of the Code.

Future Roadmap

The insolvency and bankruptcy regime is still evolving under the Code with emerging challenges being addressed swiftly and efficiently. The future roadmap of the Code is being charted. Putting in place remaining elements of the corporate insolvency framework, viz. cross-border insolvency and group insolvency are under consideration.

> C. Telecommunication

India is currently the world's second-largest telecommunications market with a subscriber base of 1.20 billion and has registered strong growth in the last decade and half. The Telecommunications industry is divided into subsectors, namely, Infrastructure, Equipment, Mobile Virtual Network



Operators (MNVO), White Space Spectrum, 5G, Telephone service providers and Broadband. The Indian mobile economy is growing rapidly and will contribute substantially to India's Gross Domestic Product (GDP), according to a report prepared by GSM Association (GSMA) in collaboration with Boston Consulting Group (BCG).

The liberal and reformist policies of the Government of India have been instrumental along with strong consumer demand in the rapid growth in the Indian telecom sector. The Government has enabled easy market access to telecom equipment and a fair and proactive regulatory framework that has ensured availability of telecom services to consumer at affordable prices. The deregulation of Foreign Direct Investment (FDI) norms have made the sector one of the fastest

growing and the top five employment opportunity generator in the country (*Source:* CCI India, https://www.cciindia.org/telecom.html)

Market size:

The telecommunications market in India has witnessed vast growth over past few decades. Gross revenue of the telecom sector stood at Rs. 68,228 crore (US\$ 9.35 billion) in the third quarter of FY21.

Over the next five years, rise in mobile-phone penetration and decline in data costs will add 500 million new internet users in India, creating opportunities for new businesses. (*Source:* India Brand Equity Foundation, www.ibef.org)

Developments/Investments:

With daily increasing subscriber base, there have been a lot of investment and development in the sector. FDI inflow into the telecom sector during April 2000 – March 2021 totalled US\$ 37.66 billion according to the data released by Department for Promotion of Industry and Internal Trade (DPIIT).

Some of the developments in the recent past are:

- In March 2021, Vodafone Idea Ltd. (VIL) announced that the acquired spectrum in five circles would help improve 4G coverage and bandwidth, allowing it to offer 'superior digital experience' to customers.
- In March 2021, Advanced Television Systems Committee (ATSC) and Telecommunications Standards Development Society, India (TSDSI) signed a deal to boost adoption of ATSC standards in India in order to make broadcast services available on mobile devices. This allows the TSDSI to follow ATSC standards, fostering global digital broadcasting standard harmonisation.
- In December 2020, BSNL, in partnership with Skylotech India, announced a breakthrough in satellite-based NB-IoT (Narrowband-Internet of Things) for fishermen, farmers, construction, mining and logistics enterprises.

- In the first quarter of FY21, customer spending on telecom services increased 16.6% y-o-y, with over three-fourths spent on data services. This spike in consumer spending came despite of the COVID-19 disruption and lack of access of offline recharges for a few weeks
- India had over 500 million active internet users (accessed Internet in the last one month) as of May 2020.
- In June 2020, Jio Platforms Ltd. sold 22.38% stake worth Rs 1.04 trillion (US\$ 14.75 billion) to ten global investors in a span of eight weeks under separate deals, involving Facebook, Silver Lake, Vista, General Atlantic, Mubadala, Abu Dhabi Investment Authority (ADIA), TPG Capital and L. Catterton. This is the largest continuous fundraise by any company in the world. (Source: India Brand Equity Foundation, www.ibef.org)

Government Initiatives:

The Government has fast-tracked reforms in the telecom sector and continues to be proactive in providing room for growth for telecom companies. Some of the key initiatives taken by the Government are as follows:

- In March 2021, TEPC (Telecom Equipment Export Promotion Council) organised India Telecom 2021—a platform for convergence of technologies and business exchange.
- The Union Cabinet approved Rs. 12,195 crore (US\$ 1.65 billion) productionlinked incentive (PLI) scheme for telecom & networking products under the Department of Telecom.
- In 2021-22, the Department of Telecommunications has been allocated Rs. 58,737.00 crore (US\$ 8 billion). 56% allocation is towards revenue expenditure and the remaining 44% is towards capital expenditure.

- Under Union Budget 2021-22, the government allocated Rs. 14,200 crore (US\$ 1.9 billion) for telecom infrastructure that entails completion of optical fibre cable-based network for Defence services, rolling out broadband in 2.2 lakh panchayats and improving mobile services in the North East.
- On January 15, 2021, India and Japan signed an MoU to enhance cooperation in the field of Information and Communications Technologies. The MoU was signed between the Union Minister for Communications, Electronics and IT, Ravi Shankar Prasad, and the Japanese Minister for Internal Affairs and Communications, Takeda Ryota.
- On January 6, 2021, the Department of Telecommunications (DoT) issued Notice Inviting Applications (NIA) for auction of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1,800 MHz, 2,100 MHz, 2,300 MHz and 2,500 MHz bands. Last date for submission of applications for participation in the auction is February 5, 2021, and auction to commence online from March 1, 2021.
- In December 2020, the Union Cabinet, chaired by the Prime Minister, Mr. Narendra Modi, approved a proposal by Department of Telecommunications for setting up of Public Wi-Fi Networks by Public Data Office Aggregators (PDOAs) to provide public Wi-Fi services through Public Data Offices (PDOs).
- In December 2020, the Union Cabinet, chaired by the Prime Minister, Mr. Narendra Modi, approved the provision of submarine optical fibre cable connectivity between Mainland (Kochi) and Lakshadweep Islands (KLI Project).
- On November 4, 2020, The Union Cabinet, chaired by the Prime Minister, Mr.
 Narendra Modi, approved to sign a Memorandum of Understanding (MoU)
 between the Ministry of Communication and Information Technology and the
 Department of Digital, Culture, Media and Sports (DCMS) of United Kingdom
 Government on cooperation in the field of telecommunications/information and
 communication technologies (ICTs).

• On September 21, 2020, Prime Minister, Mr. Narendra Modi launched a project to connect all 45,945 villages in Bihar with optical fibre internet service. This project will be completed by March 31, 2021 at a cost of Rs. ~1,000 crore (US\$ 135.97 million); Rs. 640 crore (US\$ 87.01 million) of capital expenditure will be funded by Department of Telecommunications.

(Source: India Brand Equity Foundation, www.ibef.org)

Legislative Developments:

With increased number of Telecom subscribers in India, the sector requires vigilance from both the government and regulators in the country. The Telecom Regulatory Authority of India (TRAI), the regulator for telecom sector in India has taken continuous initiatives to maintain fair play and to protect interests of its stakeholders. During the year 2019-20, TRAI issued a Recommendation on the Entry Level Net worth requirement of Multi-system Operators in Cable TV services in July 2019. The recommendations removed the necessity for fixation of a minimum entry level net worth and prescribed a standard preform for self-declaration of net worth. TRAI also released its recommendations on reforming the guidelines for transfer and merger of telecom licences, after the telecom department sought its views on enabling simplification and fast-tracking of approvals in May 2019.

Several other rules & regulations issued during the year 2019-20 include Telecommunication (Broadcasting and Cable) Services Register of Interconnection Agreements Regulations, 2019, Implementation of Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018, Telecommunication (Broadcasting and Cable) Services Register of Interconnection Regulations, 2019 & Telecommunication Consumers Education and Protection Fund (Fifth Amendment) Regulations, 2020 etc.

(Source: India Brand Equity Foundation, www.ibef.org)

Future Road Map:

Revenue from the telecom equipment sector is expected to grow to US\$ 26.38 billion by 2020. The number of internet subscribers in the country is expected to double by 2021 to 829 million and overall IP traffic is expected to grow four-fold at a CAGR of 30% by 2021.

According to a Zenith Media survey, India is expected to become the fastest-growing telecom advertisement market, with an annual growth rate of 11% between 2020 and 2023.

The Indian Government is planning to develop 100 smart city projects, and IoT will play a vital role in developing these cities.

(Source: India Brand Equity Foundation, www.ibef.org)

> D. Aviation

The civil aviation sector in India has emerged as one of the fastest growing industries in the country during the last three years. India has become the third largest domestic aviation market in the world. The Airport industry in India is regulated by the Airport Authority for



India (AAI) and the Airport Economic Regulatory Authority (AERA). While the AAI is responsible for the creation, upgradation, maintenance and management of the civil aviation infrastructure, AERA has been entrusted with the responsibility of determination of tariff related to aeronautical industry in the country.

Market size:

India's passenger* traffic stood at 115.37 million in FY21. Domestic passenger and international passenger traffic declined at a CAGR of -9.02% and -28.64%, respectively, from FY16 to FY21, owing to COVID-19-related restrictions on flights

in FY21. In FY21, airports in India pegged the domestic passenger traffic to be \sim 105.2 million, a 61.7% YoY decline, and international passenger traffic to be \sim 10.1 million, an 84.8% YoY decline, over the fiscal year ended March 31, 2020. In March 2021, the average daily passenger traffic stood at 546,702.90.

Between FY16 and FY21, freight traffic declined at a CAGR of -1.77% from 2.70 million tonnes (MT) to 2.47 MT. Freight traffic on airports in India has the potential to reach 17 MT by FY40.

Aircraft movement declined at a CAGR of -7.79% from 1.60 million in FY16 to 1.20 million in FY21. From FY16 to FY21, domestic aircraft movement decreased at a CAGR of -6.44% and international aircraft movement declined at a CAGR of -18.52%. India's domestic and international aircraft movements reached 1,062 thousand and 135 thousand, respectively, in FY21. The expenditure of Indian travellers is expected to grow to Rs. 9.5 lakh crore (US\$ 136 billion) by 2021.

To cater to the rising air traffic, the Government of India has been working towards increasing the number of airports. As of 2020, India had 153 operational airports. India has envisaged increasing the number of operational airports to 190-200 by FY40. (Source: India Brand Equity Foundation, www.ibef.org)

Developments/investments:

India's aviation industry is expected to witness Rs. 35,000 crore (US\$ 4.99 billion) investment in the next four years. The Indian Government is planning to invest US\$ 1.83 billion for development of airport infrastructure along with aviation navigation services by 2026.

Key investments and developments in India's aviation industry include:

In March 2021, the Indira Gandhi International (IGI) Airport in Delhi announced a key expansion project to increase its passenger handling capacity. The expansion

- project includes a new terminal, advanced facilities, an additional runway and improved capacity to handle more passengers.
- In March 2021, the government announced plan to set up two water aerodroames in Assam and four water aerodromes in Andaman & Nicobar Islands this year to boost tourism and connectivity.
- In March 2021, the government submitted a proposal to develop a water aerodrome project at the Ujjani Dam, under the Ministry of Civil Aviation's UDAN-RCS (regional connectivity scheme).
- On March 25, 2021, Union Minister of Civil Aviation Hardeep Singh Puri inaugurated the Kurnool Airport, Orvakal, Andhra Pradesh, in a virtual ceremony. The flight operations at Kurnool airport will commence on March 28, 2021 under the Regional Connectivity Scheme – Ude Desh Ka Aam Nagrik (RCS-UDAN).
- On February 25, 2021, the Airports Authority of India (AAI) issued tenders for construction of the first phase of an international airport at Dholera in Gujarat, entailing an investment of Rs. 987 crore (US\$ 135.07 million). The new facility is being set up in greenfield city under the Delhi-Mumbai Industrial Corridor (DMIC) project at Dholera.
- On January 19, 2021, the Airport Authority of India (AAI) signed a concession agreement with Adani Group for three airports—Jaipur, Guwahati and Thiruvananthapuram. The concession period is 50 years from the date of commercial operations.
- AAI plans to invest Rs. 25,000 crore (US\$ 3.58 billion) in next the five years to augment facilities and infrastructure at airports.
- UK group to invest Rs. 950 crore (US\$ 135.9 million) in Turbo Aviation's new airline TruStar. (Source: India Brand Equity Foundation, www.ibef.org)

Future road map:

India's aviation industry is largely untapped with huge growth opportunities, considering that air transport is still expensive for majority of the country's population, of which nearly 40% is the upwardly mobile middle class.

The industry stakeholders should engage and collaborate with policy makers to implement efficient and rational decisions that would boost India's civil aviation industry. With the right policies and relentless focus on quality, cost and passenger interest, India would be well placed to achieve its vision of becoming the third-largest aviation market by 2020. The expenditure of Indian travellers is expected to grow up to Rs. 9.5 lakh crore (US\$ 136 billion) by 2021. Due to rise in demand in air travel, India will need 2,380 new commercial airplanes by 2038.

(Source: India Brand Equity Foundation, www.ibef.org)

E. Oil & Natural Gas

Oil and gas sector is among the eight core industries in India and plays a major role in influencing decision making for all the other important sections of the economy. India's economic growth is closely related to its energy demand; therefore, the need for



oil and gas is projected to grow more, thereby making the sector quite conducive for investment.

The Government has adopted several policies to fulfil the increasing demand. It has allowed 100% Foreign Direct Investment (FDI) in many segments of the sector, including natural gas, petroleum products and refineries among others. Today, it

attracts both domestic and foreign investment as attested by the presence of Reliance Industries Ltd (RIL) and Cairn India.

According to IEA (India Energy Outlook 2021), primary energy demand is expected to nearly double to 1,123 million tonnes of oil equivalent, as the country's gross domestic product (GDP) is expected to increase to USD 8.6 trillion by 2040.

India's GDP. (Source: India Brand Equity Foundation, www.ibef.org)

Market size:

India is expected to be one of the largest contributors to non-OECD petroleum consumption growth globally. Crude Oil import rose sharply to US\$ 101.4 billion in 2019-20 from US\$ 70.72 billion in 2016-17.

As of September 01, 2021, the sector's total installed provisional refinery capacity stood at 246.90 MMT and IOC emerged as the largest domestic refiner, with a capacity of 69.7 MMT.

In FY20, crude oil production in India stood at 32.2 MMT. Crude oil production stood at 4.9 MMT in FY22 (April-May 2021) and was 30.5 MMT for FY21. In FY20, crude oil import increased to 4.54 mbpd from 4.53 mbpd in FY19. Natural Gas consumption is forecast to reach 143.08 million tonnes (MT) by 2040. India's LNG import stood at 33.68 bcm during FY20.

According to the International Energy Agency (IEA), consumption of natural gas in India is expected to grow by 25 billion cubic metres (bcm), registering an average annual growth of 9% until 2024.

According to the International Energy Agency (IEA), India's medium-term outlook for natural gas consumption remains solid due to rising infrastructure and supportive environment policies. Industrial consumers are expected to account for \sim 40% of India's net demand growth. The demand is also expected to be driven by sectors such as residential, transport and energy.

India's consumption of petroleum products grew 4.5% to 213.69 MMT during FY20 from 213.22 MMT in FY19. The total value of petroleum products exported from the

country increased to US\$ 35.8 billion in FY20 from US\$ 34.9 billion in FY19. Export of petroleum products from India increased from 60.54 MMT in FY16 to 65.7 MMT in FY20. Exports of petroleum products from India reached 56.8 MMT in FY21 from 60.5 MMT in FY16.

