

PREFACE

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Planning Commission is History and Niti Aayog

B.Venkatraja

Introduction

When India was declared as an independent and sovereign nation in 1947, the country was faced with the challenge of nation building. Long period of oppressive foreign rule had depleted the rich stock of natural resources and rendered Indian economy very backward. To make the situation worse, India was liberated only after the partition of the nation, which raised the hunger level since the major food producing regions became the part of Pakistan. The first popular government of independent India under the leadership of Prime Minister Jawaharlal Nehru assumed the herculean task of charting the road map for India's development and instituted Planning Commission in 1950 to plan for development, and to assess and allocate resources. This socialistic framework of growth was the need of the hour and it gave the much needed direction to the growth plan. But since 1991, the suitability, relevance and the way it was functioning in the market led economy was deeply questioned. Based on these grounds, Independent Evaluation Office (IED) submitted a report to the Government of India to abolish the Planning Commission. Acting upon this report, the new Government at the helm scrapped this 65 year old growth model and established NITI (National Institution for Transforming India) Aayog as replacement for the Planning Commission. This comes after extensive consultation across the spectrum of stakeholders, including state governments, domain experts and relevant institutions. Aravind Panegariya, former Chief Economist of Asian Development Bank has been appointed as the first Vice Chairperson of this newly innovated institution. The present paper analyses the objectives, the composition and the growth agenda of the NITI Aayog, apart from a glance at the history of the erstwhile Planning Commission. Attempt has also been made to map up the key responsibilities it is expected to take up in the wake of several shortcomings of the Planning Commission and the possible hurdles in its way.



Planning Commission- Socialist Growth Framework

The Planning Commission was set up in March 1950 by a cabinet resolution in the pursuance of prime objective of Government of India to promote better standard of living. In doing so the Planning Commission was charged with the responsibility of making assessment of available resources of the country, to oversee the feasibility of augmenting deficient resources, formulating plans for most effective and balanced utilization of resources, determining priorities, identifying factors retarding economic development, determining the nature of machinery for securing successful implementation of plans, and apprising the progress in execution of plans. The Fabian Socialist-leaning Planning Commission (Neeraj, 2015) based on Feldman-Mahalanobis model of economic development, was the initiative of India's first Prime Minister Jawaharlal Nehru. This framework of development was emulated from the plan model of Soviet Union.

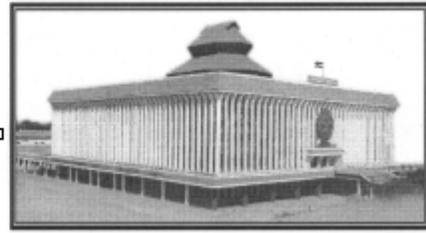
The Planning Commission was instituted against the backdrop of compelling circumstances such as lack of co-ordination between the Centre and states on development issues, integrating new states in the geo-polity of India, inflationary pressures inherited from the war and food deficiency aggravated by the partition of the nation. Hence, a top-down approach to planning was embraced, that envisaged a stronger Central Government.

Owing to the entrusted responsibility of formulating nation building plans, the Planning Commission launched the first five-year plan in 1951 with a total outlay of over Rs.2,000 crore and two subsequent plans were formulated till 1965. But as war broke out between India and Pakistan, and also due to two successive years of drought, devaluation of currency, inflation and erosion of resources disrupted the planning process and hence, the annual plans between 1966 and 1969 were launched, before the fourth five year plan was started in 1969. Again, in 1990 due to political instability at the Centre, the years 1990-91 and 1991-92 were treated as annual plans. The eighth-plan was finally launched in 1992.

The first eight plans emphasized on strongly building public sector with massive investments in basic and heavy industries, but since the launch of the ninth plan in 1997 until its formal abolition on 1st January 2015, the emphasis on the public sector has become less pronounced. The Planning Commission has commissioned 12 five year plans and six annual plans involving fund outlays of over Rs. 200 lakh crore in its 65 year history.

Dethroning Planning Commission

The Government at the Centre has hammered the last nail to the coffin of the Planning Commission on the New Year day after a series of debates and brainstorming sessions right from 2010. Why did the Government choose to scrap the once saviour of India? Over the years several issues have surfaced regarding the role, relevance and functioning of the Commission and they have hastened its abolition.



- The biggest criticism was on the composition of the Commission. It was established by a government resolution in 1950 and had no statutory or constitutional status but was handed the budgetary powers.

- The practical utility of the Planning Commission was diminishing as its work was overlapping with the specialized agencies and bodies such as Inter-state Councils, RBI, Finance Commission and National Development Council. In the real sense the Planning Commission became a budgetary liability.

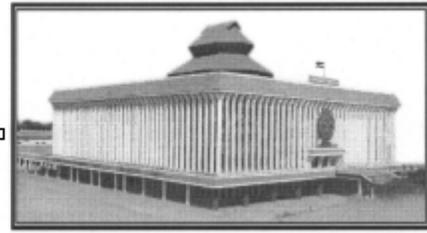
- Since 1991, with the embracing of market-led economy, the centralized planning model was highly criticised and the transition to indicative planning was the need of the hour.

- The Planning Commission was posing huge threat to the federal fabric of our constitution. The central plan body delegated strong role for the central government and fewer powers to the states, as there was no state representation in the Planning Commission. The Commission was allocating funds to states, without taking into account their concerns and priorities.

- The Planning Commission had become weaker with advisors no longer being domain experts because of a shift in their hiring pattern, which has resulted in a generic approach on important subject matters.

- Since the Commission and the Finance Ministry were practically deciding the plan with poor understanding of the various dimensions of several major issues across the country, the disconnect has widened.

Speaking on the relevance of the Planning Commission in this market led economy, Tarun Das, former senior economic advisor, Ministry of Finance, said “The Planning Commission is engaged in economy wide modelling and planningwhich is useless in the context of ongoing globalization It needs to be reorganized and reoriented “ Questioning the constitutional validity of the Planning Commission and its suitability to the contemporary economy, S.L. Rao, fellow emeritus, TERI and former chairman of CERC said,”.....A body without constitutional validity tried to decide directions and content for the economy in every state. Every plan failed in achieving targets. The Planning Commission served to give employment to economists, statisticians, and bureaucrats awaiting suitable postings. We do not need it.” Contrary to these views, taking stance in support of the Planning Commission, Pranab Sen, Chairman of the National Statistical Commission opined, “.....the Prime Minister should work more closely with the Planning Commission The idea of scrapping the Planning Commission should not be pursued.” Suggesting for a new body for long term economic thinking, Ajay Chibber, Director General, Independent Evaluation Office, said, “the task of long term economic thinking coordination can be performed by a new body established to act solely as a think tank within the government.... Which should



have full time representation of major trade and industry organisations, civil society representatives, academics etc. so as to capture their concerns and benefit from their expertise in formulating long term strategy.” In the words of Praveen Jha, Professor of Economics, Jawaharlal Nehru University “It is facing existential crisis.” Connoting the same, D. Shyam Babu, senior fellow with the Centre for Policy Research, New Delhi, “It is past its prime and relevance.” However, P.P.Sangal, former director of CSO was not in favour of dumping the Planning Commission, instead he called for its revamp.

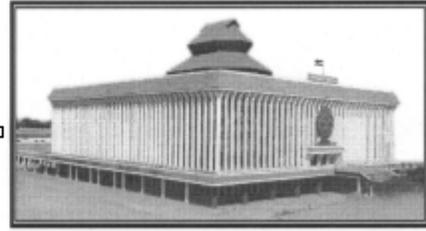
NITI Aayog- A New Framework for Transforming Indian Economic Growth

Owing to the scathing criticisms across the nation, and also based on the report of Independent Evaluation Office (IEO) which stated, “since the Planning Commission has defied attempts to reform it, to bring it in line with the needs of a modern economy and the trend of empowering states, it is proposed that the Planning Commission be abolished”, the central government abolished the Planning Commission and established National Institution for Transforming India (NITI Aayog) as replacement.

Objectives

The NITI Aayog will aim to accomplish the following objectives and opportunities (source: PI B):

- Fostering cooperative federalism, active involvement of states.
- Formulation of plans at village level, aggregation at higher level.
- Special attention to sections at risk of not benefiting adequately from economic progress.
- Economic policy that incorporates national security interests.
- Feedback for constant innovative improvements.
- Partnership with national and international think-tanks.
- Creating a knowledge, innovation and entrepreneurial support system.
- Platform for resolution of inter-sectoral and inter-departmental issues.
- State-of-art resource center for research on good governance.
- Focus on technology upgradation and capacity building.



Composition

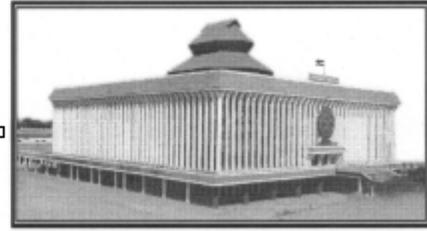
The 'think-tank' of the NITI Aayog will comprise (source: PIB):

- § **Chairperson:** The Prime Minister will head the new institution and he is its ex-officio Chairperson.
- § **Vice-Chairperson and CEO:** The Prime Minister is authorized to appoint the Aayog's Vice-Chairperson and CEO. Running the day- to-day administration of the Aayog is his prime responsibility. Asian Development Bank's former chief economist and Professor of Economics of Columbia University has been appointed as the Aayog's first Vice Chairperson and CEO.
- § **Governing Council:** Chief Ministers of all the states and Lt. Governors of Union Territories are the members of the Governing Council of the Aayog.
- § **Regional Councils:** To sort out regional issues, regional councils may be formed on need basis, comprising Chief Ministers of states/Lt. Governors of UTs of the region.
- § **Members:** The Aayog comprises of two full time members and part time members not exceeding four in number. They will be nominated by the central government for a fixed tenure. It will also include maximum four ex-officio members from Central Council of Ministers, nominated by the PM.
- § **Special Invitees:** Experts, specialists, practitioners with domain knowledge will also be inducted to this think-tank institution.
- § **Secretariat:** as deemed necessary.

Pillars of Effective Governance

The NITI Aayog is based on certain pillars of effective governance (source: PIB). They are:

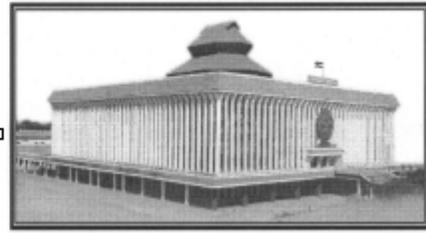
- o **Pro-people:** fulfill aspirations of society as well as individuals.
- o **Pro-activity:** pro-active in anticipation of and response to citizen needs.
- o **Participation:** involvement of citizenry.
- o **Empowering:** empowering women in all aspects.
- o **Inclusion of all:** inclusion of SC, ST, OBC, minorities, poor, villagers and farmers in growth process.
- o **Equality:** equality of opportunity for the youth.
- o **Transparency:** making government visible and responsive.



What is Special about NITI Aayog?

This new born innovative institution differs from the Planning Commission in many respects and stands out with different approach to challenges of development.

- **Co-operative Federalism:** “The center-to-state one-way flow policy, that was the hallmark of the Planning Commission era, is sought to be replaced by a genuine and continuing partnership of states”, said a press note released by PIB. The inclusion of Chief Ministers of all 29 states and Lt. Governors of 7 union territories in decision making process reposes the faith in federal consensus apart from strengthening the architecture of economic growth and development. NITI Aayog being comprised of domain experts, is expected to emerge as a think-tank that will provide governments at the central and state levels with relevant strategic and technical advice across the spectrum of key elements of policy.
- **Minimum Government Intervention:** Unlike the Planning Commission, in the new model, the role of the government as a player in the industrial and services sectors is proposed to be reduced. The government will focus on enabling legislation, policy making and regulation. Hence, the government will be merely an “enabler rather than provider of first and last resort”.
- **Reform Booster:** There is an urgent necessity to take economic reforms to the next level to seal off higher growth. Since the Planning Commission was appearing to be unsuitable plan model in the reform era due to its socialistic fabric, the NITI Aayog seeks to be a better planning mechanism of balanced long-term macroeconomic growth in the market driven globalized world. By allowing the market forces to play out, the exaggerated business cycle can be best avoided.
- **Policy Maker, Not Resource Allocator:** Amidst the absence of clear information, NITI Aayog is likely to focus more on making policy and ironing out inexplicable anomalies that have made India such a difficult place to do business in, rather than transferring funds to states, with the Finance Commission calling the shots with regard to the latter. It is most likely that the practice of drawing up voluminous five year plans will be discontinued. Their targets and projections are often rendered irrelevant in the reform era.



What should be the Focus of NITI Aayog?

Infuse Governance: Even after 65 ‘planned’ years, the macroeconomic fabric of the nation is very weak. It is widely expected that the NITI Aayog will stand up to its objectives and infuse much needed governance and align the states and union territories to its growth objectives.

Create Reliable Data Base: Appropriate policy making, accurate targeting and efficient policy implementation seeks accurate information. But unfortunately, reliable data base is not available though there are many agencies working in this area. NITI Aayog should strive towards filling up this vacuum. NITI Aayog should work in tandem with the Competition Commission, the RBI and 3P India in this regard.

Allow Finance Commission to Allocate Funds: NITI Aayog should work more as a ‘think-tank’ as it is stated, and leave resource allocation to the Finance Commission which was created by the Constitution to split resources between the centre and states. The Planning Commission even without constitutional mandate had centralized budgetary allocation and made mockery of constitutionally constituted Finance Commission. This uncharacteristic precedent should not be emulated by the NITI Aayog. Hence, the government has to draw a line to demarcate the functional areas of different organisations doing similar functions to avoid duplication and conflict as well.

Be Realistic: Abolition of the Planning Commission could also be justified on the ground of its ‘one-size-fit-all’ dogma in policy making and resource allocation. Its targets and projections were unrealistic and were unachieved in all 12 five year plans. Again, recently drawn poverty line proves that the Planning Commission was out of touch with ground realities. NITI Aayog must learn a lesson or two from the Planning Commission’s mistakes and be realistic in the process.

Adapt to New Challenges: Market-led economy poses increasing danger of depleting resources, environmental degradation and climate issue. The NITI Aayog should device road map to pull-off sustainable development in the long run. Sustainable planning strategy should focus on the microeconomics of specific sectors and implement in the macroeconomic level.