As of December 31, 2020, Gas Authority of India Ltd. (GAIL) had the largest share (69.39% or 11,884 kms) of the country's natural gas pipeline network (17,126 kms). (Source: India Brand Equity Foundation, www.ibef.org)

Investments:

Following are some of the major investments and developments in the oil and gas sector:

- In February 2021, Petronet LNG announced its plans to increase in its Dahej terminal's capacity by 29% to 22.5 million tonnes per annum (mtpa) to meet the rising demand.
- Key Indian oil retailers such as Bharat Petroleum and Hindustan Petroleum have announced plans to increase the capacity of their outlets in rural areas in 2021.
- In February 2021, ONGC announced that by May 2021, it would increase natural gas output from a KG basin block to 2.5-3 million standard cubic meters per day.
- In February 2021, the government launched key oil & gas projects in Assam, such as INDMAX Unit at Indian Oil's Bongaigaon Refinery, Oil India Limited's secondary tank farm at Madhuban, Dibrugarh and a 'Gas Compressor Station' at Hebeda Village, Makum and Tinsukia remotely from Dhemaji in Assam.
- In February 2021, the government launched key oil and gas projects such as the Ramanathapuram - Thoothukudi natural gas pipeline and Gasoline Desulphurisation Unit at Chennai Petroleum Corporation Limited, Manali.
- In February 2021, Indian Oil Corp. Ltd. signed a 'statement of intent' with Greenstat Hydrogen India Pvt. Ltd. to establish a centre of excellence for

- Hydrogen value chain and other related technologies such as hydrogen storage, fuel cells, etc.
- Foreign investors will have opportunities to invest in projects worth US\$ 300 billion in India as the country looks to cut reliance on oil import by 10% by 2022 according to Mr. Dharmendra Pradhan, Minister of Petroleum and Natural Gas, Government of India.

Government Initiatives:

Some of the major initiatives taken by the Government of India to promote oil and gas sector are:

- In February 2021, Prime Minister Mr. Narendra Modi announced that the Government of India plans to invest ~Rs. 7.5 trillion (US\$ 102.49 billion) on oil and gas infrastructure in the next five years.
- In Union Budget 2021, the government allocated funds worth Rs. 12,480 crore (US\$ 1.71 billion) for direct benefit transfer of LPG (liquefied petroleum gas) and Rs. 1,078 crore (US\$ 147.31 million) to feedstock subsidy to BCPL/Assam Gas Cracker Complex.
- In Union Budget 2021, the Finance Minister announced to provide 1 crore more LPG connections under Pradhan Mantri Ujjwala Yojana (PMUY) scheme.
- The Ministry of Petroleum and Natural Gas released a draft LNG policy that aims to increase the country's LNG re-gasification capacity from 42.5 million tonnes per annum (mtpa) to 70 mtpa by 2030 and 100 mtpa by 2040.
- The Ministry of Petroleum and Natural Gas released an 'Ethanol Procurement Policy' on a long-term basis under the 'Ethanol Blended Petrol (EBP) Programme' (October 11, 2019), which covers modalities for long-term ethanol procurement, proposed mechanisms for long-term procurement contracts, pricing methodology and other topics.

- As per Union Budget 2019-20, Indian Scheme 'Kayakave Kailasa', the Ministry of Petroleum & Natural Gas has enabled SC/ST entrepreneurs in providing bulk LPG transportation. State run energy firms, Bharat Petroleum, Hindustan Petroleum and Indian Oil Corporation, plan to spend US\$ 20 billion on refinery expansions to add units by 2022.
- The Government is planning to set up around 5,000 compressed biogas (CBG) plants by 2023.
- The Government is planning to invest US\$ 2.86 billion in the upstream oil and gas production to double natural gas production to 60 bcm and drill more than 120 exploration wells by 2022. (*Source:* India Brand Equity Foundation, www.ibef.org)

Future Road map:

As per preliminary data of gasoline sales, fuel consumption in India registered growth in June 2021 and is expected to further recover by end-2021. Gasoline sales by state refiners stood at 2.12 million tonnes in June 2021, registering an increase of 5.7% YoY.

India is set to expand India's natural gas grid to 34,500 kms by adding another 17,000 km gas pipeline. The regasification capacity of the existing 42 MMT per annum will be expanded to 61 MMT per year by the year 2022. (*Source:* India Brand Equity Foundation, www.ibef.org,)

> F. Competition Law

The Competition Act, 2002 & Establishment of the Commission: The Parliament enacted the Competition Act, 2002 with objectives - (a) to prevent practices having adverse effect on competition; (b) to promote and sustain



competition in markets; (c) to protect the interests of consumers; and (d) to ensure freedom of trade carried on by other participants in markets, in India, and for matters connected therewith or incidental thereto.

Steps for ease of doing business in the wake of COVID restrictions:

2.1 Uninterrupted Functioning

During COVID induced restrictions, CCI proactively initiated a system of electronic filing and digital payment of fees. For the benefit of all stakeholders, dedicated helplines were set up and various guidelines issued from time to time. Furthermore, statutory and other meetings were conducted in the virtual mode, and information, notices, and submissions were accepted electronically. Thus, the need for physical interaction with the Commission was nearly eliminated. Further, all proceedings with parties were seamlessly conducted by CCI through the virtual mode. On the merger control side, pre-filing consultations were facilitated through the video conferencing mode.

The investigation arm (Office of the Director General/DG) adopted new legally acceptable methodology to take digital depositions during investigations, duly maintaining the sanctity and integrity of the process. A contactless deposition room was constructed with complete sanitisation measures in place, and a glass partition between the investigating officer and the deponent for taking the in -person deposition. Another glass-partitioned chamber was arranged to provide seating of the accompanying lawyers. These measures allowed CCI to decide the cases on time even during the lockdown without disturbance to trade and industry.

2.2 Easing Compliance

CCI took several initiatives to ease compliance burden by constantly and dynamically reviewing its processes to make them market friendly.

On merger control, CCI continued its efforts to streamline and amend its procedures and regulations to promote a trust-based system and reduce compliance requirement. CCI amended the Merger Control Regulations to dispense with the requirement of providing information on non-compete arrangements in merger filings. This has provided parties to the combination with the required flexibility in negotiating non-compete clauses and reduced the information requirements at the time of notifying the combination. Further, revised guidance notes were issued which gives parties to the combination clarification notes on the information to be filed with CCI.

For facilitating filings, CCI issued a practice direction, enabling parties to authenticate pleadings through any of their authorized representatives instead of filing them through Directors as per the extant practice.

3. Conferences:

3.1 National Conference on Economics of Competition Law: The Competition Commission of India (CCI) organized the National Conference on Economics of Competition Law on March 5, 2021. This was the sixth edition of the Conference, which the CCI has been organizing since 2016, with the aim of bringing together scholars, practitioners, academicians and experts working in the area of economics of competition law. Owing to the ongoing pandemic, the Conference was organized in virtual mode this year. The one-day Conference was an endeavor to develop and sustain interest in economics of competition law and create a critical mass of antitrust economists in the country. The objectives of the Conference include (a) to stimulate research and debate on contemporary issues in the field of economics of competition law, (b) to develop a better understanding of competition issues relevant to the Indian context and (c) to draw inferences for enforcement of competition law in India, among others.

4. Workshops and Market Studies:

4.1 Workshop on Competition Issues in the Telecom Sector in India- The Competition Commission of India ('CCI') conducted a 'Market Study on the Telecom

Sector in India' with the objective of developing a clear understanding on issues impacting competition in the sector. Consequent to the Study, the CCI conducted a Workshop on Competition Issues in Telecom Sector in India on 5th February, 2021. It was organized virtually through video conferencing mode. The Workshop brought together all relevant stakeholders on a platform to deliberate on emerging trends and issues pertinent for regulation and competition law enforcement and their implications for markets and competition. Shri Anshu Prakash, Chairman, DCC& Secretary, DOT, GOI delivered the Keynote Address in the workshop. This, in a way, was also a first-of-its-kind forum for inter-regulatory exchange of views in the telecom sector, which was deemed critical to keep regulatory efforts ahead of the curve in the face of ever-changing market conditions and business practices.

- 4.2 Workshop on Competition Issues in the Pharmaceutical Sector in India-The CCI organised a virtual workshop on 'Competition Issues in The Pharmaceutical Sector in India' on 27th August, 2021. The Public Health Foundation of India (PHFI) was the Knowledge Partner for the workshop. The Workshop was an attempt to facilitate exchange of views across stakeholder groups including doctors, representatives of pharma companies, representatives of various pharma associations, stockists, chemists, representatives of online pharmacies, sector experts, regulators and policy makers on the focus areas of the study. Dr. Vinod Paul, Member, NITI Aayog, delivered the Keynote Address in the Workshop.
- 4.3 Market Study on Telecom Sector in India- The Competition Commission of India with implementing partner Indian Council for Research on International Economic Relations ("ICRIER") conducted a 'Market Study on the Telecom Sector in India'. The objective of the study was to develop a clear understanding of competition dynamics in the sector. Interactions with stakeholders, including telecom operators, equipment manufacturers, content companies, academics, sector experts, business associations and government formed a core part of the study. An online survey was designed to capture changing consumer preferences for telecom

services in India. The Study is completed with observations on issues related to parameters of competition, vertical integration, infrastructure sharing, unbundling of infrastructure and services, traffic management, spectrum acquisition and collection of data among other issues impacting competition. The key trends and the main competition issues that have emerged from the study is summarised in a report and is now available on the CCI website.

- 4.4 Market Study on Common Ownership in India- The Competition Commission of India with implementing partner M/s Deloitte Touche Tohmatsu India LLP has initiated a 'Market Study on the Common Ownership in India w.e.f. 31st March, 2021. The Study is an attempt to understand a situation where large institutional shareholders hold minority stakes in a number of companies that are active in the same industry and compete with each other. It aims to gain visibility into markets with substantial institutional investor, gauge the trends and patterns in common ownership across various sectors in India, institutional investor's underlying incentives and motivations behind such investments, to understand common shareholders' rights on decision-making process of a firm that may consequently impact competition.
- 4.5 Market Study on Film Distribution Chain The Competition Commission of India has initiated a process of conducting Market Study on the Film Distribution Chain in India. The Study will attempt to, inter alia understand role of various federations and associations in the film industry in India, the issues in Digitization of cinema and use of technology to provide exclusive exhibition rights, the role of multiplexes, OTT and other platforms for exhibition of cinema and the impact of the practices on development of cinema in India and its effect on stakeholders including cine-goers. The study also aims to ascertain unequal revenue sharing arrangements that may exist as a result of exercise of market power by certain entities, and/or are result of coordination between participants in the value chain .The study will also looks into effect on competition when different activities pertaining to production,

distribution and exhibition become part of exclusive arrangement either between different unrelated entities (or is offered as a bouquet by entities forming part of the same group.

5. Advocacy activities:

- **5.1** Pursuant to the mandate given under sub-section (3) of Section 49 of the Competition Act, 2002, the Competition Commission of India ("the Commission") undertook various competition advocacy initiatives such as:
- i. To enhance its regional footprints, the Commission opened its first **Regional Office (SRO) in Chennai** on 26th February, 2021 which was virtually inaugurated by the Hon'ble Union Minister of Finance and Corporate Affairs Smt. Nirmala Sitharaman in the august presence of the Hon'ble Union Minister of State for Finance and Corporate Affairs Shri Anurag Singh Thakur.
- ii. The first volume of CCI's annual Journal "Competition Commission of India Journal on Competition Law and Policy" (ISSN: 2582-838X) has been inaugurated by Smt. Nirmala Sitharaman, Hon'ble Minister of Finance and Corporate Affairs on the occasion of 12th Annual day of CCI celebrated on 20th May, 2021.
- iii. CCI publishes a quarterly newsletter "FAIR PLAY" which provides a panoramic view of developments in the field of competition law in India and abroad during a quarter. During the reported period, 03 issues of Commission's newsletter 'FAIR PLAY' were published in English and Hindi.
- iv. The Commission conducts a monthly internship programme for students of law, economics and management whereby the interns conduct research on issues of competition law, under the mentorship of an officer of the Commission. The internship programme helps the students in gaining knowledge and experience regarding competition matters and procedures. During the reported period, 251 students from various law, economics and management departments and professional institutions underwent internship at CCI. Notably, given the constraints

imposed by the pandemic, CCI had switched to Internship through the online mode from May 2020 onwards, and, since then, students from across the country have benefited from the CCI Online Internship programme.

- v. A paper titled "Competition Enforcement and Regulatory Alternatives" was submitted for Topic 1 'Roundtable on Regulation and Competition Enforcement (WP2)' on May 2021, as a written contribution for the OECD Competition Week (Virtual) held during 7-11 June 2021.
- vi. State governments are an important stakeholder in the competition ecosystem. In order to take competition advocacy forward at the State level, CCI recently introduced the State Resource Person Scheme. Under the scheme, two retired officers from the State Government are appointed by the Commission. These officers disseminate awareness on competition law by imparting training and organizing workshops in their respective States for the procurement officers of various State Departments. In the reported period, the Commission conducted 146 advocacy programmes in the states/UTs of Odisha, Assam, Telangana, Kerala, Himachal Pradesh, Haryana, Uttar Pradesh and Uttarakhand under the State Resource Person Scheme. The State government departments and PSUs were sensitized on designing competition efficient public procurement systems and detecting warning signals on bid rigging to report suspicious cases to CCI.
- vii. To reach out to a wide spectrum of stakeholders of competition law in an effective manner, the Commission conducted 110 competition advocacy programmes specific to the needs of stake holders which are as follows 67 with educational institutions, 01 with training academies, 16 with Trade Associations and 26 others. Notably, to equip law students in nuances and intricacies of competition law, the Commission also organised/sponsored 4 Moot Court Competitions in various law schools and universities.

> G. Ports and Shipping

India has 12 major and 205 notified minor and intermediate ports. Under the National Perspective Plan for Sagarmala, six new mega ports will be developed in the country. The Indian ports and shipping industry play a vital role in sustaining



growth in the country's trade and commerce. India is the sixteenth-largest maritime country in the world with a coastline of about 7,517 kms. The Indian Government plays an important role in supporting the ports sector. It has allowed Foreign Direct Investment (FDI) of up to 100% under the automatic route for port and harbour construction and maintenance projects. It has also facilitated a 10-year tax holiday to enterprises that develop, maintain and operate ports, inland waterways and inland ports.

Market size:

India's key ports had a capacity of 1,534.91 million tonnes per annum (MTPA) in FY20. In FY21, all key ports in India handled 672.60 million tonnes (MT) of cargo traffic.

Merchandise exports reached US\$ 290.63 billion in FY21. The Government has taken several measures to improve operational efficiency through mechanisation, deepening the draft and speedy evacuations.

Between April 2021 and August 2021, cargo handled by India's 12 state-owned major ports recorded an increase of 19.54%, from 245.289 MT to 293.226 MT.