Fearing Factors

- The Vice- Chairman of NITI Aayog is directly answerable to the Prime Minister. He is neither accountable to the Chief Ministers nor the Parliament and so to the public. This increases the fear of Central government domination in national plans.
- ‘Co-operative federalism’ is a novel approach to national development. Considering the factors like history, political motivation and poor success of National Development Council, in which Chief Ministers are the ex-officio members, seeking the wholehearted participation of all states may prove to be herculean task. Federalism is commendable, but will it remain only more in spirit and less in action?



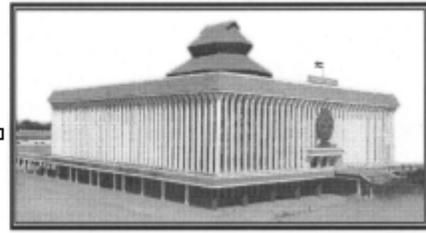
- At the outset, however, in the absence of details, the agenda of NITI Aayog appears to be more or less a repackaging of UPA's inclusive development rhetoric, which failed in effecting its objectives. NITI Aayog should research in depth to find out the real obstacles for inclusive growth and find out the strategic ways for successful implementation and execution of its plans.

Conclusion:

Despite some worrying factors, the NITI Aayog has the potential to fulfill the national aspirations. The government has critical role to play in harnessing these aspirations. The NITI Aayog should be left politically apart and independent in reality. Prof. Aravind Panegariya and his team should not be a puppet in the hands of the central government. The Aayog should be used as a framework to push forward national agenda, not political agenda. The government must implement harsh economic reforms immediately to facilitate the better outcome from the NITI Aayog. The world as a whole has very high expectations. Foreign investors look for infrastructure, business sector needs governance in administrative machinery and more liberalization and simplification, while the general public comprising of a large proportion of poor wish to have access to means for decent living. Will the NITI Aayog raise to meet to these aspirations? This is a million dollar question. Only time has to crack this mystery. Since all growth projects are to be implemented through decentralized manner, corruption and poor governance are key hurdles for the NITI Aayog at the central, state and local levels of administration. If the government does not undertake some well-designed actions seriously against those menaces on priority basis, the objectives of the NITI Aayog will not be able to realize. In such an event, though no Indian wishes, the outcome is that the NITI Aayog will be the 'old wine in new bottle'.

**KISAN WORLD,
APRIL 2015.**





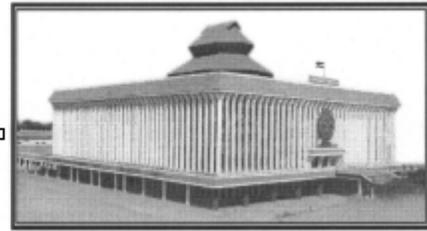
An end to power cuts

R. Ramachandran

If you happen to visit the Electrical Engineering Department at the Indian Institute of Technology Madras you will be surprised to find that the electrical appliances in the rooms of the department operate on direct current (DC), and not alternating current (AC), which is the standard the world over for power transmission and usage, both industrial and domestic. It is an innovation using solar power, which has been conceptualised and executed by two professors from the department, Ashok Jhunjhunwala and Bhaskar Ramamurthi, who is also the Director of IIT-M. This has been done in a few other departments and in some of the hostels of the institute as well.

By linking the concept of decentralised solar-based DC power to the grid-based AC power, a team of institute researchers from IIT-M, led by Jhunjhunwala and Ramamurthi, has come up with an innovative solution that has the potential to provide 24x7 access to electricity to all homes. This could be a game changer in a country where about 60-70 million homes still do not have access to electricity at all and large parts of the rest suffer daily power cuts ranging from a few hours to 10-12 hours. Those who are familiar with the work of the duo over the past decade and a half know that they are basically experts in communication engineering, and not in power engineering at all, and would seem to be somewhat unlikely people to come up with such a revolutionary solution.

And 24x7 access would seem like an unbelievable dream. During the late 1990s, the two developed the Wireless in Local Loop (WLL) technology for wider telecom access in developing countries through their corDECT solution, which is now widely deployed in India and IS other countries. In fact, at the IIT-M, Jhunjhunwala heads the Telematics and Computer Network Group (TeNet), which has nothing to do with solar power or other power engineering solutions.



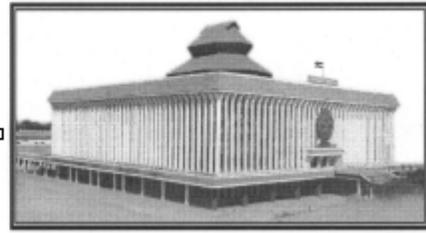
So how did they get into this? “About two years back,” Jhunjunwala said in his address at the recently held annual meeting of the Indian Academy of Sciences in Chennai, “when there were serious power cuts in Chennai, lasting anywhere from two hours to 12-14 hours, we were all getting fed up. Bhaskar and I felt that something must be done about it. So we started working on it. A colleague said solar power was the solution. We started looking at solar power to see what could be done. Solar power projects are being implemented in State after State with all kinds of subsidies. But we were amazed and aghast at how poor and inefficient the whole thing was. How nobody had applied any thought. Everything comes from outside the country; just plug it in without even applying your mind to it. Sometimes they work and sometimes they don’t.”

ENERGY EFFICIENCY

The IIT-M technology sprung from the realisation that AC supply for basic domestic and commercial power needs, rather than DC, is a highly inefficient way of using energy in the present times. Historically, AC has come to be the worldwide choice for using electricity because it allows for an increase or decrease of voltage using transformers, and this makes it possible to haul large amounts of power over long distances with cheap infrastructure and with minimum energy loss owing to thermal heating. Accordingly, most of the industrial and domestic electric appliances, such as fans, lights and water pumps, run on AC.

But, with the advent of power electronics, this basic disadvantage of DC no longer exists. More importantly, all electronic devices that one uses today, such as LED/LCD (light-emitting diode/liquid crystal display) TV, laptops, LED lamps and mobile phones/chargers, all run on low-voltage DC. But homes and offices are still powered by AC. So to use them, the AC supply is converted to DC using converters, adapters or chargers, which are often built into appliances. But the efficiency of conversion of these interfaces is poor, ranging anywhere from 25 to 50 per cent, says Jhunjunwala.

Solar power, particularly what is generated through photovoltaics (PV), produces DC power and the batteries used to store solar power also deliver only DC. With the increasing move towards decentralised solar power using rooftop PV panels, DC-based appliances, such as refrigerators, air conditioners, washing machines and fans, using brushless DC (BLDC) motors have begun to appear in the market. However, the basic electric supply grid infrastructure continues to be AC-based. Therefore, the use of DC-based appliances in grid-connected homes, even if they are augmented with rooftop solar power, becomes difficult because the load is AC-based. DC power from solar panels has to be converted to AC and synchronised with the grid and be reconverted to DC to run the connected load. So DC/AC and AC/DC conversion becomes necessary at different stages even when we use solar DC power. If we add a battery, which is usually the case as solar power fluctuates greatly, this conversion is once again required for charging and discharging the battery because the battery stores and delivers only DC.



Each conversion, according to Jhunjhunwala, causes a loss of 10-15 percent of power. So when solar power with battery is used, there is a loss of about 30-45 per cent. For example, illustrates how, in a typical situation with solar power utilisation, AC-DC conversion inefficiencies add up to result in a huge net loss of energy. Even in off-grid homes (OGH) with rooftop solar power, the problem remains the same because electronic devices such as LED lamps, laptops and mobile chargers although they run on DC are designed to be plugged into AC sockets and other grid supply inter-faces. So, at the electronic device end, there is a further loss because this AC/DC conversion is once again required.

“This must change and home-load must move towards DC if energy consumption has to be brought down,” points out Jhunjhunwala. For example, while a 72 watt AC fan at the lowest speed will consume about 60 W of power, an equivalent 30W BLDC fan consumes only 9 W. Similarly, LED lamps are twice as efficient as CFLs for a given light output. While a standard 1.2 m CFL consumes about 36 W, an equivalent LED lamp consumes only about 15W. LED lamps can be dimmed as per requirement, which further reduces power consumption. According to him, the cost of the appliances themselves will not differ too much if DC becomes the norm and the appliances are produced in large volumes. “Use of DC-powered energy-efficient devices will bring down the consumption by 50 per cent,” he adds. Solar power can be used directly to drive the DC load or to charge the battery whose DC power can then drive the load.

THE IIT-M EXPERIENCE

And this is what has basically been done within the IIT-M campus in order to demonstrate the use of solar DC electricity directly to power lights, fans and other electronic devices. The solar-powered DC electricity supply system developed by IIT - M has a rooftop PV panel, supplemented by a battery, which is designed to have 48 V +/- 3V output that feeds a local DC grid operating at that voltage. A 48 V line inside the house/building powers the DC devices and appliances. All ACHDC conversions are thus eliminated in this system. Obviously, this can be replicated in a straightforward manner in OGHs with decentralised rooftop solar power.

Two Kolkata-based scientists, Parthasarathi Majumdar of the Ramakrishna Mission Vivekananda University and Sekhar Banerjee, an independent researcher, have also been working along similar lines to use solar power to drive home appliances and devices at low voltage DC. Their particular innovation is in replacing the battery with a solar-charged super capacitor, also known as Electrochemical or Electric Double Layer Capacitors (EDLC), which are more efficient and can go through a far greater number of charge-discharge cycles than conventional batteries. Using a bank of such capacitors, they have even designed and built models of super-capacitor-driven railcar, cycle rickshaw and ferry. However, the duo is seriously constrained by lack of resources to conduct large- scale trials or widen the scope of their development. “On our part, not having access to well-equipped research laboratories confines us to making low-end prototype models,” they wrote in a recent paper describing their work.

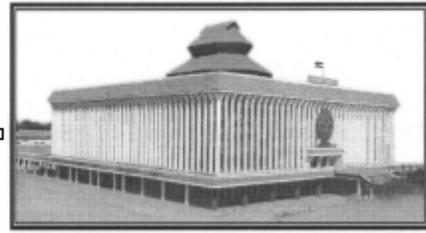


The IIT-M technology demonstrator actually goes a step further. In situations where grid supply is available, the system can supplement the grid by providing backup DC electricity from the solar-powered battery. The grid supply AC power is converted to DC at 48 volts (using an AC/DC converter) to match the solar DC and integrated with the grid. A subsystem called OGH-controller, an IIT-patented device, integrates the 48 V DC power from the PV panel, the battery and the grid (where available) in such a way that dependence on the battery is minimized. The technology, therefore, can be used both for OGH situations and for near-OGH (limited access with extended power cuts of 12-14 hours a day) situations. The OGH-controller also enables metering of the DC power consumption.

The system (Figure 2) has two output lines: a main 48 V line and an emergency output line. When the grid has long blackouts and there is no significant solar output as well because of cloudy or rainy conditions, the main line is cut off below a certain level of depth of discharge (DO D) of the battery. The emergency line, which can power a couple of devices, say a light and a fan, can be used for long hours even when the battery is low. The OGH deployment, say with a 125 W solar panel and a 200-500 watt-hours (Wh) battery, in each house will include an LED tube light, an LED bulb, one BLDC fan, one remote to operate the fan and the tube light, one socket and one mobile charger. The solution (with 100 Wh) is designed to operate a BLDC fan at full speed, the tube light and the bulb for about 10 hrs on a normal day and using up only 50 per cent of the battery power (50 per cent DO D). At reduced speed and reduced brightness of the lamps, the power can last longer. Once the battery is low, the emergency line takes over, which can last for about 24 hours.

The IIT-M has, in association with a couple of manufacturers, developed the DC lights, fans, remotes, chargers, sockets and solar panels required for the OGH solution. According to Jhunjhunwala, specifications for these, including the operating standards for these 48V DC appliances (which are being evolved), will be made public and any manufacturer will be eligible, in a tender, to supply these products.

Besides the IIT-M campus, this technology has been implemented on a pilot basis in Gudalur in the Nilgiris (20 houses), and installations are ongoing in Irakum island in Nellore, Andhra Pradesh, Dampada in Odisha, Hanskali in West. Bengal and a police station and an ayurveda hospital in Chennai. Actually, the OGH installation in Gudalur is based on a cluster homes model. In this, one OGH system is deployed in a cluster of two to four homes and the main components, which drive the cluster, are deployed in one of the houses. The biggest challenge in this deployment was installing the system in the kuccha tribal homes. The other challenge was teaching the tribal people to use a remote to operate the LED tube light.



POWER FOR ALL

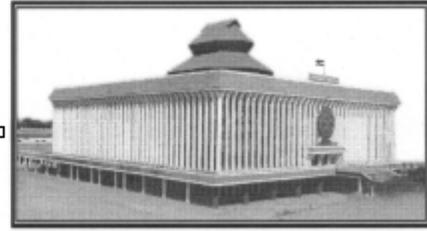
There are about 250 million houses in India. If you install a 500 W (0.5 kW) solar panel (measuring about 5 m²) in every home, with insolation (exposure to sun's rays) of about 1,500 hours a year, the total power generated will be about 190 (250 million x 0.5 kW x 1,500) GW a year, which is roughly the annual domestic power consumption. "Decentralised solar [with DC-driven appliances and devices] can thus make a huge difference. It has the potential to free the grid from all domestic demand," says Jhunjhunwala. If the above DC power system is implemented widely, it will help bring down the overall energy consumption in the country greatly. The IIT - M group hopes to extend it to cover as many as 100,000 off-grid/near-off-grid homes in different parts of the country. To be able to achieve this target, government support is necessary and the institute has offered this innovative solution to the Ministry of Power, the Ministry of New and Renewable Energy (MNRE) and the Rural Electrification Corporation (REC).

Of course, there is a cost involved to implement, run and maintain these DC systems. According to rough estimates by IIT-M, at the pilot stage (100,000 homes) of implementation, cost per home is about Rs.20,000-30,000 (including five-year maintenance) depending on the terrain, kind of houses and density. For 100,000 homes, the total cost works out to about Rs.300 crore. This, they hope, will be met through a mix of government (MNRE) subsidies routed through the institute, funding from State governments and other government bodies, private donors and corporate social responsibility (CSR) schemes.