(Source: India Brand Equity Foundation www.ibef.org)

Developments:

- In March 2021, Adani Ports and Special Economic Zone Limited (APSEZ) announced plans to acquire 58.1% stake in Gangavaram Port Limited for Rs. 36.04 billion (US\$ 493.7 million). The port is currently owned by DVS Raju and family
- In March 2021, Adani Ports announced to partner with John Keells Holdings and Sri Lankan Ports Authority to develop and operate the West Container Terminal of the Colombo Port in Sri Lanka for 35 years
- In February 2021, JNPT (Jawaharlal Nehru Port Trust) launched a comprehensive solid waste management project as a part of its green port initiatives.
- In November 2020, Mormugoa Port Trust (MPT), operator of the western Indian port of Mormugoa, extended concessions on iron ore imports and export freight traffic until June 2021 to help ease India's iron ore shipping trade amidst the COVID-19 pandemic.
- In November 2020, JSW Infrastructure completed the acquisition of Chettinad Group's port business for ~Rs 1,000 crore (US\$ 135.50 million). This acquisition will enable JSW Infrastructure to gain ownership and operational control of a deep draft international coal terminal and a bulk terminal at Kamarajar Port Limited (KPL) as well as coal and bulk commodity terminal at New Mangalore Port Trust (NMPT).
- In October 2020, Adani Ports and Special Economic Zone Limited (APSEZ) completed the acquisition of Krishnapatnam Port Company Ltd. (KPCL) for an enterprise value of Rs 12,000 crore (US\$ 1.63 billion)
- In July 2020, Adami Ports and Special Economic Zone (SEZ) Ltd, launched an offshore bond offering, raising ~US\$ 750 million.

(Source: India Brand Equity Foundation www.ibef.org)

Government Initiatives:

Some of the major initiatives taken by the government to promote the ports sector in India are as follows:

- In Union Budget 2020-21, the total allocation for the Ministry of Shipping was Rs. 1,702.35 crore (US\$ 233.48 million).
- The key ports are expected to deliver seven projects worth more than Rs. 2,000 crore (US\$ 274.31 million) on a public-private partnership basis in FY22. Private sector investments in ports have steadily increased over the last five years, touching an all-time high of US\$ 2.35 billion by 2020.
- The Finance Minister proposed to double the ship recycling capacity of \sim 4.5 million light displacement tonnes (LDT) by 2024; this is expected to generate an additional \sim 1.5 lakh employment opportunities in India.
- In Union Budget 2021, the government announced subsidy funding worth Rs. 1,624 crore (US\$ 222.74 million) to Indian shipping companies to encourage merchant ship flagging in the country.
- In February 2021, the Major Port Authorities Bill, 2020 was passed by the Parliament of India. The bill aims to decentralise decision-making and reinforce excellence in major port governance.

(Source: India Brand Equity Foundation www.ibef.org)

Future Road Map:

Increasing investment and cargo traffic point towards a healthy outlook for the Indian ports sector. Providers of services such as operation and maintenance (O&M), pilotage and harbouring and marine assets such as barges and dredgers are benefiting from these investments.

The capacity addition at ports is expected to grow at a CAGR of 5-6% till 2022, thereby adding 275-325 MT of capacity.

Domestic waterways have found to be a cost-effective and environmentally sustainable mode of freight transportation. The government aims to operationalise 23 waterways by 2030.

As part of the Sagarmala project, more than 574 projects worth Rs. 6 lakh crore (US\$ 82 billion) have been planned for implementation between 2015 and 2035.

In Maritime India Summit 2021, the Ministry of Ports, Shipping and Waterways identified a total of 400 projects worth Rs. 2.25 lakh crore (US\$ 31 billion) investment potential.

India's cargo traffic handled by ports is expected to reach 1,695 million metric tonnes by 2021-22 according to a report by the National Transport Development Policy Committee.

(Source: India Brand Equity Foundation www.ibef.org)

Activities during the year 2020-21

Zero Covid impact on Programs of FOIR

With the advent of the COVID-19 pandemic, FOIR Center swiftly moved from offline/in-person mode to virtual mode. All the activities conducted by FOIR in the FY 2020-2021 were undertaken virtually with zero covid-19 impact. The sessions were convened online via Blackboard LMS for participants across India and speakers from around the globe were invited to interact with the FOIR member bodies on various regulatory aspects.

International Webinars Series:

1st Webinar with Mr. Stephen Gibson, Board Member and Interim Chair of the UK Government's Regulatory Policy Committee (RPC), UK 20th May 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) has successfully conducted a Webinar with Mr. Stephen Gibson, Board Member and Interim Chair of the UK Government's Regulatory Policy Committee (RPC) on "Better Regulation Framework in UK and the Role of Regulatory Policy Committee" on 20th May 2020 (Wednesday). The Webinar with Mr. Stephen Gibson is part of a Webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The Webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and experienced regulatory officials. The participants of the webinar were officials from FOIR member organizations, government officials, faculties and others working in the field of regulation.

PROGRAM FLOW:

The Webinar was led by Mr. Stephen Gibson, Board Member and Interim Chair of the UK Government's Regulatory Policy Committee (RPC) and moderated by Dr. Abha Yadav, Head, School of Competition Law & Market Regulation & Director, FOIR Centre.

The program was initiated with a welcome speech by Dr. Abha Yadav. She introduced the participants with the format of the webinar and commenced the program with a brief introduction of the respected speaker Mr. Stephen Gibson.

Mr. Gibson, in his session covered in detail the Fundamentals of Better Regulation, Impact assessments and Regulatory Scrutiny in the UK. He introduced the participants with the origins & objectives of Better Regulation and elaborated the five principles of Better Regulation developed by the Better regulation task force (2005).

Mr. Gibson threw light on various related aspects of Better regulation such as the Better regulation commitments in the 2010 Coalition agreement, achievements of 2010-15 Better regulation, Small & Micro Business Assessment (SaMBA), Small Business, Enterprise & Employment Act,2015 (SBEE), Better Regulation Key bodies, UK Business Impact target, the ROAMF Cycle etc.

His session laid great importance on the Regulatory impact assessments performed in the UK & an impact assessment template was shared with the participants, explaining each aspect of the document. Mr. Gibson further elaborated the benefits of conducting a cost benefit analysis in impact assessments and the monetized & non-monetized factors affecting the impact assessments.

The session was engaging, and energetic participation was seen in the Webinar. Questions were taken up from the participants at the end of the session, which were enthusiastically answered by Mr. Stephen Gibson. The Question-answer round began with a question from Mr. Dhanendra Kumar, Former Chairman, Competition Commission of India (CCI), who congratulated the speaker for an excellent presentation and referred to his experience of the Regulatory Impact assessment, during his positioning as a committee member for development of Regulations on Competition policy. He requested the views of the speaker with respect to the conduct of impact assessment of the regulations being laid down by the government in the current Covid-19 scenario, which was keenly answered by Mr. Gibson.

A series of questions from participants with respect to regulatory impact assessments, doctrine of proportionality, self-regulation etc. were raised by the participants from Telecom Regulatory Authority of India (TRAI), Insolvency & Bankruptcy Board of India (IBBI), Competition Commission of India (CCI) and effectively answered by Mr. Gibson.

The regulators learned from the best practices followed in the United Kingdom and seemed eager to apply the same in their area of regulation in India. The session gave them an insight on the Better regulation framework of UK, through expert experience and advise. Many best practices & procedures used in the UK that the regulators were unaware of were discussed in detail.

The Participants showed great interest and requested a copy of the presentation by Mr. Gibson for reference. The Speaker and the participants appreciated IICA for organizing the Webinar & appreciated the program's content and Speaker.

The Webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA)

Photos from the 1st webinar:



2nd Webinar with Ms. Loretta Joseph, Fintech Advisor to Mauritius 27th May 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a webinar with Ms. Loretta Joseph, Fintech Advisor to Mauritius Government's Financial Services Commission (FSC) on "Regulation of Digital Assets" on 27th May 2020 (Wednesday). The webinar with Ms. Loretta Joseph is the second webinar of a weekly webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior regulatory officials. The participants of the webinar include officials from FOIR member organizations, government officials, academicians and others working in the field of regulation.

PROGRAM FLOW:

The Webinar was led by Ms. Loretta Joseph, Fintech Advisor to Mauritius Government's Financial Services Commission (FSC) on "Regulation of Digital Assets" and moderated by Dr. Abha Yadav, Head, School of competition law & market regulation & Director, FOIR Centre.

The program was initiated with a welcome speech by Dr. Abha Yadav. She introduced the speaker Ms. Loretta Joseph and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Ms. Loretta explained the concept of blockchain technology to the participants from a regulatory and Industry point of view. She shared her experience of getting introduced to the concept of regulation of blockchain while trading at the stock market. She encouraged the participants to read the white paper on Bitcoin titled "Bitcoin: A Peer-to-Peer Electronic Cash System" authored by Mr. Satoshi Nakamoto, the mystery inventor of bitcoins.

Ms. Loretta, in her session elaborated the importance of Know your Customer (KYC)policy, Anti-money laundering (AML) and Anti-terrorizing financing (ATF) on the cryptocurrency platform. She highlighted some of the cases where individuals involved in criminal activities from several countries were caught by tracking the bitcoin movement on the blockchain technology, highlighting how blockchain is a transparent, secure & traceable network compared to cash transactions which cannot be traced & is often used in illegal activities.

Dr. Abha moderated the question-answer round, where a series of questions from participants with respect to the efficiency of blockchain in poor internet connectivity, blockchain in coherence with smart contracts, blockchain in energy & infrastructure sector, Liability of blockchain platform providers with an anti-trust

perspective, legal status of tokens in Australia, issue of big data in platform markets, carbon credits, malware in crypto currency system, blockchain groups, regulation of blockchain by central banks, internet censorship & blockchain, use of blockchain in education sector etc. were raised by the participants from various regulatory bodies such as Central Electricity Regulatory Commission (CERC), Competition Commission of India (CCI) and other participants from the field of regulation, which were effectively answered by Ms. Loretta.

The participants received great insights on blockchain technology from the subject expert and gained from her experiences. She also recommended the participants to watch the Tedx talk by Don Tapscott on "How the blockchain is changing money & business". The Speaker and the participants appreciated IICA for organizing the Webinar & appreciated the program's content and Speaker.

The Webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 2nd webinar:



3rd Webinar with Dr. Thibault Schrepel, Faculty Associate, Berkman Center, Harvard University & Assistant Professor, European Economic Law, Utrecht University

3rd June 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a webinar with Dr. Thibault Schrepel, Faculty Associate, Berkman Center, Harvard University & Assistant Professor, European Economic Law, Utrecht University School of Law, Netherlands on "Competition Law and Blockchain" on 3rd June 2020 (Wednesday). The webinar with Dr. Thibault Schrepel is the third webinar of a weekly webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior regulatory officials. The participants of the webinar includes officials from FOIR member organizations, government officials, academicians and others working in the field of regulation.

PROGRAM FLOW:

The Webinar was led by Dr. Thibault Schrepel, Faculty Associate, Berkman Center, Harvard University & Assistant Professor, European Economic Law, Utrecht University School of Law, Netherlands and moderated by Dr. Abha Yadav, Head, School of competition law & market regulation & Director, FOIR Centre.

The program initiated with a welcome speech by Dr. Abha Yadav. She introduced the speaker Dr. Thibault Schrepel and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Dr. Thibault, in his session explained the concept of blockchain technology & its anti-trust perspectives to the participants in an easy and effective manner. He first explained the technicalities of the blockchain platform in order to create a link between the blockchain technology and competition law for better understanding of the participants.

The session was split into three sections i.e. Blockchain 101, the Broad picture and the Small picture. Section one, 'Blockchain 101' covered the basics of the blockchain technology and its key characteristics. Section two, the 'Broad picture' explained the implications of blockchain on competition law and discussed the big issues & solutions surrounding the blockchain technology whereas section three, the 'Small picture' elaborated the concept of anti-competitive practices and the regulation enforcements.

He encouraged the participants to read his paper on "Blockchain Code as Antitrust", co-authored with Vitalik Buterin, founder of the second largest cryptocurrency platform, 'Ethereum'. He also referred to an article titled "The nature of the Firm" written by Nobel-winning author Ronald Coase, which marked the base of the modern business law and competition law. Dr. Thibault elaborated the theory stated by Ronald Coase and shared with the participants his work in furtherance to the same titled "The theory of granularity: A Path for Antitrust in Blockchain Ecosystems".

The technicalities of the blockchain technology were explained by Dr. Thibault in a simple manner for the understanding of the regulators and participants who are from a non-tech background. he used several examples to explain the concepts of blockchain technology to the participants, which was very effective. The session was engaging, and energetic participation was seen in the webinar. Questions were

taken up from the participants at the end of the session, which led to a healthy discussion. Dr. Thibault shared reference material to the session, which was shared with the participants prior to the webinar.

Dr. Abha moderated the question-answer round, where a series of questions from participants with respect to use of blockchain by autonomous companies & government agencies, Libra (digital currency proposed by Facebook), regulation of blockchain-based Authentication process, Block chain to assess the market power of firms in merger screening & looking into abuse of dominance, liability of companies in case of misuse of blockchain, data brokerage, smart contact vs. leniency applications etc. were raised by the participants from various regulatory bodies such as Competition Commission of India (CCI), several academicians and other participants from the field of regulation, which were effectively answered by Dr. Thibault. On being questioned on the use of blockchain by government entities, Dr. Thibault encouraged the participants to refer to Gartner's report on adoption of blockchain by public & private entities to obtain precise statistics on the same.

The Webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 3rd webinar:



4th Webinar with Mr. Ariel Ezrachi, Slaughter and May Professor of Competition Law and Director, Centre for Competition Law and Policy, University of Oxford on "Digital Markets and Competition Law"

10th June 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a webinar with Mr. Ariel Ezrachi, Slaughter and May Professor of Competition Law and Director, Centre for Competition Law and Policy, University of Oxford on "Digital Markets and Competition Law" on 10th June 2020 (Wednesday). The webinar with Mr. Ariel Ezrachi is the fourth webinar of a weekly webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior regulatory officials. The participants of the webinar included officials from FOIR member organizations, government officials, academicians, various competition law professionals from top law firms of India such as Shardul Amarchand Mangaldas & Co., Trilegal etc. and others eminent professionals from the field of competition law and market regulation.

PROGRAM FLOW:

The Webinar was led by Mr. Ariel Ezrachi, Slaughter and May Professor of Competition Law and Director, Centre for Competition Law and Policy, University of Oxford and moderated by Dr. Abha Yadav, Head, School of competition law & market regulation & Director, FOIR Centre.

The program initiated with a welcome speech by Dr. Abha Yadav. She introduced the speaker Mr. Ariel Ezrachi and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Mr. Ariel Ezrachi explained the concept of Digital Economy and its competition law perspectives to the participants in an effective manner. He covered various related topics such as benefits of digital economy, Power of platform business markets, Policy debate questions, Anti-competitive activities in the digital markets, Market power & self-favoritism, Quality degradation & exploitation, Data harvesting, Behavioral discrimination and Digital Collusion.

Mr. Ezrachi shared various examples & explained how a single provider with voice recognition feature providing multiple services such as ordering a taxi, buying a product etc. acts as a Digital butler to the consumers and is taking control of their choices. The consumers who agree to the terms of the providers are giving power to the providers to choose from several market players to offer them a particular service, creating a distortion of competitive market. He also referred to the popular Facebook case on abuse of dominance for use of data and threw light on various arguments in the case.

He shared his views on the workings of the digital ecosystem and elaborated how it is designed to hook the users to create a massive engagement with consumers, extract personal data and use that data to further attract bidders. He stated that the participants may refer to his book titled 'Competition Overdose' co-authored with Maurice E. Stucke to understand the concept in detail.