NO MORE BLACKOUTS

Although IIT-M's OGH/near-OGH system does provide uninterrupted DC (UDC) power by providing a low-level battery backup in situations where grid connectivity exists, it does not really solve the basic problem that the two professors set out to tackle, namely getting rid of black-outs. "This also does not create a pull factor for solar power," Jhunjhunwala adds. According to him, it was a former Secretary of Power who pointed out that what they had done went only halfway. "We needed something more innovative to address the blackout issue and at the same time provide the necessary technology push for decentralised solar power and energy-efficient DC appliances."

The question that the IIT-M team asked was, instead of a mere back-up of a solar power battery at the consumer end, which at best can light up one bulb or a fan, can one do something at the grid supply or sub-station end? The idea that the IIT - M group subsequently came up with, if implemented on a large scale, can get rid of blackouts and has the potential to be a game changer in the power scenario in the country. Of course, besides technology push, a policy push is also required to achieve the cherished goal. Hopefully, appropriate policy support will also be forthcoming to enable implementation of the idea on a countrywide scale.



So what is this breakthrough idea? The grid supply as it is today functions in an either/or mode: the grid is designed to carry either full power (normal, 100 per cent) or zero power (load-shedding/blackout, 0 per cent). The IIT-M technology involves the introduction of a new low level AC power line (say at 10 per cent) and supply a minimum amount of DC power at 48 V to all homes 24x7 on the existing grid. Some tweaking at the substation will obviously be needed, which, according to Jhunjhunwala, will involve minimal changes in the grid at no great cost. This is called the “brown-out” mode.

At the substation, there will be two lines emerging from the distribution transformer, the usual 230 V line and a 90 V line. During the brown-out, only the latter would remain open. At the consumer end, the 90 V supply line is converted to a 48 V DC line by an AC/DC converter, which would then be similar to the earlier OGH situation. While the main 230 V AC line is cut off during this mode, the low power 48 V DC line remains “ON” all the time. Having two grid supply lines is not unfamiliar as most homes have separate lines for 5 amp and 15 A. This would be similar. This low-level limited power, according to the team, is small enough to be made available at all times, even in the worst power crisis situation.

What if consumers draw arbitrary amounts of power from this line resulting in a grid collapse? The main line should cut off automatically and instantaneously within a millisecond leaving the other line open, points out Jhunjhunwala. This issue of how to engineer this instantaneous cut-off bothered both Jhunjhunwala and Ramamurthi for a few months before they came up with an innovative solution.

INNOVATIVE SOLUTION

When a blackout happens, there is a rapid drop in the voltage at the substation end. So when the voltage drops from 230 V by a factor 2.5 (90V), the system should signal a brown-out and cut off the main line. Through a GPRS (General Packet Radio Service) mobile network system, the substation instantly signals to the home cluster the occurrence of the brownout. The main line is cutoff and only the 10 per cent capacity line feeding DC power remains, from which the power you can draw is limited by design. “The idea of drop in voltage to do the normal-to-brownout signaling was the Eureka moment for us,” Jhunjhunwala said. One may also ask whether 10 per cent power is sufficient for a household to function. Actually, a brownout situation is quite like the OGH case, only that the DC supply is coming from the grid itself instead of a solar panel or a storage battery. Since one is using highly energy-efficient DC devices, as in the OGH case, a good number of household appliances can be operated.

According to Jhunjhunwala, the 48 UDC line, providing 100 W power per home, can support three lights, two fans (or one fan and one LED TV) and one mobile charger. And in



case someone wants more, solar PV, with a battery support if needed, can be added. A 500 W solar PV can support five fans, three lights, two TVs, multiple mobile chargers and a laptop charger. For metering the DC consumption, an Uninterrupted DC Power Module (UDPM), which forms part of the installation, is used. It is done through a wireless system based on Bluetooth technology. Consumption data are transferred to an android mobile phone connected to the meter box via Bluetooth.

This brown-out technology has undergone extensive testing and trials at IIT-M and has also been successfully validated at Madhuranthakam near Chennai during December 2014. As many as 281 homes were covered, and this cluster in the neighborhood remains lit even when the rest of the area has extended power cuts. According to Jhunjhunwala, the neighboring areas, too, have taken an interest and would like the model replicated there. Brown-out technology installations are also ongoing in Telangana (Moinabad) Kerala (Thiruvananthapuram) and Odisha.

While large-scale deployment of the brown-out technology may not take off immediately as it involves government investment and perhaps some policy and regulatory issues, uninterrupted DC supply through the OGH/near-OGH technology, which does have a potential to bring down the electricity supply-demand gap significantly, can take off if there is requisite support from government agencies, including standardising of DC appliances and their efficiency rating by the Bureau of Energy Efficiency (BEE) and even grant of fiscal incentives to enable manufacturers to get into DC appliance production on a large scale.

**FRONTLINE,
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66A Dead. Long Live 66A!

Soni Mishra

Last Tuesday, Twitter CEO Dick Costolo walked into Prime Minister Narendra Modi's office. India's most compulsive and most-followed tweeter, Modi, as Gujarat chief minister, had protested when the Manmohan Singh government blocked the micro-blogging site of a few journalists. Modi had blacked out his own Twitter profile and tweeted: "May God give good sense to everyone."

Today, with 11 million followers on Twitter, and 27.6 million likes on Facebook, Modi rules the virtual world and India. He received Costolo warmly and told him how Twitter could help his Clean India, girl child and yoga campaigns. Impressed, Costolo told Modi how Indian youth were innovating on Twitter.

But, the greatest and the most fundamental boost for all social media in India was being effected a few minutes drive away from the PMO. Ironically, in the Supreme Court of India, Modi's lawyers were defending a law made by the United Progressive Alliance government-section 66A of the Information Technology Act, which curbed free speech on social media.

Anything posted on the internet can go viral worldwide and reach millions in no time, argued Additional Solicitor General Tushar Mehta. While the traditional media is ruled by licences and checks, social media has nothing, he said. Finally, Mehta made an impassioned plea that the government meant well. Section 66A will be administered reasonably and will not be misused, he assured the court.

It seemed he, and the government, had forgotten an old saying: if there is a bad law, someone will use it. Luckily for India, and its liberal democracy, the judges saw a bad law and struck it down. "If section 66A is otherwise invalid, it cannot be saved by an assurance from the learned additional solicitor general," said the bench comprising Justice Rohinton Nariman and Justice J. Chelameswar.



The fact is that 66A was knee-jerk legislation. Almost as thoughtless and compulsive as a netizen's derisive tweet. On December 22, 2008, the penultimate day of the winter session, the UPA government had got seven bills passed in seven minutes in the Lok Sabha; the opposition BJP had played along.

One of the bills was to amend the IT Act. It went to the Rajya Sabha the next day, when members were hurrying to catch their trains and flights home for the year-end vacation. They just okayed the bill and hurried home.

The argument then was that there was no need to discuss the bill as it had been examined by a standing committee of Parliament. Indeed, it had been. But, the committee, headed by Nikhil Kumar of the Congress, had met only for 23 hours and five minutes. Nine of its 31 members had not attended a single meeting. Ravi Shankar Prasad, the current Union minister for IT, was one among the 31.

Apparently, everyone wanted the bill, so did not bother to apply their minds. Only a CPI (M) member, A. Vijayaraghavan, had a few dissenting suggestions to the committee report. No one else bothered to mull over a law that was "unconstitutional, vague" and which would have a "chilling effect" on free speech.

Once the law was made, it was constable raj across India. Shaheen Dhada from Palghar simply commented on Facebook about a Shiv Sena bandh on the death of Bal Thackeray. Her friend Rinu Srinivasan liked it. The two teenagers were bundled into a police station. Rinu still remembers with a chill how "a mob of about 200 people gathered outside the police station that day." This was when the Congress was ruling Maharashtra.

Jadavpur University professor Ambikesh Mahapatra was picked up by the police in Trinamool Congress-ruled West Bengal in April 2012, for posting a cartoon ridiculing Chief Minister Mamata Banerjee. "I was thrashed several times in police custody," said the professor, who got relief from the West Bengal Human Rights Commission.

Vickey Khan, 22, was arrested in Rampur, UP, for a Facebook post on Samajwadi Party leader Azam Khan. Rampur is, of course, Khan's pocket borough. The Uttar Pradesh Police, controlled by the Samajwadi Party government, also arrested dalit writer Kanwal Bharti from Rampur for criticising the UP government's suspension of IAS officer Durga Shakti Nagpal in 2013.

At least 30 people in AIADMK-ruled Chennai have been booked under 66A; four of them this year. Ravi Srinivasan, general secretary of the Aam Aadmi Party in Puducherry, was picked up in October 2012 for his tweets on Karti Chidambaram, son of then Union home minister P. Chidambaram. "He was not even in India when I tweeted," said Ravi. "He sent the complaint by fax from abroad and everything happened [fast] as Puducherry is a Union Territory and can be controlled by the home ministry."



Whistleblower A. Shankar of Chennai was pulled up by the Madras High Court for the content on his blog, Savukku. The Orissa Police, controlled by the Biju Janata Dal (BJD) government, took Facebook to court in 2011 asking who created a Facebook page in the name of Chief Minister Naveen Patnaik. It is another thing that the page had no content.

Indeed, there had been stray political voices opposing the law. In Parliament, the CPI(M)'s P. Rajeeve, the BJD's Jay Panda and independent MP Rajeev Chandrasekhar pushed several times for scrapping 66A. Panda moved a private members bill, and Rajeeve moved a resolution. "I only wish we in Parliament had heeded the people's voice and repealed it, instead of yet again letting the judiciary do our work for us," Panda said after the law was scrapped.

Finally, it was left to a young law student, Shreya Singhal, to move the Supreme Court on behalf of the Palghar girls. Singhal pointed out that several provisions in 66A violated fundamental rights guaranteed by article 19(1)(a)- the right to freedom of speech and expression. Several more cases followed and, finally, the court heard them together.

Indeed, Justices Nariman and Chelameswar have been extremely restrained in their comments. But, the fact that Parliament had not applied its mind comes through in the judgment. The court "had raised serious concerns with the manner in which section 66A of the IT Act has been drafted and implemented across the country," pointed out Supreme Court lawyer Shivshankar Panicker. Added Kiran Shanmugam, a cyber forensic expert and CEO of ECD Global Bengaluru: "The law lacked foresight in estimating the magnitude of the way the electronic media would grow."

Apparently the government, too, knew it was defending the indefensible, and tried to win the case highlighting the benign nature of the democratic state. But, the court was not impressed. "Governments may come and governments may go, but section 66A goes on forever," the judges noted. "An assurance from the present government, even if carried out faithfully, would not bind any successor government."

Clearly, Mehta was defending the indefensible, a law that, the court found, would have a "chilling effect on free speech". Moreover, as the judges found out, the new law did not provide even the safeguards that the older Criminal Procedure Code had provided. "Safeguards that are to be found in sections 95 and 96 of the CrPC are also absent when it comes to section 66A," the judges said. For example, according to the CrPC, a book or document that contained objectionable matter could be seized by the police, but it also allowed the publisher to move court. The new law did not provide even such a cushion.

All the same, the court was careful and did not overturn the entire law. It scrapped section 66A, and section 118(D) of the Kerala Police Act, but upheld section 69A and section 79 of the IT Act, which too had been questioned by the litigants.



The judgment has set the cyber-world rocking. “I am so happy now, I do not know how to express it,” said Rinu, now an audio-engineering student in Kerala. Shaheen is married and lives in Bengaluru. Vicky Khan is relieved. “Some people had told me that I could be jailed for three years,” he said. But, Azam Khan took it out on the media and said it “favours criminals”. Karti, who claims to be a votary of free speech, however, wants “some protection” against defamation. “I filed a complaint in an existing provision of law,” he said. “If that provision is not available, then I will have to seek other provisions to safeguard my reputation.”

Mahapatra is still apprehensive. “The government will still try to harass me,” he said. “But I know that in the end I will win.” Shankar of Chennai called it “a huge relief for people like me, who are active on social media.” Ravi Srinivasan, who locked horns with Karti, said he felt “relieved and happy”.

The hard rap on the knuckles for their legislative laxity has sobered the political class. The Congress, the progenitor of 66A, admitted that the vagueness of the law was its undoing. “If in a particular area, the local constabulary took action to stifle dissent, it was never the purpose of the act,” said Congress spokesperson Abhishek Manu Singhvi. The Modi government officially welcomed the judgment, and its spokespersons are blaming the UPA for the law.

Apparently, the scrapped law was made after a series of grossly offensive posts appeared on the social media five years ago. “If such content is not blocked online, it would immediately lead to riots,” said a law ministry official, who said the posts had been shown to the court, too. He said the government would take some time to draft a new law.

But, is a new law required? Opinion is still divided. What if someone is defamed on the net? “There are defamation laws which can deal with these,” said T. Vishnuvardhan, programme director, Centre for Internet and Society, Bengaluru. “Also, the IT Act has various provisions. If somebody misuses your picture on social media, you can report it to the website immediately. The website is liable to take action on it within 36 hours.”

Smarika Kumar of Bengaluru-based Alternative Law Forum said the scrapping of 66A does not mean one can post anything online. “The Supreme Court has said that speech can be censored when it falls under the restrictions provided under article 19(2) of the Constitution,” she said. “But, if you prevent speech on any other ground, it is going to be unconstitutional.” But, even critics of 66A think a replacement law is needed. Said Rajeev Chandrasekhar: “The government needs to act quickly and create a much more contemporaneous Act, via multi-stakeholder consultations, general consensus and collaboration, so that there is less ambiguity and freedom of expression is preserved.”



Senior Supreme Court advocate Pravin H. Parekh said, “As the cyberworld is growing day by day and there is increase in the number of social media users, we do require a proper mechanism which can regulate the expression of views on the internet.”

The government is putting forth the argument of national security. “If the security establishment says the present act is not sufficient, we will look into it. The government will consider it, but only with adequate safeguards,” said Ravi Shankar Prasad.

That will call for a legislative process undertaken in a cool and calm house, and not hurried through when the members are ready to hurry home.