By the end of the session, the participants gained knowledge on various subjects and received answers to questions such as the amount of competitiveness in the online environment and the extent to which the digitalized hand still hold stay. The participants reflected on how to be mindful of risks and costs of over and under intervention and the impact of anti-competitive practices on the market for goods & services and the market for ideas. The session was engaging, and energetic

participation was seen in the webinar. Questions were taken up from the participants at the end of the session, which led to a healthy discussion.

The Question-answer round moderated by Dr. Abha Yadav began with a question from Mr. Dhanendra Kumar, Former Chairman, Competition Commission of India (CCI) on the role of big data in mergers & acquisitions with respect to data harvesting & other anti-competitive practices, which was effectively answered by Mr. Ezrachi. Several other questions with respect to intervention of government in anti-competitive practices by digital markets, seller concerns on fair share on digital platforms, algorithm regulation by use of algorithm applications by regulators, suggestions on design of algorithms, enforcement of anti-trust laws in oligopolies, defense of increased efficiencies, Google's shopping case etc. were raised by the participants from various regulatory bodies such as Competition Commission of India (CCI), several law firms and other participants from the field of competition law and regulation, which were impressively & effectively answered by Mr. Ezrachi.

The Webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 4th webinar:



5th Webinar with Mr. Eric Thomson, Founder, Envelope Economics & Ex-OECD Regulatory expert

17th June 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a webinar with Mr. Eric Thomson, Founder, Envelope Economics & Ex-OECD Regulatory expert on "Cost-Benefit Analysis of the Socio-economic and Financial Impact of Regulations" on 17th June 2020 (Wednesday). The webinar with Mr. Eric Thomson is the fifth webinar of a weekly webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior regulatory officials. The participants of the webinar include officials from FOIR member organizations, government officials, academicians and others working in the field of regulation.

PROGRAM FLOW:

The Webinar was led by Mr. Eric Thomson, Founder, Envelope Economics & Ex-OECD Regulatory expert on "Cost-Benefit Analysis of the Socio-economic and Financial Impact of Regulations" and moderated by Dr. Abha Yadav, Head, School of competition law & market regulation & Director, FOIR Centre.

The program was initiated with a welcome speech by Dr. Abha Yadav. She introduced the speaker Mr. Eric Thomson and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Mr. Eric Thomson explained the concept of Cost-benefit analysis and gave in-depth knowledge on the benefits and limitations of cost-benefit analysis, the process to identify costs & benefits and how to use all of it together. He covered aspects such as the challenges involved in conducting a cost-benefit analysis and stages of the cost benefit analysis process.

The Cost benefits analysis process was effectively elaborated to the participants by categorization and diagrammatic representation on the topic. Mr. Thomson in his session, elaborated that the cost benefit analysis process has various steps involved, starting from identifying the issue for which the regulations are made and ending with the actual measurement of the risk associated with the proposed regulation, which further becomes the base for taking decisions or adopting a particular regulation by the regulators. Mr. Thomson suggested the below process for conduct of an efficient and effective cost-benefit analysis:

- Specifying the issue and options
- Identifying who is affected
- Determining the baseline
- Identifying the costs & benefits
- Measuring the costs & benefits
- •Discounting the values over time, performing a sensitivity analysis/risk assessment
- Making a decision.

Mr. Eric Thomson used a case-based approach and took various examples, one such example being the cost benefit analysis conducted by the Canadian government for a new regulation to be launched for the road and railway safety. The tabular representation in his presentation depicted the results of the cost-benefit analysis with quantifiable impacts of the proposed regulation, which helped the participants gain better understanding of the subject.

Mr. Eric Thomson, in his session took another interesting example of the Vietnam Motorbike Laws, while focusing on the importance of consideration of alternatives to regulation before creation of a new one. He elaborated that the first stage of the cost benefit analysis process is specifying the issue beforehand in order to avoid creation of unnecessary regulations. In his example, he shared with the participants that the Vietnam government in order to increase the impact of an existing regulation of wearing helmets conducted several surveys, and after receiving inputs from the consumers, re-launched the helmet law and encouraged the producers to provide user-friendly colorful helmets, which increased the enforcement of the helmet regulation drastically. This saved the Vietnam government costs and time in creation of a new law and helped them identify ways to increase the efficiency of an existing one.

Mr. Eric Thomson also shared several tips & tricks for conducting a cost-benefit analysis, some of which are stated as below:

- Focus on most important benefits & costs & may ignore to quantify small impacts.
- Start with secondary sources. (No need to re-invent the wheel).
- Be aware of double counting. (Avoid transaction doubling)

He used diagrammatic representation and case-based approach to explain the concepts of Cost & Benefit analysis to the participants, which was very effective. The session was engaging, and energetic participation was seen in the webinar. Questions were taken up from the participants at the end of the session, which led to a healthy discussion. Mr. Thomson shared several references for the participants at the end of the Webinar.

Dr. Abha Yadav moderated the question-answer round, where a series of questions from participants with respect to the distribution impact of cost-benefit analysis, choice of discount rate between private & public rates, non-monetary factors in a cost-benefit analysis, application of cost benefit analysis within Indian regulatory

framework, Cost benefit for enforcement of regulations within regulators such as CCI, Methods to evaluate policy decisions, role of having an institutionalized flexibility for any potential uncertainties, Monitoring and feedback mechanisms for mandating cost benefit analysis, Cost benefit analysis & interest group influence etc. were raised by the participants from various regulatory bodies such as Competition Commission of India (CCI) and other participants from the field of regulation, which were effectively answered by Mr. Eric Thomson. Mr. Stephen Gibson, Interim Chair, RPC, UK also raised an interesting question on the use of statistical data in measuring the life expectancy of the population due to the current Covid-19 scenario, to which Mr. Thomson shared his views & explained the usefulness of statistical data for the health regulators in the current scenario.

The Webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 5th webinar:



6th Webinar with Mr. Daniel Trnka, Senior Policy Analyst, Regulatory Policy Division, OECD

24th June 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a Webinar with Mr. Daniel Trnka, Senior Policy Analyst, Regulatory Policy Division, Organisation for Economic Co-operation and Development (OECD) on "Regulatory Policy and Ensuring Quality of Regulations in OECD Countries" on 24th June 2020 (Wednesday). The webinar with Mr. Daniel Trnka is the sixth webinar of a weekly webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior regulatory officials. The participants of the webinar include officials from FOIR member organizations, government officials, academicians and others working in the field of regulation.

PROGRAM FLOW:

The Webinar was led by Mr. Daniel Trnka, Senior Policy Analyst, Regulatory Policy Division, OECD and moderated by Dr. Abha Yadav, Head, School of Competition law & Market regulation & Director, FOIR Centre.

The program was initiated with a welcome speech by Dr. Abha Yadav. She introduced the speaker Mr. Daniel Trnka and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Mr. Daniel Trnka explained the term "Regulation" as defined by OECD. He apprised the participants on OECD's work on regulatory reform and regulatory improvement from 1995 till date and introduced them to the latest series of OECD's Best practice principles for the regulators & the upcoming OECD work on regulation. He stated that OECD has come up with several country reviews of member countries and released indicators of regulatory quality, a paper on comparison of compliance of the 2012 recommendations by several countries.

He covered several topics such as the Elements of regulatory Policy and Governance, Policies for regulatory quality, Institutional framework and capacities for regulatory policies, Tools for developing new regulations, The process of Regulatory Impact Assessment, challenges of governance and methodology, Stakeholder Engagement, Reviewing existing regulations, Review approaches, Compliance enforcement and inspections, International Regulatory Cooperation and its importance

Mr. Daniel Trnka, in his session, stated that Institutional framework & capacity plays a crucial part in the regulatory framework of a country. He explained the importance of having a designated body for overseeing the quality of regulations through several examples of the US & UK. He referred to the United states presidential office, stating that it has an important role to play in the regulation making process as it oversees the quality of all the regulatory impact assessments conducted in the US. He took another example of the United Kingdom and apprised the participants of the fact that an independent body in the UK oversees the quality of the regulatory analysis process, before the draft regulations are submitted to the cabinet for discussions. This independent watch dog exists in 7 European countries and even though they are not part of the administration but they play an important role in overseeing the quality of regulations. Such independent bodies currently do not exist in many of the countries.

Dr. Abha Yadav moderated the question-answer round, where a series of questions from participants with respect to the importance of performance evaluation mechanism, his views on best performance evaluation mechanism adopted by a

country across the globe and non-quantifiable aspects of regulation, measurement of impact of regulation in case of regulators handling dual responsibility of profession regulation & overall regulation of a sector etc. were raised by the participants from various regulatory bodies such as Insolvency and Bankruptcy Board of India (IBBI) and other participants from the field of regulation, which were effectively answered by Mr. Daniel Trnka. The participants included several senior regulatory officials such as Mr. Satpal Garg, Member, PNGRB, Dr. Mukulita Vijayawargiya, Member, IBBI, Shri T. S. Balasubramanian, Member TAMP and many others.

The participants received great insights on ensuring quality of regulatory policy making from the subject-matter expert and gained from his experiences. The Speaker and the participants appreciated IICA for organizing the Webinar & appreciated the program's content and Speaker. Mr. Daniel Trnka specially thanked IICA for providing the opportunity to be able to interact with regulators in India.

The Webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 6th webinar:



7th Webinar with Dr. Pradyumna Bhagwat, Head of Research - FSR Global, Florence School of Regulation, Italy

1st July 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a webinar with Dr. Pradyumna Bhagwat, Head of Research - FSR Global, Florence School of Regulation, Italy on "Electricity Tariffs: Choices & Barriers" on 1st July 2020 (Wednesday). The webinar with Dr. Pradyumna Bhagwat is the seventh webinar of a weekly webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior regulatory officials. The participants of the webinar include officials from FOIR member organizations, government officials, academicians and others working in the field of regulation.

PROGRAM FLOW:

The Webinar was led by Dr. Pradyumna Bhagwat, Head of Research - FSR Global, Florence School of Regulation, Italy and moderated by Dr. Abha Yadav, Head, School of Competition law & Market regulation & Director, FOIR Centre.

The program initiated with a welcome speech by Dr. Abha Yadav. She introduced the speaker Dr. Pradyumna Bhagwat and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Dr. Pradyumna Bhagwat congratulated the School of Competition Law and Market regulation and FOIR Centre, IICA for organizing a series of seminars on varied topics

and bringing together regulators from across the country to encourage & enhance knowledge sharing, interaction & discussions among them.

Dr. Bhagwat apprised the participants on the impact of retail tariff on the consumer and shared the consumer's perspective on electricity tariff. The context of the session was dynamic tariffs for electricity retail at household or small consumer level. He covered several topics such as the components of retail electricity tariffs, rate making principles, taxonomy of Retail tariffs, reasons for applying dynamic tariffs, Integrating rapidly growing non dispatchable RES, DER and EV's, Increase in peak demand, Identifying choices & barriers while introducing dynamic prices, primary design choices, Implementation choices & barriers etc.

Dr. Bhagwat, in his session, shared the tariff design/ structure adopted by many countries such as Europe, US, Japan and many others. He stated that due to different nature of economies across the globe one cannot compare the tariff determination structure of various countries to each other, but the participants may refer to the tariff structure adopted by South Africa and Brazil for a comparing reference to India. Dr. Bhagwat also shared the amount of regulatory intervention that exists in tariff determination in several countries which gave an international perspective to the participants. The major three implementation barriers i.e. Physical &ICT infrastructure requirements, Market arrangement requirements and consumer behavior were also discussed in the session.

At the end of the session Dr. Bhagwat shared some Key insights for the regulators and takeaways from the session, which are as stated below:

- Diversity is observed in both the time varying dimensions and in implementation choices.
- Use of ToU is commonly observed and can be considered the first step in applying dynamic tariffs before considering more advanced approaches.
- When dynamic tariffs are introduced, regulatory intervention may be required to protect vulnerable consumers.

- Implementation of retail competition can be an enabler for providing consumers with a variety of options to choose from according to their needs.
- A careful ex-ante cost-benefit analysis of applying dynamic tariffs should be conducted

He used diagrammatic representation and case-based approach and gave numerous examples to elaborate the tariff determination process and its related aspects. The session was engaging, and energetic participation was seen in the webinar. Questions were taken up from the participants at the end of the session, which led to a healthy discussion.

Dr. Abha Yadav moderated the question-answer round, where a series of questions from participants with respect to countries with efficient tariff determination process, transition of countries in dynamic tariffs, time pricing or dynamic tariff structure, linking RE power for charging EVs and feeding Grid from charged EVs through dynamic tariff, Shadow Billing by Indian utilities, challenges in application of dynamic tariff etc. were raised by the participants from various state electricity regulatory commissions and other participants from the field of regulation, which were effectively answered by Dr. Pradyumna Bhagwat. The participants include several senior regulatory officials from across the country such as Mr. Dinesh Sarraf, Chairperson, PNGRB, Mr. M.K Goel, Chairperson, JERC's, Goa &UT, Mr. Arun Goyal, Member, CERC, Mr. Satpal Garg, Member, PNGRB, Dr. V.K Garg, Former chairperson, JERC's and many other dignitaries.

The participants received great insights on various aspects of dynamic tariffs from the subject-matter expert and gained from his experiences. The speaker and the participants appreciated IICA for organizing the Webinar & appreciated the program's content.

The Webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 7th webinar:



8th Webinar with Ms. Tierno Centella, Deputy Head of Unit G2 in the Cartels Directorate within DG Competition at European Commission

15th July 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a webinar with Ms. Tierno Centella, Deputy Head of Unit Cartels, DG Competition at European Commission on "Cartel Enforcement and Competition Law" on 15th July 2020 (Wednesday). The webinar with Ms. Tierno Centella is the eighth webinar of a weekly webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior regulatory officials. The participants of the webinar include officials from FOIR member organizations, government officials, academicians and others working in the field of regulation.

PROGRAM OUTLINE:

The webinar was led by Ms. Tierno Centella, Deputy Head of Unit Cartels, DG Competition at European Commission and moderated by Dr. Abha Yadav, Head, School of Competition law & Market regulation & Director, FOIR Centre.

The program was initiated with a welcome speech by Dr. Abha Yadav. She introduced the speaker Ms. Tierno Centella and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Ms. Tierno Centella thanked the School of Competition Law and Market regulation and FOIR Centre, IICA for organizing the webinar on cartel enforcement and competition law which would enhance knowledge sharing & increase discussions on the topic.

Ms. Tierno Centella informed the participants that Cartel enforcement is a priority for the competition law regulators across the globe because of the nature of its infringement followed by the competition issues raised by growing digital markets.

She covered several topics in her session such as the cartel enforcement models, sanctions for obstruction, due process of cartel enforcement, algorithms & cartels, feeding cases into pipeline using ex-officio & leniency instruments, settlements in EU Cartel enforcements, comparison of procedures, EU leniency for cartel enforcement, differential features in EU leniency, capacity for forensic analysis & digital investigation and reflection on competition enforcement in digital markets.

Ms. Centella elaborated the prosecutorial judicial model and administrative model of cartel enforcement and shared data on cartel fines imposed by the European commission in case of substantial infringement. She also explained the differential features in EU Leniency which are as stated below:

• Leniency is left entirely to the company's initiative

- Based on incentives, foster a race at all levels.
- All set out & motivated in the final decision to all parties.
- No leniency for individuals (no sanctions for individuals).
- Immunity applicants are addressees of a decision: single liability for damages.
- Decision making capacity rather than proposal to the judge by EU commission.