**THE WEEK,
APRIL 5, 2015.**

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സാങ്കേതിക വിദ്യാഭ്യാസ മേഖല: പ്രസക്തിയും വെല്ലുവിളികളും

ഡോ. എം. അബ്ദുൾ റഹ്മാൻ, ഡോ. രമേശ് ഉണ്ണികൃഷ്ണൻ

സാങ്കേതിക വിദ്യാഭ്യാസം - ഒരു ആമുഖം

രാജ്യത്തിന്റെ സാമൂഹിക സാമ്പത്തിക വികസനത്തിൽ നിർണായക പങ്ക് വഹിക്കുന്നത് ഇവിടുത്തെ സാങ്കേതിക വിദ്യാഭ്യാസ മേഖലയാണ്. ഇന്ത്യൻ വിദ്യാഭ്യാസ രംഗത്തെ മൊത്തത്തിൽ നോക്കിയാൽ ഏറ്റവും കൂടുതൽ സ്ഥാപനങ്ങൾ സാങ്കേതിക മേഖലയിലാണ്. രാജ്യത്ത് വിവിധ തലങ്ങളിലാണ് സാങ്കേതിക പരിശീലനം ലഭ്യമാക്കുന്നത്. വിദ്യാർത്ഥികൾ, അടിസ്ഥാന സൗകര്യങ്ങൾ, അധ്യാപകർ, പാഠ്യപദ്ധതി, പഠന പാഠ്യ സഹായികൾ, വ്യവസായ സ്ഥാപനങ്ങളുമായുള്ള ബന്ധം, സേവനങ്ങൾ, തൊഴിൽ മാർഗ്ഗനിർദ്ദേശങ്ങൾ, അംഗീകാരങ്ങൾ, ഉപദേശങ്ങൾ, ഗവേഷണം, വികസനം തുടങ്ങിയവയാണ് സാങ്കേതിക വിദ്യാഭ്യാസത്തിന്റെ അടിസ്ഥാന ഘടകങ്ങൾ. രാജ്യത്തെ സാങ്കേതിക വിദ്യാഭ്യാസ സ്ഥാപനങ്ങളുടെ ഗുണനിലവാരം വ്യവസ്ഥപ്പെടുത്തുന്നതിന് അഖിലേന്ത്യാ സാങ്കേതിക വിദ്യാഭ്യാസ കൗൺസിൽ മാനദണ്ഡങ്ങൾ ക്രോഡീകരിച്ചിട്ടുണ്ട്. രാജ്യത്തെ സാങ്കേതിക വിദ്യാഭ്യാസം പ്രോത്സാഹിപ്പിക്കുന്നതിനും അതിന്റെ ആവശ്യങ്ങൾ മുൻകൂട്ടി കാണുന്നതിനും യോജിച്ച വിധത്തിലാണ് അഖിലേന്ത്യാ സാങ്കേതിക വിദ്യാഭ്യാസ കൗൺസിൽ നിയമം ഇവിടെ നടപ്പിലാക്കിയിരിക്കുന്നത്. ഇ-ഗവേണൻസ് വഴി ഇതിന്റെ നടത്തിപ്പിന് പൂർണ്ണമായ സുതാര്യതയും മുഴുവൻ ഗുണഭോക്താക്കൾക്കും ഉത്തരവാദിത്വവും ലഭ്യമാക്കിയിട്ടുണ്ട്.

ഇന്ത്യാ ഗവൺമെന്റിന്റെ ഉന്നതവിദ്യാഭ്യാസ വകുപ്പു നൽകുന്ന സ്ഥിതിവിവരകണക്കുകൾ പ്രകാരം രാജ്യത്ത് ഏകദേശം 18000 സ്ഥാപനങ്ങൾ പ്രവർത്തിക്കുന്നുണ്ട്. അവയിൽ വിവിധ വിഷയങ്ങളിലായി ഉദ്ദേശം അഞ്ചു ലക്ഷം അധ്യാപകരും ജോലി ചെയ്യുന്നു. അതിൽ തന്നെ നിരവധി സാങ്കേതിക സ്ഥാപ



നങ്ങൾ ആഗോളതലത്തിൽ അംഗീകാരം ഉള്ളവയും ഉന്നത ഗുണനിലവാരം പുലർത്തുന്നവയുമാണ്. അതേസമയം രാജ്യത്ത് ഇന്നു പ്രവർത്തിക്കുന്ന 693 സർവകലാശാലകളിൽ ഒന്നു പോലും അന്താരാഷ്ട്ര തലത്തിൽ ആദ്യത്തെ മികച്ച 200 ന്റെ പട്ടികയിൽ വരുന്നില്ല എന്നതാണ്. എന്നാൽ ഇവിടെ ശ്രദ്ധിക്കേണ്ട മറ്റൊരു വസ്തുത, ഹോങ്കോങ്ങിൽ മൂന്നും സിങ്കപ്പൂരിൽ രണ്ടും ദക്ഷിണ കൊറിയയിൽ രണ്ടും തായ്‌വാനിൽ ഒന്നും ചൈനയിലെ ഒരു സർവകലാശാലയും ലോകത്തിലെ ഏറ്റവും മികച്ച 100 സർവകലാശാലകളുടെ പട്ടികയിൽ ഉൾപ്പെടുന്നുണ്ട്. ഇന്ത്യ പിന്തുളളപ്പട്ടതിന്റെ പ്രധാന കാരണം, നമ്മുടെ രാജ്യത്തെ ഗവേഷണ സൗകര്യങ്ങളുടെ അപര്യാപ്തതയാണ്. ഇന്ത്യയിലെ ഉന്നത വിദ്യാഭ്യാസമേഖല ആഗോള നിലവാരത്തിനടുത്തു പോലും എത്തുന്നില്ല. രാജ്യത്തെ ഉന്നതവിദ്യാഭ്യാസ സ്ഥാപനങ്ങളുടെ ഗുണനിലവാര നിർണ്ണയം കൂടുതൽ കർശനമാക്കിയിട്ടുണ്ട് എന്നൊക്കെ നമുക്ക് ന്യായീകരണങ്ങൾ ഉണ്ടാവാം. വെറുതെ ഗ്രന്ഥശാലകളും പരീക്ഷണശാലകളും നിർമ്മിച്ചു കൂട്ടിയതുകൊണ്ടു മാത്രം മികച്ച ഗവേഷണങ്ങൾ നടക്കണമെന്നില്ല. കഴിഞ്ഞ അഞ്ചു വർഷത്തെ തുടർച്ചയായ ഒൻപതു ശതമാനം വളർച്ചാനിരക്കിലൂടെ ലോകത്തിലെ ഏറ്റവും ശുഭപ്രതീക്ഷ പകരുന്ന സമ്പദ്ഘടനകളിൽ ഒന്നായി ഇന്ത്യ മുന്നേറുകയാണ്. ഇതിനു പിന്നിൽ ഇന്ത്യയിലെ ഉന്നത വിദ്യാഭ്യാസ മേഖലയാണ് ഏറ്റവും നിർണായക പങ്കു വഹിച്ചത് എന്നു പറയാതിരിക്കാനാവില്ല.