Ms. Centella apprised the participants about an e-leniency tool provided by the EU commission for filing corporate statements and other submissions in the context of leniency, settlement, and non-cartel cooperation proceedings. She also mentioned that a 24*7 tool referred to as "Anonymous whistleblower tool" for detection of cartels has also been established, which provides a platform for all kinds of corporate disclosures by whistleblowers. This tool further provides the feature of interaction between the commission and the whistleblower without disclosure of the whistleblower's identity.

Ms. Centella stated that digital development has accelerated in the world and many companies have overcome digital limitations with the availability of several e-tools such as cloud computing. The EU has a team of computer experts & analysts who perform data mining and machine learning methods to identify patterns and connections, further using deep learning methodology to identify data sets which is complicated to the human mind but is made accessible to the non-analysts with the use of graphic & intuitive presentations .

She also referred to exploring the 3-pillar approach on digital markets which is suggested & adopted by the EU commission, as stated below: -

- Increase in use of more Interim measures & it's firm enforcement
- New ex ante regulation: inception impact assessment for new rules (do's & don'ts)
- •Consideration of a new Competition Tool (NCT) to tackle structural problems (mainly in digital markets)

Dr. Abha Yadav moderated the question-answer round, where a series of questions from participants with respect to responsibility in case of algorithms used for pricing decisions, Data mining & AI, Leniency, Conflict in EU regulations and country specific rules etc. were raised by the participants from various regulatory commissions such as the Competition Commission of India (CCI) and other participants working in the field of competition law and market regulation, which were effectively answered by Ms. Centella. The participants include several senior regulatory officials from across the country such as Mr. G.S Rajamani, Founding member, CERC, Mr. Tapan Chatterjee, Former Member AERC, Guwahati etc.

The participants received great insights on the working of the European commission and tools adopted by them for cartel enforcement & identification of competition issues arising out of digital advancements. The speaker and the participants appreciated IICA for organizing the webinar & appreciated the program's content.

The webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 8th webinar:



9th Webinar with Dr. Peter Whelan, Professor of Law at the School of Law, University of Leeds, where he is the Deputy Director of the Centre for Criminal Justice Studies

22nd July 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a webinar with Dr. Peter Whelan, Professor of Law & Deputy Director-Centre for Criminal Justice Studies, University of Leeds on "Criminalization of Cartels" on 22nd July 2020 (Wednesday). The webinar with Dr. Peter Whelan is the ninth webinar of a weekly webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior regulatory officials. The participants of the webinar include officials from FOIR member organizations, government officials, academicians and others working in the field of regulation.

PROGRAM FLOW:

The webinar was led by Dr. Peter Whelan, Professor of Law & Deputy Director-Centre for Criminal Justice Studies, University of Leeds and moderated by Dr. Abha Yadav, Head, School of Competition law & Market regulation & Director, FOIR Centre. The program was initiated with a welcome speech by Dr. Abha Yadav. She introduced the speaker Dr. Peter Whelan and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Dr. Peter Whelan thanked the School of Competition Law and Market regulation and FOIR Centre, IICA for organizing the webinar on "Criminalization of Cartels" which would enhance knowledge sharing & increase discussions on the topic.

His presentation was divided into four sections with Introductory remarks, Primary Jurisdiction, Problematic issues & specific recommendations. he covered several topics in his session such as the Cartel activity & the scope for disagreement, Criminal sanctions, Deterrence theory, Primary justification for criminal cartel sanctions, Challenges in Criminal cartelization and recommendations for efficient cartel enforcement. He explained the Deterrence theory in detail and covered several arguments on the size of a deterrent fine, the deterrence gap, criminal sanctions fulfilling the deterrence gap and summarized the discussion to the below points:

- A fine of 150% of annual turnover is needed to deter an undertaking
- Fine cannot be imposed for practical reasons
- Turn to individual sanctions to fill the deterrence gap.
- •Sanctions must be more than mere monetary sanctions otherwise indemnification will occur (i.e. firms will pay fine).
- Custodial sanctions are non-indemnifiable.
- In addition: Custodial sanctions are also more condemnatory and more newsworthy than mere fines (which is important for deterrence)

Dr. Whelan elaborated the problematic issues in cartel enforcement as stated below & referred to his book titled "The Criminalization of European Cartel Enforcement" which talks about the theoretical, legal & practical challenges in Cartel criminalization in detail.

Major problematic issues in cartel enforcement are:

- Efficiency of criminal cartelization in practice
- Protection of administrative leniency program.

• Public attitudes on the acceptability of imprisonment for cartel activity

He also shared with the participants several recommendations for efficient Cartel enforcement in a country.

- **→** Criminal cartel sanctions should be considered by mature competition regimes.
- ★ Care needs to be taken in defining the Offence.
- → Authorities should rely upon methods of reducing the costs of criminalization.

He used diagrammatic representation & case-based approach and covered all the aspects of cartel enforcement. The session was engaging, and energetic participation was seen in the webinar. Questions were taken up from the participants at the end of the session, which led to a healthy discussion.

Dr. Abha Yadav moderated the question-answer round, where a series of questions from participants with respect to Jurisprudence of Cartel enforcement, Sanctions disqualifying directors, Civil & criminal liability, Sanctity of findings in civil offence, Independent directors' criminal liability. etc. were raised by the participants from various regulatory commissions such as the Competition Commission of India (CCI) and other participants working in the field of competition law and market regulation, which were effectively answered by Dr. Peter Whelan. The participants include several senior regulatory officials from across the country such as Mr. G.S Rajamani, Founding member, CERC & FOIR, Mr. R K Choudhary. Member BERC, Mr. Rajinder Kumar, Additional DG, CCI etc.

The participants received great insights on Cartel enforcement & it's related aspects. The speaker and the participants appreciated IICA for organizing the webinar & appreciated the program's content.

The webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 9th webinar:



10th Webinar with Ms. Laura Galindo-Romero, AI Policy expert OECD Artificial Intelligence Policy Observatory 29th July 2020

PROGRAM OUTLINE:

The School of Competition Law & Market Regulation and Forum of Indian Regulators (FOIR) Centre at Indian Institute of Corporate Affairs (IICA) successfully conducted a webinar with Ms. Laura Galindo - Romero, AI Policy expert, OECD Artificial Intelligence Policy Observatory on "Emerging Trends in AI Regulation" on 29th July 2020 (Wednesday). The webinar with Ms. Laura Galindo-Romero is the tenth webinar of an International webinar series organized by the School of Competition Law & Market Regulation to create awareness on various regulatory concepts, issues and International best practices. The webinar series covers a range of topics from the field of regulatory affairs and market regulation and engages speakers from across the globe including academicians, subject experts and Senior

regulatory officials. The participants of the webinar include officials from FOIR member organizations, government officials, academicians and others working in the field of regulation.

PROGRAM FLOW:

The program began with a welcome speech by Dr. Abha Yadav, Head, School of Competition law & Market regulation & Director, FOIR Centre. She introduced the speaker Ms. Laura Galindo - Romero and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the webinar to the participants.

Ms. Laura Galindo-Romero thanked the School of Competition Law and Market regulation and FOIR Centre, IICA for organizing the webinar which would enhance knowledge sharing & increase discussions on the topic.

The webinar was led by Ms. Laura Galindo-Romero, AI Policy expert, OECD Artificial Intelligence Policy Observatory on "Emerging Trends in AI Regulation" and moderated by Dr. Abha Yadav. The "Lead talk by Ms. Laura Galindo-Romero" was followed by a Question–answer round, where several questions were taken up from the participants by the moderator which were efficiently answered by the speaker.

Ms. Laura Galindo- Romero explained in detail the OECD's set of 10 principles out of which 5 are value-based principles i.e. Sustainability, Human Centre Approach to AI, AI Ability, the robustness of the system & accountability. The other five principles consider the other side of policy making on how countries can use tools to navigate & implement AI strategies which are Investments in AI, creating digital infra, Policy environment, Building AI skills & International cooperation. Further there are multiple initiatives from UN, latest one being roadmap to Digital UN and UNESCO conducting a consultation of an "ethical framework for AI".

The European union has developed couple of initiatives over the past few years on developing AI strategies. The EU White paper which was out for consultation

gathered more than 1400 opinions/suggestions from several stakeholders which are being analyzed and suggestions are being considered to improve the EU White paper. The EU White paper promotes an ecosystem of trust and excellence in AI for society.

National approaches

Countries are starting to develop guidelines on how to pursue AI in general. As the countries are still exploring AI, the approach is general in nature such as promoting self-regulation among AI developers (Tech companies) & other sectors of high risk (Mobility & healthcare).

She used diagrammatic representation & case-based approach and covered all the global perspective on framing AI strategies. The session was engaging, and energetic participation was seen in the webinar. Questions were taken up from the participants at the end of the session, which led to a healthy discussion.

The speaker and participants appreciated IICA for organizing the webinar & appreciated the program's content.

The webinar ended with a vote of thanks by Dr. Abha Yadav, Head, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 10th webinar:



➤ 1st Quarterly Webinar (Virtual Conference) of FOIR 23rd August, 2020

PROGRAM OUTLINE:

The Forum of Indian Regulators (FOIR) and the School of Competition Law & Market Regulation, Indian Institute of Corporate Affairs (IICA) in collaboration with the Bank of Mauritius and the Financial Services Commission, Mauritius organized the first quarterly webinar of FOIR in form of a Virtual Conference on "Digital Assets Regulation in India: Learnings from the Mauritius Model Framework" on 27th August, 2020. The main agenda for the conference was to discuss the need for regulation of digital assets and to learn from the model framework adopted in Mauritius. The main purpose of the conference was to promote dialogue between Indian and Mauritius regulators to ensure coherence in the global regulation of digital assets. The participants of the conference include chairpersons, members and officials from final sector regulators in India and FOIR member organizations.

PROGRAM FLOW:

The program began with a welcome speech by Dr. Abha Yadav, Associate Professor, School of Competition law & Market regulation & Director, FOIR Centre. She introduced the panelists and the chief guest and threw light on the relevance of the topic in the current scenario. Dr. Yadav further elaborated the format of the conference to the participants. The introduction was followed by inaugural remarks by Mr. Sanoj Kumar Jha, Secretary CERC and Executive Secretary FOIR. The conference began with opening note from Lord Desai, Member, British House of London and Emeritus Professor of Economics, London School of Economics and was followed by "Lead talk" by Ms. Loretta Jospeh, Fentech Advisor, FSC Mauritius. The presentation was accompanied by a Panel Discussion and Question–Answer round, where several questions were taken up from the participants by the moderator and efficiently answered by the panelists. The participants received insights on the

global perspective of regulation of Digital Assets adopted by several countries. The panelists and participants appreciated FOIR Centre & School of Competition Law and Market Regulation, IICA for organizing the conference & appreciated the program's content. The virtual conference ended with a vote of thanks by Dr. Abha Yadav, Associate Professor, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 1st quarterly webinar:



2nd Quarterly Webinar (Virtual Conference) of FOIR 23rd August, 2020

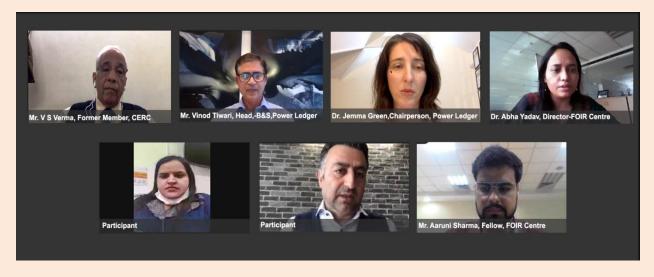
PROGRAM OUTLINE:

The Forum of Indian Regulators (FOIR) organized the second quarterly webinar of FOIR on "Interface of Blockchain and Energy Sector" on 2nd December, 2020. The aim of the webinar is to help the energy sector regulators, it's stakeholders and others holding interest in the area to build knowledge on this innovative interface of technology and energy sector. The participants of the webinar included members and officials from various regulatory bodies in India, researchers, experts in the power sector and FOIR member organizations.

PROGRAM FLOW:

The program began with a welcome speech by Dr. Abha Yadav, Associate Professor, School of Competition law & Market regulation & Director, FOIR Centre. She began by giving a brief introduction about the relevance of the topic highlighting importance of learning and adapting technological advancement. The brief on the theme of the webinar was followed by introduction of the speakers and their company 'Power Ledger'. Dr. Yadav further elaborated the format of the webinar to the participants. The webinar began with opening note from Dr. Jemma Green, Cofounder and Chairperson of Power Ledger followed by remarks from Mr. Tiwari, Head of Business Development and Sales, Power Ledger. The presentation by Dr. Green and Mr. Tiwari was accompanied Question-Answer round, where questions were taken up from the participants by the moderator and efficiently answered by the speakers. The participants received insights on electricity trading and usage of blockchain technology for facilitating the dispatch of electricity via virtual power plants to stabilize the grid. The speakers and participants appreciated FOIR Centre, IICA for organizing the webinar & appreciated the program's content. The Webinar ended with a vote of thanks by Dr. Abha Yadav, Associate Professor, School of Competition Law and Market Regulations and Director FOIR Centre (IICA).

Photos from the 2nd quarterly webinar:



> Two Weeks Online Capacity Building Seminar for Officers of FOIR Member Organizations

07 December- 18 December 2020

PROGRAM OUTLINE:

The Forum of Indian Regulators Centre at Indian Institute of Corporate Affairs has successfully conducted Two weeks Online Capacity Building Program for Regulatory Officials of FOIR Member Organizations between 07th December- 18th December, 2020. The theme of the training program was "Regulatory Performance Evaluation". A total of forty-three participants from different regulatory bodies such as TAMP, CCI, PNGRB, CERC, IBBI etc. attended the online capacity building program.

A total of ten sessions covered the pertinent areas over a course of two weeks on subjects relating to:

- Concept of Law and Regulation
- Best Practice Principles for Regulatory Policy
- Regulatory Challenges in Digital Markets in India.
- Tools and Techniques for Performance Evaluation of Regulators.
- Open house discussion on "Performance Evaluation within Regulatory bodies in India."
- Alternative Dispute Resolution in India.
- Blockchain and E-Governance in India.
- Introduction to Regulatory Impact Assessment.
- Regulatory Performance Evaluation
- Addressing the issue of sexual harassment in workplace.

The pedagogy of the program was based on online class room sessions, experiential learning and case studies for helping those seeking answers to the challenging questions and aspects.

PROGRAM FLOW:

The two weeks online Capacity Building Program on "Regulatory Performance Evaluation" began with the inaugural address of Mr. T. S. Balasubramanian, Hony. Vice-Chairman FOIR & **34402/2020/RA – CERC 51** Member (Finance) & Chairman In-Charge, TAMP. The experts engaged for delivering session included Dr. Geeta Gouri, Ex. Member, CCI; Mr. Rahul Singh, Partner Khaitan & Co.; Mr. Suresh Chandra, Information Commissioner at Central Information Commission (CIC); Mr. Tariq Khan, Principle Associate, Advani & Co.; Mr. Ishan Roy, Tamil Nadu e- governance Agency; Mr. Jonathan Cave Member, UK Regulatory Policy Committee; Prof. Amita Singh, President NAPSIPAG Centre for Disaster Research & Professor (Retd) Jawaharlal Nehru University, New Delhi; Prof. Punam Kumari, Presiding officer ICC, INU, New Delhi and Dr. Abha Yaday, Director FOIR Centre IICA.

The participants appreciated the program content, faculty and the training sessions. The certificate of successful competition of the capacity building program is sent by post to the organizations of the respective officers. The program was directed and moderated by Dr. Abha Yadav, Director FOIR Centre (IICA) and Associate Professor, School of Competition Law and Market Regulations.

Photos from the two weeks capacity building program:



➤ Three Weeks Online Capacity Building Seminar for Officers of FOIR Member Organizations

04th January- 22nd January, 2021

PROGRAM OUTLINE:

The Forum of Indian Regulators Centre at Indian Institute of Corporate Affairs has successfully conducted Three weeks Online Capacity Building Program for Regulatory Officials of FOIR Member Organizations between 04th January- 22nd January, 2021. The theme of the training program was "Emerging Regulatory issues in Digital Era". A total of thirty-six participants from different regulatory bodies such as AERA, CCI, PNGRB, CERC, IBBI etc. attended the online capacity building program.

A total of fifteen sessions covered the pertinent areas over a course of three weeks on subjects relating to:

- Introduction to Digital Economy
- Best Practice Principles for Regulatory Governance.
- Data Privacy and its Regulation.
- E-Governance in India
- Block chain & e-Governance in India
- Financial Technology and its Regulation in India
- Digital Economy and Competition Law
- Emerging Trends in the regulation of Artificial Intelligence.
- AI, Blockchain, and Data analytics for Regulators
- Regulators Role in Growth and Economic Crisis.
- Digital India and Right to Information
- Emerging digital era in Income Tax Regime
- Alternatives to Regulation.
- Constitution of India
- Group Discussion: Social Media and its Regulation in India

The pedagogy of the program was based on online class room sessions, Interactive discussions for experiential learning and exercises based on case studies and problem based questions in order to make the session engaging and for helping those seeking answers to the challenging questions and aspects on the theme.

PROGRAM FLOW:

The three weeks online Capacity Building Program on "Emerging Regulatory issues in Digital Era" began with the inaugural address of Dr. S K Chatterjee, Chief (Regulatory affairs), CERC. The experts engaged for delivering session included Dr. Geeta Gouri, Ex. Member, CCI; Mr. Rahul Singh, Partner Khaitan & Co.; Ms. Ginny Rautray, Rautray & Co., Advocates and Solicitors; Ms. Shilpa Mankar Ahluwalia, Partner, Shardul Amarchand and Mangaldas; Dr. Pramod Kumar, Registrar, Jawahar Lal Nehru University, New Delhi; Mr. Tariq Khan, Principle Associate, Advani & Co.; Mr. Vikas Kanungo, Senior Consultant - Digital Development Global Practice, The World Bank; Mr. Santosh M. (CEO, Tamil Nadu E-governance, Agency); Dr. Dewakar Goel, Chairman Aero Academy of Aviation Science and Management (AAASM); Mr. Sameer Sharma (IRS); Mr. Sanjeev Kumar, INU; Dr. P. Puneeth, Associate Professor of Law, Centre for the Study of Law and Governance, Jawaharlal Nehru University, New Delhi; Mr. Ishan Roy, Tamil Nadu e- governance Agency; and Dr. Abha Yadav, Director FOIR Centre IICA.

The participants appreciated the efforts put together by the team and the program content along with faculties on board for the training sessions. The certificate of successful competition of the capacity building program will be sent by post to the organizations of the respective officers. The program was directed and moderated by Dr. Abha Yadav, Director FOIR Centre (IICA) and Associate Professor, School of Competition Law and Market Regulations.

Photos from the three weeks capacity building program:



➤ Three Days Online Capacity Building Seminar for Officers of FOIR Member Organizations

08th February- 10th February, 2021

PROGRAM OUTLINE:

The Forum of Indian Regulators Centre at Indian Institute of Corporate Affairs has successfully conducted the Three Days Online Capacity Building Program for Chairpersons and Members of FOIR Member Organizations from 08th February-10th February, 2021. The overarching theme of the training program was "Effective Regulation and Stakeholders Consultation". A total of twenty-one chairpersons and members from different regulatory bodies such as TAMP, IBBI, JERC-GOA, DERC, IBBI etc. attended the online capacity building program.

A total of seven sessions were conducted, covering the pertinent areas over a course of three days on subjects relating to:

- Stakeholders Engagement in Regulatory Decision Making.
- Stakeholders Consultation in Regulatory Bodies in India.

- Achieving Regulatory Excellence.
- Need for Performance Evaluation of Regulators in India.
- Alternative to Regulations
- Regulatory effectiveness in the era of digitalization.
- Using Stakeholders data for better regulation

The pedagogy of the program was based on online class room sessions, experiential learning and active discussion with the guest speaker on challenges and plausible solutions to it.

PROGRAM FLOW:

The Three days online Capacity Building Program on "Effective Regulation and Stakeholders Consultation" began with the inaugural address of Dr. M S Sahoo, Chairperson, IBBI and Hony. Chairman FOIR. The experts engaged for delivering session included Dr. Geeta Gouri, Ex. Member, CCI; Mr. Jonathan Cave Member, UK Regulatory Policy Committee; Prof. Cary Coglianese, Edward B. Shils Professor of Law and Professor of Political Science Director, Penn Program on Regulation; Ms. Bhargavi Zaveri, Senior Researcher, Finance Research Group (FRG), Indira Gandhi Institute of Development Research (IGIDR); Dr. Amita Singh, President NAPSIPAG Centre for Disaster Research & Professor (Retd) Jawaharlal Nehru University, New Delhi; Mr. Vikas Kanungo, Senior Consultant, Digital Development Global Practice

The World Bank; Dr. Anirban Mazumdar, Associate Professor, Law, West Bengal National University of Juridical Sciences, Kolkata

The participants gave wonderful feedback on the program content, faculty and the training sessions. The program was directed and moderated by Dr. Abha Yadav, Director FOIR Centre (IICA) and Associate Professor, School of Competition Law and Market Regulations.

Photos from the three days capacity building program:



Virtual Colloquium for the serving Chairpersons of the Central Sector Regulatory Member Organizations of FOIR

23rd March 2021

PROGRAM OUTLINE:

The Forum of Indian Regulators Centre at Indian Institute of Corporate Affairs has successfully organized virtual colloquium for the serving Chairpersons of the Central Sector Regulatory Member Organizations of FOIR on the theme "Stakeholders Engagement in Regulatory Decision Making" on 23rd of March, 2021 over Blackboard LMS. The session was scheduled from 2:30 PM onwards. The program provided a platform for the chairpersons to indulge in discourse on various aspects of stakeholder's engagement in regulatory decision making, challenges faced therein and a way forward to it. The FOIR Center duly acknowledges the coordination and support received from FOIR Secretariat and CERC officials.

The panel in the colloquium comprised of, Mr. P.K Pujari, Chairperson, Central Electricity Regulatory Commission (CERC); Shri Ashok Kumar Gupta, Chairperson, Competition Commission of India (CCI); Dr. P. Vaghela, Chairman, Telecom Regulatory Authority of India (TRAI); Shri. T. S. Balasubramanian, Chairman in-

Charge, Tariff Authority for Major Ports (TAMP) & Shri Satpal Garg, Member, Petroleum and Natural Gas Regulatory Body (PNGRB).

FOIR in association with IICA had previously organized Colloquium in February, 2020 on the theme, "Ensuring transparency and accountability in regulatory framework" in furtherance to the previous theme the current colloquium was designed to discuss and deliberate on, "Stakeholder's engagement in decision making process".

The guest speaker for the day was, Mr. Andrew Williams-Fry, Director, Economic Regulation (Interim), Thames Water & Board Member, Regulatory Policy Committee, London, UK.

PROGRAM FLOW:

At the outset Dr. Abha Yadav, Associate Professor, School of Competition Law & Market Regulations & Director welcomed the panelists and the guest speaker, Mr. Andrew Williams followed by a brief background of the Colloquium on the theme 'Stakeholder's engagement in decision making process'. The panel discussion began with the introduction & opening points on the theme by Mr. Andrew Williams, moderator for the panel discussion. Mr. Williams began with his presentation by discussing the importance of stakeholder's engagement in a regulatory set-up. Two major reasons that Mr. Andrew identified while elaborating on the importance of stakeholder's engagement were, 'democratic process' which allows the people to decide the outcome and 'technocratic process' to create a policy path to those outcomes. In line with the purpose of the colloquium, Mr. Andrew brought to the table Scottish Government's 2019 guidelines on different forms of engagement followed by a detailed elaboration on risk involved in stakeholder's engagement and a way forward to these challenges. Post completion of the presentation, the moderator, Mr. Andrew kept some relevant points of discussion across the table and opened the floor for discussion. Some major points of discussion kept forth by the

moderator were, stakeholder's engagement practice in Indian regulatory structure; challenges faced by regulators in conducting stakeholder's consultation; routes explored to come over those challenges. All the panelists shared their views on the current regulatory mechanisms for stakeholder's engagement prevalent in their respective sectors. The panelists discussed how several kind of biasness prevails during process of collecting stakeholder's opinion and how the process has evolved with time to fight such challenges.

The panelist appreciated the efforts put together by the team. The guest speaker in his concluding remarks expressed his observations on the practice being followed by regulators across globe and expressed his willingness for further collaboration. The program was convened by Dr. Abha Yadav, Director FOIR Centre (IICA) & Associate Professor, School of Competition Law and Market Regulations.

Photos from the FOIR Colloquium:



> Three Months Online Certificate Course on Regulatory Governance-1st Batch.

October 2020- January 2021

COURSE OUTLINE:

The Forum of Indian Regulators Centre in association with the School of Competition Law and Market Regulation at Indian Institute of Corporate Affairs has

Governance" between October, 2020 to January, 2021. The sessions of the course on "Regulatory Governance" were scheduled on weekends to ensure that the participants can attend the course without compromising on their official work commitments. Considering the unprecedent times due to COVID pandemic, FOIR Centre at IICA successfully organized this three-month course through an online medium. The FOIR Center duly acknowledges the coordination and support received from FOIR Secretariat (CERC) and FOIR member organizations.

A total of fifty participants from different regulatory bodies such as TAMP, TRAI, PNGRB, CERC, IBBI, SERC's etc. attended the online certificate course.

The course covered 4 Modules comprising of 12 Units and Practicum sessions. The pertinent areas covered during the course are:

Module 1: Introduction to Regulations and Principles of Regulations

- •Unit 01: Fundamentals of Law and Regulation.
- •Unit 02: Legal and Constitutional aspects of Regulation in India.
- •Unit 03: Design for optimal and effective regulation.

Module 2: Regulatory Issues and Challenges in India

- •Unit 04: Regulatory architecture and challenges in India.
- •Unit 05: Inter and Intra-Sectoral Jurisdictional Conflicts.
- •Unit 06: Regulatory Compliance and Enforcement in regulatory Sector Framework.
- •Unit 07: Supervision, Surveillance and Administration Issues.

Module 3: Best Practices for Regulatory Governance

- •Unit 08: Transparency, Accountability and Independence of Regulators.
- •Unit 09: Engagement of Stakeholders and Performance Evaluation.

Module 4: Tools for better Regulation

- •Unit 10: Performance Evaluation Mechanisms.
- •Unit 11: Cost Benefit Analysis.
- •Unit 12: Regulatory Impact Assessment

To impart knowledge on the developments and best practices across different sectors, the course also included various Practicum/ Case Studies. These Practicum/ Case Studies provided the students with the Sector overviews, latest developments & regulation making process across different sectors such as power, electricity, competition law, Insolvency and Bankruptcy Sector etc.

The pedagogy of the course was based on online class room sessions, interactive discussions with area experts for experiential learning and exercises based on case studies and problem-based questions in order to make the session engaging.

Regular assessments were conducted after completion of every module for the participants comprising of MCQ questions and class room discussions. The final evaluation of the participants was based on Group Discussion covering prominent topics covered during the course of the program. The panel for the Group Discussion comprised of the Course Director, Dr. Abha Yadav and an external faculty from IICA, Dr. Garima Dadhich.

COURSE FLOW:

The three months online Certificate course on "Regulatory Governance" began on 17th October, 2020 with the inaugural address of Mr. Sanoj Kumar Jha, Secretary, CERC (Executive Secretary, FOIR). The experts engaged for delivering the sessions included Mr. Rahul Singh, Partner Khaitan & Co.; Dr. P. Puneeth, Associate Professor of Law, Centre for the Study of Law and Governance, Jawaharlal Nehru University, New Delhi; Ms. Srijoni Sen, NLSIU, Banglore; Mr. Anirudh Burman, Associate Fellow at Carnegie India; Dr. Pyla N Rao, Associate Professor, School of Corporate Law at

IICA; Prof. (Dr.) Vijay Vir Singh, Director NITI Aayog Chair and Director, UGC-Human Resource Development Centre at University of Rajasthan, Jaipur; Dr. Chatterjee, Chief (Regulatory Affairs), Central Electricity Regulatory Commission (CERC); Dr. Ajay Shah; Dr K P Krishnan, IEPF Chair Professor; Dr. Naveen Bali, Consultant, Department of Economic Affairs, Ministry of Finance; Dr. Renuka Sane, Associate Professor, National Institute of Public Finance and Policy (NIPFP); Eric Thomson, Founder, Envelope Economics; and Dr. Abha Yadav, Director FOIR Centre IICA.

Regular feedbacks were taken post successful completion of every session from the students. The parameters would include the usefulness of the content, effectiveness of delivery, Ability to interact and engage, class assignments and overall effectiveness of the session. The course has received wonderful feedback from the participants as well as the resource persons.

Photos from the three months regulatory governance course-1st Batch:



> Regulatory Digest- Bi-monthly eNewsletter of FOIR

FOIR has circulated the following bi-monthly eNewsletter:

- Regulatory Digest –FOIR eNewsletter (March 2020)
- Regulatory Digest –FOIR eNewsletter (April 2020)
- Regulatory Digest –FOIR eNewsletter (May-June 2020)
- Regulatory Digest –FOIR eNewsletter (July-Aug 2020)
- Regulatory Digest –FOIR eNewsletter (Sep-Oct 2020)
- Regulatory Digest –FOIR eNewsletter (Nov-Dec 2020)
- Regulatory Digest –FOIR eNewsletter (Jan-Feb 2020)
- Regulatory Digest –FOIR eNewsletter (Mar,2020-April 2021)

Meetings during the year 2020-21

> 47th Governing body meeting of the Forum of Indian Regulators

The 47th Governing Body meeting of FOIR was held on 26th June 2020 through virtual mode. The meeting was chaired by Shri R.S. Sharma, Hony. Chairperson, FOIR and Chairperson, TRAI. The meeting was also attended by Dr. M.S. Sahoo, Hony. Vice Chairperson, FOIR and Chairperson, IBBI, Shri P.K. Pujari, Hony. Vice Chairperson, FOIR and Chairperson, CERC, Shri Ashok Kumar Gupta, Hony. Vice Chairperson, FOIR and Chairperson, CCI in addition to other members of Governing Body.

The agenda of the meeting comprised of the confirmation of minutes of the 46thGoverning body meeting, discussion on membership fee receivable, Budget of FOIR for the financial year 2020-21, resolutions in respect of approval of the Balance sheet and Income & expenditure Account and other accounts related matters, The constitution of the proposed Governing Body for FY 2020-21 was also approved by the GB.

In the meeting, the Governing body has decided in accordance with Rule 5 to send a final letter giving them 1 month of time to two FOIR member organizations namely WDRA and KSERC which have not paid the membership fee for the more than two Financial Year.

On request of Tripura Electricity Regulatory Commission (TERC) that during the period 2017-18 & 2018-19 there was no Chairperson in TERC. Therefore, they are requesting that the membership fees paid by them for FY 2017-18 and FY 2018-2019 be adjusted against the fees payable for the FY 19-20 & FY 20-21. TERC also requested for considering the consumer strength in the State of Tripura for reducing their membership fees. The GB members agreed to fix the membership fees from this financial year as per the proposal i.e. at Rs. 50,000/- for North Eastern States and Rs. 1 lakh for all other members. The GB also decided that those members, who have already paid the membership fees for the current FY as per old rates, would be refunded the excess amount. This proposal would also be reviewed in the next GB meeting.

The GB approved the revised proposed budget based on the revised fee structure.

• For approved minutes of the meeting, <u>Click here</u>

21st Annual General Meeting of Forum of Indian Regulators (FOIR)

The 21st Annual General meeting of FOIR was held on 10th July 2021 virtually through blackboard LMS. Shri R.S. Sharma, Hon. Chairperson, Forum of Indian Regulators (FOIR) and Chairperson, Telecom Regulatory Authority of India (TRAI) chaired the 21st AGM.

The agenda of the meeting comprised of the confirmation of the minutes of the 20th Annual General Body Meeting of "FOIR" held on 21st June 2019 at New Dellhi, budget for the F.Y 2020-21, resolutions in respect of approval of the Balance sheet

and Income & expenditure Account etc., and status update on the other accounts and registrar of society related matters.

The General Body approved the proposal for restructuring of membership fee, keeping in view the availability of earmarked funds as at present and decided that the fee shall be restored back to Rs. 2 Lakh and Rs. 4 Lakh whenever significant part of the earmarked funds get utilized. The General Body also agreed that those members who have paid the membership fees for the current financial year at the old rates, would be refunded the excess amount.

The Strategic Plan for Capacity Building Programs during FY 2020-21 proposal of FOIR Centre, IICA with a budget of Rs 29.20 lakhs was approved. The proposal of FOIR Centre, IICA for conducting two batches of the certificate course on regulatory governance (each batch comprising of 50 participants) at a total budget of Rs 40 lakhs was also approved. The General Body, subject to above suggestions, also approved the budget for the 3 months and 6 months study along with the quarterly webinars and bi-monthly newsletters

Shri Shekhar Shah, Director General, National Council for Applied Economic Research, (NCAER) gave a talk on the "Ingredients of Effective Regulation in Disruptive Markets" elaborating the critical ideas emanating from market disruption and the resultant regulatory challenges in India.

The General Body was informed that in order to address the above issues, the Governing Body has proposed formation of a working group comprising of senior officials from CERC, TRAI, two Chairpersons of the State Electricity Regulatory Commissions, representative from the Central Transmission Utility, one telecom licensee and one distribution licensee. Chairperson, Gujarat ERC has already offered to be a member of the working group. The Governing Body had also recommended that the working group could co-opt experts from other organisations, such as NHAI and would submit the report within 3 months.

After discussions, the General Body concurred with the recommendations of the Governing Body as above. Chairpersons / Members of Tamil Nadu ERC, Punjab ERC, Tripura ERC and Delhi ERC also requested to be included in the working group, which was agreed to by the General Body. On the suggestion of some members to include cyber security experts in the working group, Chairperson, FOIR/TRAI clarified that such experts could be invited by the working group, if felt necessary

• For approved minutes of the meeting, <u>Click here</u>





Audited Annual Accounts 2020-21

Audited Annual accounts attached as Schedule-I

Annexures

Annexure -I Member Organizations of FOIR as on 31-03-2021

S.No.	Name of Institution & Address	Key Functionaries	Telephone	Fax/E-mail address
1.		Mr. P.K. Pujari Chairperson	23753911 (0)	23753923 chairman@cercind.gov.in
	Chanderlok Building, 36, Janpath, New Delhi-110001. Tel. No.23353503	Mr. Indu Shekhar Jha Member	23753912 (0)	23753923 <u>isjha@cercind.gov.in</u> <u>isjha.pg@gmail.com</u>
	Fax No.23753923 Website: www.cercind.gov.in	Mr. Arun Goyal	23753913 (0)	arungoyal@cercind.gov.i n
		Mr. Pravas Kumar Singh, Member	23753914 (0)	pravas@cercind.gov.in
2.	ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION D.No.11-4-660, 4th Floor Singareni Bhavan, Red Hills, Khairatabad Hyderabad-500 004 (A.P.) Tel. No.:040-23397381 / 399 / 556 Website: www.aperc.gov.in	Justice (Mr.) C.V. Nagarjuna Reddy Chairperson	040- 23397364 (0)	040-23397378 chmn@aperc.gov.in
		Mr. P. Raja Gopal Reddy Member (Fin.)	040- 23397496 (0)	memberf@aperc.gov.in
		Mr. Thakur Rama Singh Member	040- 23391973 (0)	040-23397378 membert@aperc.gov.in
3.	ARUNACHAL PRADESH STATE ELECTRICITY REGULATORY COMMISSION (APSERC) O.T. Building, 2nd Floor Niti Vihar Market T.T. Marg Itanagar-791111 (Arunachal Pradesh) Tel. No.:0360-2291642 Fax No.: 0360-2291643	Mr. Chairperson	0360- 2291640 / 0360- 2291642 (O) M	0360-2350985 (F)
	Website: <u>www.apserc.nic.in</u>	Mr. Hage Mima, Secretary	0360229164	secy-apserc-arn@gov.in

4.	ASSAM ELECTRICITY REGULATORY COMMISSION A.S.E.B. Campus. Dwarandar, G.S. Road, Sixth Mile, Guwahati – 781	Mr. Kumar Sanjay Krishna Chairperson	0361- 2330031 (0) FAX NO.: 0361- 2234432.	chairperson.aerc@gmail. com
	022 Assam EMail: <u>aerc_ghy@hotmail.c</u> om	Mr. Satyendra Nath Kalita Member (Tech.)	0361- 2334442 (0)	aerc ghy@hotmail.com
	Tel. No.:0361- 2334442 / 2334472 Website: http:/www.aerc.nic.in	Ms. Bulbuli Barthakur Member (Law)	0361- 2234471 (0)	0361-2234432 (F)
5.	BIHAR STATE ELECTRICITY REGULATORY COMMISSION Ground Floor	Mr. Shishir Sinha Chairperson	0612- 2504187 (0)	chairman@berc.co.in 0612-2504488 (Fax)
	Vidyut Bhavan-II BSEB Complex Bailey Road, Patna- 800021.	Mr. S. C. Chaurasia Member	0612- 2504281 (0)	member@berc.co.in
	(Bihar). Tel. No. : 0612-2556749 / 2505280 Website: <u>www.berc.co.in</u>	Member	0612- 2504484 (0)	member@berc.co.in
6.	CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION	Mr. Hemant Verma Chairperson	0771- 4073550(0)	0771-2445857 0771-4073553 cserc.cm.cg@nic.in
	Irrigation Colony, Shanti Nagar Raipur–492001 (Chhattisgarh)	Mr. Pramod Kumar Gupta Member	0771- 4073551(0)	0771-2445847 cserc.member.cg@nic.in
	Tel. No.:0771-4048788; Fax No.::0771-4073553; Website: <u>www.cserc.gov.in</u>	Mr. Vinod Deshmukh Member (Judicial)	0771- 4073552 (0)	
7.	DELHI ELECTRICITY REGULATORY COMMISSION Viniyamak Bhawan, C-	Justice Shabihul Hasnain 'Shastri' Chairperson	26673602 (0)	<u>chairman@derc.gov.in</u> 26682147 26673608 (Fax)
	Block, Shivalik, Near Malviya Nagar, New Delhi- 110 017. Tele: 011-	Member (Fin.)	41601642(0	
	26673610/26673605 Website: <u>www.derc.gov.in</u>	Mr. Akhilesh Kumar Ambasht Member	41080415 (O)	
8.	GUJARAT ELECTRICITY REGULATORY COMMISSION 6th Floor, GIFT ONE,	Chairperson	079- 23602011 (0)	079-23602054 chairman@gercin.org

	Road 5C, Zone 5, GIFT City, Gandhinagar - 382 355 (Gujarat) Phone:079-23602000 Fax:-079-23602054 - 055 Website: www.gercin.org Email: gerc@gercin.org	Mr. Satyendra R Pandey Member Mr. Member	079- 23602015 (0) 079- 23602013 (0)	
9.	HARYANA ELECTRICITY REGULATORY COMMISSION Bays No.33-36, Sector - 4 Panchkula -134112 (Haryana).	Mr. R.K. Pachnanda Chairperson Member	0172- 2573488 / 2572997(0)	0172-2572359 chairman.herc@nic.in
	Tel. No.:0172-2572395 Fax No.:0172-2572359	Member	2572996 (0)	
	Website: <u>www.herc.gov.in</u>	Mr. Naresh Sardana Member	0172- 2562053 (0)	0172-2572359 member1.herc@nic.in herc-chd@nic.in
10.	10. HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION Vidyut Aayog Bhawan Block No.37, SDA Complex Kasumpti Shimla – 171009 (H.P.).	Mr. Devendra Kumar Sharma Chairperson	0177- 2627262 (0)	0177-2627162 hperc@rediffmail.com
		Mr. Yashwant Singh Chogal Member		
	Tel. No.:177-2627263 / 2627907-8 Website: <u>www.hperc.org.in</u>	Mr. Bhanu Pratap Singh Member	0177- 2622175(0)	bhanupkanwar@gmail.co m
11.	JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION,	Chairperson	0651- 2330921 (0)	0651-2330924 (Fax) <u>jserc@sancharnet.in</u> <u>chairman@jserc.org</u>
	New Police Line Road Opposite to C.M. House Kanke Road Ranchi-834008	Member	0651- 2285902 (0)	
	(Jharkhand) Tel. No.:0651-2285906 Website: www. <u>iserc.org</u>	Mr. Pravas Kumar Singh Member (Law)	0651- 2285903 (0)	
12.	JOINT ELECTRICITY REGULATORY COMMISSION (JERC) FOR STATE OF GOA	Mr. M.K. Goel Chairperson	0124- 4684702 (D)	chairman.jerc@gmail.co m 0124- (F)

	& UTs Vanijya Nikunj, 2nd Floor, HSIIDC Office Complex, Udyog Vihar, Phase-V, Gurgaon–122016 (Haryana). Website: www.jercuts.gov.i n	Member	0124- 4684704 (D)	
13	JOINT ELECTRICITY REGULATORY COMMISSION (JERC) FOR Jammu Kashmir & Laddakh	Mr Lokesh Jha Chairperson	7889566251	lokeshjha55@hotmail.co m jercjkl@gmail.com
		Mr Rafi Andrabi Member Mr. Ajay Gupta Member		mohdrafiandrabi@gmail.
		Member		ajay-gup12@hotmail.com
14.	JOINT ELECTRICITY REGULATORY COMMISSION FOR MANIPUR & MIZORAM TBL Bhawan, 2nd –	(Member from Mizoram)	0389- 2333625 (0)	jerc.mm@gmail.com 0389-2336299/2335523 (Fax)
	5th Floor, E-18, Peter Street, Khatla, Aizawl, Mizoram-796001. Tel. No.:0389-23016254 (O) Fax No.:0389-2301299 / 0389-2300240 Website: <u>www.jerc.mizora</u> <u>m.gov.in</u>	Mr., Chairperson (Member from Manipur) (w.e.f. 24.01.2020 for one year)	0389- 2335524(0)	jerc.mm@gmail.com 0389-2336299/2335523 (Fax)
14.	KARNATAKA ELECTRICITY REGULATORY COMMISSION No. 16C-1, Miller Tank Bed Area,	Mr. Shambhu Dayal Meena Chairperson	080- 22268663 (0)	FAX : 080-22268678 / 22370214 kerc-ka@nic.in
	Vasantha nagar, Bengaluru-560052. Tel. No.: 080- 22268673 / 75 / 77 / 78 / 79	Mr. M.D. Ravi Member	080- 22268664 (0)	FAX : 080-22268667 / 22370214 ravi7659@gmail.com / kerc-ka@nic.in
	Website: <u>www.karnataka.g</u> <u>ov.in</u>	Mr. H.M. Manjunath Member (Legal)	080- 22268665 (0)	hmmanjunath@gmail.co m kerc-ka@nic.in FAX: 080-22268667 /

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15.	KERALA STATE ELECTRICITY REGULATORY COMMISSION K.P.F.C. Bhavanam C.V. Raman Pillai Road Vellayambalam Thiruvananthapuram- 695010 Tel. No.: 0471-2735544 Email: kserc@erckerala.org Website:www.erckerala.org	Mr. PremanDinaraj Chairperson	0471- 2735577 (0) 0471- 2735544(0)	0471-2735599 premandinaraj@gmail.co m
16.	MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION	Chairperson	0755- 2430183 (0)	0755-2430158 secretary@mperc.nic.in
	Metro Plaza, 3rd & 4th Floor, E-5, Arera Colony, Bittan Market, Bhopal – 462 016.	Mr. Mukul Dhariwal Member	0755- 2462961 (0)	0755-2430158 (Fax) mukuldhariwal@hotmail. com
	Tel. No.: 0755-2463585 / 2464643 Fax No.: 0755-2766851 Website: www.mperc.nic.in Email: secretary@mperc.nic.in	Mr. Shashi Bhushan Pathak Member (Law)	0755- 2463766 (0)	0755-2430158 shashibhushanpathak@g mail.com
17.	MAHARASHTRA ELECTRICITY REGULATORY COMMISSION World Trade Centre, Centre No. 1, 13th Floor, Cuffee Parade, Mumbai – 400 005. Tel. Nos:022-22163964 / 22163965 / 22163969 Website: www.mercindia.o rg.in	Mr. Anand B. Kulkarni Chairperson	022- 22163960 (D)	022-22163976 chairperson@merc.gov.in
		Mr. Iqbal Mazharhusain Bohari Member	022- 22163964 (0) 022- 22163966 (D)	022-22163976 imbohari@merc.gov.in
		Mr. Mukesh Khullar Member	022- 22163964 (0) 022- 22151566 (D)	022-22163976 khullarm@merc.gov.in
18.	MEGHALAYA STATE ELECTRICITY REGULATORY	Mr. P. W. Ingty, IAS Chairperson	0364- 2500069 (0)	chm.mserc-meg@nic.in

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	COMMISSION New Administrative Bldg., 1st Floor (Front Block Left Wing), Lower Lachumiere, East Khasi Hills District Shillong-793001 (Meghalaya). Website: www.mserc.gov.in	Mr. Roland Keishing Member (Legal)	0364- 2500142 / 2500144	mmserc@gmail.com
19.	NAGALAND ELECTRICITY REGULATORY COMMISSION (NERC) Old MLA Hostel Complex, Kohima-797001 (Nagaland). Website: www.nerc.org.in	Er. ImlikumzukAo Chairperson-cum- Member	0370- 2292101 (0)	nerc kohima@yahoo.com nerckohima@hotmail.co m 0370-2292104 (F)
20.	ODISHA ELECTRICITY REGULATORY COMMISSION Plot No.4, Chunokoli,	Mr. U.N. Behera Chairperson	0674- 2721030 (0)	0674-2721053 orierc@rediffmail.com orierc@gmail.com
	ShailashreeVihar, Chandrasekharpur, Bhubaneswar-751021 (Odisha) Tel. No.:0674-2721048 / 2721049 Fax No.: 0674-2721053 Website: www.orierc.org Info@orierc.org	Member	0674- 2721750 (0)	0674-2721053
		Mr. Sauri Kant Parhi Member	0674- 2721040 (0)	0674-2721053 kuniparhi@gamil.com
21.	PUNJAB STATE ELECTRICITY REGULATORY COMMISSION (PSERC)	Ms. Kusumjit Sidhu Chairperson	0172- 2611991 (0)	0172-2645163 (Fax) chairpersonpsercchd@g mail.com
	Site No.3, Sector 18-A Chandigarh Website: <u>www.pserc.in</u> E-Mail:	Ms. Anjuli Chandra Member	0172- 2613297 (0)	0172-2664758 member2psercchd@gmai l.com
	E Man.	Mr. Santokh Singh Sarna Member	0172- 2669799 (0)	0172-2664758 member1psercchd@gmai l.com sssarna19@gmail.com
22.	RAJASTHAN ELECTRICITY REGULATORY COMMISSION Vidyut Viniyamak Bhawan, (Near State Motor Garage) SahakarMarg, Jaipur-302001 (Rajasthan).	Mr. Shreemat Pandey Chairperson	0141- 2742337 (0)	0141-2742791 (Fax) rercjpr@yahoo.co.in
		Mr. Suresh Chandra Dinkar Member	0141- 2741106 (0)	0141-2741018 (Fax) rercjpr@yahoo.com
	Tel. Nos: 0141-2741181 / 2741016	Mr. Prithviraj Member	0141- 2741091 (0)	0141-2741018 (Fax)

	Website: <u>www.rerc.rajasth</u> an.gov.in			
23.	SIKKIM STATE ELECTRICITY REGULATORY COMMISSION (SSERC) P.O. Deorali Sikkim-737102 Tel. No.: Website: www.sserc.in	Mr. Nanda Ram Bhattarai Chairperson	03592- 281081 (D) 03592- 202539 (O)	03592-281044 (F) nrbhattarai5@gmail.com sikkim.serc@gmail.com
24.	TAMIL NADU ELECTRICITY REGULATORY COMMISSION 19-A, RukhmaniLakshmipathySal	Mr. M. Chandrasekar, Chairperson	044- 28411371(0)	044-28411377 chairman.tnerc@nic.in tnerc@nic.in
	ai (Marshalls Road), Egmore, Chennai – 600 008. Tel. No.: 044-28411378 / 28411379	Mr. K. Venkatasamy Member (Legal)	044- 28411373 (0)	044-24354982 tnerc@tn.nic.in
	Website: <u>www.tnerc.gov.in</u>	Dr. T. Prabhakara Rao Member	044- 28411374(D)	044-24354982
25.	TELANGANA STATE ELECTRICITY REGULATORY COMMISSION (TSERC) No.11-4-660, 5th Floor, SingareniBhawan, Red Hills,	Mr. T. Sriranga Rao Chairperson	040- 23397393 (0)	040-23397489 <u>chairman@tserc.gov.in</u> <u>srirangaraot@gmail.com</u>
	Khairatabad, Hyderabad-500004 Tel. No.: 040-23311125 Website: <u>www.tserc.gov.in</u>	M.D. Manohar Raju Member (Tech.)	040- 23397402 (0) 040- 23397398 (0)	040-23397489 membert@tserc.gov.in
		Mr. Bandaru Krishnaiah Member (Fin.)	040- 23397625 (0)	040-23397489 membmerf@tserc.gov.in
26.	REGULATORY COMMISSION, BidyutBhavan	Mr. D. Radhakrishna Chairperson	0381- 2326372 (0)	0381-2326372 terc chairman@yahoo.co m
	Buthoria, Choumuhani, Agartala–799001 (Tripura).	Mr. Jiban Krishna Sen Member (Legal)	0381- 2300137 (0)	

	Tel. No.: Website:			
27.		Mr. Raj Pratap Singh Chairperson	0522- 2720427 (0)	0522-2720423 chairman@uperc.org
	'Vidyut Niyamak Bhawan', Vibhuti Khand, Gomti Nagar, Lucknow–226010 (U.P.).	Mr. V.K. Srivastava Member (Law)	0522- 2720421 (0)	0522-2720423 vksrivastava@uperc.org
	Tel. No.:0522-2720424, Fax: 2720423 Website: www.uperc.org Email: secretary@uperc.or	Mr. Kaushal Kishore Sharma Member	0522- 2720424 (0)	kksharma@uperc.org
28.	UTTARAKHAND ELECTRICITY REGULATORY COMMISSION	Mr. Chairperson	0135- 2643755 (0)	Fax:0135- 2641314 E-mail:
	(UERC), 'VIDYUT NIYAMAK BHAWAN', Near ISBT, P.O. Majra Dehradun-248171 (Uttarakhand) Tel. No.:0135-2641115 / 2641119 Website: www.uerc.gov.in E-mail : uttaranchalerc@rediffmail .com	Mr. M.K. Jain Member (Technical)	0135- 2641133 (0)	Fax:0135-2641314 secy.uerc@gov.in
		Mr. D.P. Gairola Member (Law)	0135- 2642179 (0)	Fax:0135- 2641314 secy.uerc@gov.in
29.	WEST BENGAL ELECTRICITY REGULATORY COMMISSION Plot No. AH/5 (2nd & 4th	Mr. Sutirtha Bhattacharya Chairperson	033- 29623752 (0)	033-29623757 wberc99@gmail.com
	Floor) Premises No. MAR 16-1111 Action Area-1A, Newtown Rajarhat Kolkata-700163. (West Bengal). Website: www.wberc.net Tel. No.: :033- 29623756	Mr. Durgadas Goswami Member	033- 29623753 (0)	033-29623757 19ddg57@gmail.com
		Mr. Pulak Kumar Tewari Member	033- 29623768 (0)	033-29623757 nember.manojit1@gmail. com / mandal.manojit1@gmail. com
30.	Airports Economic Regulatory Authority of India (AERA) AERA Bldg., Administrative Complex	Mr. Balwinder Singh Bhullar Chairperson	24695033 (0) 24695034 (F)	chairperson@aera.gov.in

	Cafdaniana Airmant			
	Safdarjung Airport New Delhi – 110 003. EPABX – 011-24695044-47 FAX – 011-24695048	Mr. Sudhir Raheja Member	24695035 (0) 24695036 (F)	
		Mr. Subrata Samanta Member	24695037 (0) 24695038(F)	
31.	Competition Commission of India (CCI) 9th Floor, Office Block-1, Kidwai Nagar (East), Opposite Ring Road	Mr. Ashok Kumar Gupta Chairperson	20815001 (0) 20815021 (F)	cci-chairman@nic.in
	New Delhi – 110 023. EPABX – 91-11-24664100 FAX – 91-11-20815022	Mr. Bhagwant Singh Bishnoi Member	20815003 (0) 20815007 (F)	
		Mr. U.C. Nahta Member	20815005 (0) (F)	ucnahta@cci.gov.in
		Dr. Sangeeta Verma Member	20815002 (O) (F) 20815009 (O) 20815019 (F)	sangeeta.v@nic.in
32.	Insolvency & Bankruptcy Board of India (IBBI) 7th Floor, Mayur Bhawan	Dr. M.S. Sahoo Chairperson	23462805 (0)	chairperson@ibbi.gov.in
	Shankar Market Connaught Circus New Delhi – 110001	Dr. Navrang Saini Member		
	1.0.0 20 220002	Dr. (Ms.) Mukulita Vijayawargiya Member		
33.	Regulatory Board (PNGRB) 1st Floor, World Trade Centre Babar Road New Delhi – 110 001. FPARY – 011-23457700	Mr. D.K. Sarraf Chairperson	23709137 (0) 23709151 (F)	dk.sarraf@pngrb.gov.in
		Mr. Satpal Garg Member	23709139 (0)	

	E-mail – contact@pngrb.gov.in	Dr. S.S. Chahar Member	23709148 (0) 23709151 (F)	
		Mr. S. Rath Member	23709141(0) 23709151 (F)	
34.	Tariff Authority for Major Ports (TAMP) 4th Floor, Bhandar Bhawan	Chairperson	022- 23792001 (0)	
	M.P. Road, Mazgaon Mumbai – 400 010. EPABX – 022-23792002 FAX – 022-23757879	Mr. T.S. Balasubramanian Member (Fin.)	022- 23792012 (0)	
		Mr. Rajat Sachar Member (Eco.)		
35.	Telecom Regulatory Authority of India (TRAI) Mahanagar Doorsanchar Bhawan Jawaharlal Nehru Marg	Dr. R.S. Sharma Chairperson	23211236 (0) 23236026 (F)	cp@trai.gov.in
	(Old Minto Road) New Delhi – 110 002.	Mr. H. Pradeep Rao Member	23221159 (0)	member@trai.gov.in
36	Warehousing Development & Regulatory Authority (WDRA) NCUI Building, 4th Floor 3, Siri Institutional Area August Kranti Marg, Hauz Khas New Delhi-110016.	Mr. Chairperson	26536212 (0)	chairman.wdra@nic.in
		Member	26536214 (0)	member1.wdra@gov.in
		Member	26536213 (0)	member2.wdra@nic.in

Annexure -II Hony. Members (Former Chairpersons/Members) of FOIR as on 31-03-2021

S.no.	Name of Individual Member / Organization	Contact details
1.	Prof. S. L. Rao Former Chairperson, CERC & Hony. Member, FOIR	raosl@hotmail.com surendral.rao@gmail.com/ surendra@slrao.com
2.	Mr. S.C. Mahalick Former Chairperson, OERC & Hony. Member, FOIR	esarat chandra@yahoo.co.in
3.	Mr. V. S. Ailawadi Former Chairperson, HERC & Hony. Member, FOIR	vs.ailawadi@tatatel.co.in
4.	Mr. Justice S. Dwivedi Former, Chairperson, MPERC & Hony. Member, FOIR	
5.	Mr. G.P. Rao Former Chairperson, APERC & Hony. Member, FOIR	
6.	Mr. Justice N.N. Bhattacharya Former Chairperson, WBERC & Hony. Member, FOIR	
7.	Mr. J.L. Bajaj Former Chairperson, UPERC & Hony. Member, FOIR	jlbajaj@hotmail.com
8.	Mr. Justice D.G. Karia Former Chairperson, GERC & Hony. Member, FOIR	
9.	Mr. G.S. Rajamani Former Member, CERC & Hony. Member, FOIR	grajamani2626@gmail.com
10.	Mr. A.R. Ramanathan Former Member, CERC & Hony. Member, FOIR	

11.	Mr. E.C. Arunachalam Former Member, TNERC & Hony. Member, FOIR	
12.	Mr. D.P. Sinha Former Member, CERC & Hony. Member, FOIR	adityasinha007@hotmail.com / dps42a@hotmail.com
13.	Mr. A.K. Basu Former Chairperson, CERC & Hony. Member, FOIR	ashok.basu@gmail.com / ashok.basu@hotmail.com
14.	Mr. S.S. Gupta Former Chairperson, HPERC & Hony. Member FOIR	
15.	Mr. D.C. Sahoo Former Chairperson, OERC & Hony. Member, FOIR	dhrubacsahoo@rediffmail.com
16.	Mr. Divakar Dev Former Chairperson, UERC & Hony. Member, FOIR	divakardev@yahoo.com
17.	Mr. S.K. Misra Former Chairperson, CSERC & Hony. Member, FOIR	cgsarc@gmail.com_/ sujogyamisra@yahoo.com
18.	Mr. P.K. Mehrotra Former Chairperson, MPERC & Hony. Member, FOIR	prabhatm42@gmail.com
19.	Mr. Bhaskar Barua Former Chairperson, AERC & Hony. Member, FOIR	
20.	Mr. K. Swaminathan Former Chairperson, APERC & Hony. Member, FOIR	
21.	Mr. G. SubbaRao Former Chairperson, GERC & Hony. Member, FOIR	
22.	Mr. Raghothm Rao	

	Former Chairperson, APERC & Hony. Member, FOIR	
23.	Mr. K.S. Chaube Former Chairperson, HERC& Hony. Member, FOIR	kschaube@hotmail.com kschaube@gmail.com kschaube2002@yahoo.co.in
24.	Mr. S.C. Dhingra Former Member, UPERC& Hony. Member, FOIR	subhashdhingra@hotmail.com
25.	Mr. B.M. Oza Former Member, GERC & Hony. Member, FOIR	bmoza@hotmail.com / bmoza@yahoo.com
26.	Mr. Vinay Kohli Former Chairperson, MSERC & Hony. Member, FOIR	
27.	Mr. Bhaskar Chatterjee Former Chairperson, HERC & Hony. Member, FOIR	chatterjees827@yahoo.com
28.	Mr. R.K. Sharma Former Member, GERC & Hony. Member, FOIR	rks 10@hotmail.com
29.	Mr. Vijoy Kumar Former Chairperson, UPERC & Hony. Member, FOIR	vijoykumar1@gmail.com
30.	Mr. V.K. Sood Former Chairperson, DERC & Hony. Member, FOIR	sood.vk@rediffmail.com_/ vksood.rel@gmail.com
31.	Mr. K. Venugopal Former Member, TNER & Hony. Member, FOIR	venugopal123@gmail.com / venu_k_gopal@hotmail.com
32.	Mr. S.K. Sharma Former Member, PSERC & Hony. Member, FOIR	
33.	Mr. Basharat Ahmed Dhar Former Chairperson, J&SERC &	

	Hony. Member, FOIR	
34.	Mr. A. Balraj Former Chairperson, TNERC & Hony. Member, FOIR	jatinbalraj@yahoo.co.in
35.	Mr. B.C. Jena Former Member, OERC & Hony. Member, FOIR	
36.	Mr. S. I. Longkumar Former Chairperson-cum-Member, NERC &Hony. Member, FOIR	
37.	Mr. A.H. Jung Former Member, CERC & Hony. Member, FOIR	akbarjung@hotmail.com / shahruqjung@gmail.com
38.	Mr. S.M. Sahay Former Chairperson, BERC & Hony. Member, FOIR	
39.	Mr. R.K. Sharma Former Member, JERC for Goa &UTs &Hony. Member, FOIR	rav_kr_sharma@hotmail.com
40.	Mr. Hemam Bihari Singh Former Chairperson, JERC for M&M & Hony. Member, FOIR	
41.	Mr. S.K.F. Kujur Former Chairperson, JSERC & Hony. Member, FOIR	sfkujur@gmail.com
42.	Mr. S.N. Ghosh Former Chairperson, WBERC & Hony. Member, FOIR	
43.	Dr. Man Mohan Former Member, GERC & Hony. Member, FOIR	manmohan sabharwal@yahoo.com _/ mnmhn1@gmail.com
44.	Mr. V.P. Raja Former Chairperson, MERC & Hony. Member, FOIR	

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