സാങ്കേതിക വിദ്യാഭ്യാസത്തിന്റെ പരിണാമം

ഇന്ത്യയിലെ ഔദ്യോഗിക സാങ്കേതിക വിദ്യാഭ്യാസത്തിന്റെ ആരംഭം 19-ാം നൂറ്റാണ്ടിലാണ്. 1902 ലെ ഇന്ത്യൻ യൂണിവേഴ്സിറ്റി കമ്മീഷന്റെ നിയമനം, 1904 ലെ ഇന്ത്യൻ വിദ്യാഭ്യാസ നയ പ്രമേയം, സാങ്കേതിക വിദ്യാഭ്യാസത്തിന്റെ പ്രാധാന്യത്തിന് ഊന്നൽ നൽകിക്കൊണ്ടുള്ള 1913 ലെ ഗവർണർ ജനലറലിന്റെ നയപ്രഖ്യാപനം, ബാംഗളൂരിൽ ഇന്ത്യൻ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് സയൻസ്, ഷുഗർ ഇൻസ്റ്റിറ്റ്യൂട്ട്, കാൺപൂരിലെ ടെക്സ്റ്റൈൽ ആൻഡ് ലെതർ ഇൻസ്റ്റിറ്റ്യൂട്ട്, 1905 ൽ ബംഗാളിൽ ദേശീയ വിദ്യാഭ്യാസ കൗൺസിൽ, വിവിധ പ്രവിശ്യകളിൽ ഇൻഡസ്ട്രിയൽ സ്കൂളുകൾ എന്നിവ സ്ഥാപിച്ചു എന്നതാണ് സ്വാതന്ത്ര്യലബ്ധിക്ക് മുമ്പ് നടന്ന പ്രധാന നയ ഇടപെടലുകൾ.

1847 ൽ റൂർക്കിയിലെ തോംസൺ എഞ്ചിനീയറിംഗ് കോളേജ് ആണ് ഇന്ത്യയിൽ ആദ്യമായി നിലവിൽ വന്ന സാങ്കേതികവിദ്യാലയം. 1856 ൽ കൽക്കത്ത കോളേജ് ഓഫ് സിവിൽ എഞ്ചിനീയറിംഗും 1858 ൽ പുന എഞ്ചിനീയറിംഗ് കോളേജും 1867 ൽ മുംബെയിൽ വിക്ടോറിയ ജൂബിലി ടെക്നിക്കൽ ഇൻസ്റ്റിറ്റ്യൂട്ടും



1908 ൽ ജാദവ്‌പൂർ എഞ്ചിനീയറിംഗ് കോളേജും നിലവിൽ വന്നു. ബാംഗ്ലൂരിലെ ഇന്ത്യൻ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് സയൻസ് 1915 ലും ബനാറസ് സർവ്വകലാശാലയിൽ എഞ്ചിനീയറിംഗ് 1917 ലും തുടക്കമിട്ടു.

കഴിഞ്ഞ 15 വർഷം മുമ്പുവരെ സാങ്കേതിക വിദ്യാഭ്യാസം പ്രത്യേകിച്ച് എഞ്ചിനീയറിംഗ് വിദ്യാഭ്യാസം സംസ്ഥാന ഉടമസ്ഥതയിലോ ഗവൺമെന്റിന്റെ ധനസഹായത്തോടെയോ, ഗവൺമെന്റ് നിയന്ത്രണത്തോടെയോ പ്രവർത്തിക്കുന്ന സ്ഥാപനങ്ങളിലായിരുന്നു. അവിടെ സീറ്റുകളും പരിമിതമായിരുന്നു. അതുകൊണ്ടു തന്നെ യഥാർത്ഥ അപേക്ഷകരുടെ കണിശമായ യോഗ്യത മാത്രം മാനദണ്ഡമാക്കിയിരുന്നു ഈ സ്ഥാപനങ്ങളിലേക്ക് പ്രവേശനം നൽകപ്പെട്ടിരുന്നത്. സാങ്കേതിക മേഖലയിൽ സംഭവിച്ച ത്വരിത വികസനത്താൽ എൻജിനീയറിംഗ് ബിരുദധാരികൾക്ക് അനേകമടങ്ങ് തൊഴിൽ സാധ്യതകൾ തുറന്നുകിട്ടിയെങ്കിലും ആവശ്യമായ ഉദ്യോഗാർത്ഥികളെ പരിശീലിപ്പിച്ച് നൽകുവാൻ ഗവൺമെന്റ് നിയന്ത്രണത്തിൽ പ്രവർത്തിച്ചിരുന്ന പരിമിതമായ എൻജിനീയറിംഗ് കോളേജുകൾക്കു സാധിച്ചില്ല. അതേ സമയം നിരവധി സംരംഭകർ ഇതിനെ സാമൂഹ്യപ്രതിബദ്ധതയുള്ള കച്ചവട അവസരമായി കാണുകയും അതിന്റെ ഫലമായി കൂണുകൾ പോലെ സ്വകാര്യ സ്വാശ്രയ എൻജിനീയറിംഗ് കോളേജുകൾ മുളച്ചു പൊന്തുകയും ചെയ്തു. 1947 ൽ രാജ്യത്ത് ഉണ്ടായിരുന്ന എഞ്ചിനീയറിംഗ് കോളേജുകൾ വെറും 47 ആയിരുന്നു. ഇവയിലെല്ലാം കൂടി 2500 വിദ്യാർത്ഥികൾക്കാണ് ഒരു വർഷം പ്രവേശനം ലഭിക്കുക. എൺപതുകളിൽ ഗവൺമെന്റ് സ്വാശ്രയാടിസ്ഥാനത്തിൽ സാങ്കേതിക വിദ്യാഭ്യാസ മേഖലയിൽ സ്വകാര്യ പങ്കാളിത്തം അനുവദിച്ചു. ഇതേ തുടർന്നാണ് കഴിഞ്ഞ 25 വർഷമായി എണ്ണമറ്റ സ്വകാര്യ സ്ഥാപനങ്ങൾ ഈ മേഖലയിൽ സ്ഥാപിക്കപ്പെട്ടുകൊണ്ടിരിക്കുന്നത്. 1980 മുതൽ ഇതുവരെ ഇന്ത്യയിൽ സ്ഥാപിതമായ സാങ്കേതിക വിദ്യാഭ്യാസ സ്ഥാപനങ്ങളുടെ സംസ്ഥാനം തിരിച്ചുള്ള കണക്കുകൾ പട്ടിക 1 ൽ കാണാം.

പട്ടിക 3 ന്

സംസ്ഥാനം	1980	1990	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
ആന്തമാൻ													
നിക്കോബാർ ദ്വീപുകൾ	0	0	0	0	0	0	0	1	1	1	1	1	1
ആന്ധ്രാ പ്രദേശ്	83	112	463	852	907	1111	1450	1672	1769	1813	1840	1697	1676

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അരുണാചൽ പ്രദേശ്	2	3	4	5	5	5	5	5	5	5	3	7	
ആസ്സാം	8	8	23	24	26	28	32	42	44	46	47	43	43
ബീഹാർ	25	29	44	53	53	55	63	71	76	82	88	74	84
ചണ്ഡീഗഢ്	3	3	10	13	13	13	14	14	14	14	14	12	12
ചത്തീസ്ഗഢ്	9	16	31	43	48	57	82	105	109	109	109	104	116
ദാമ്രനഗർ													
ഹവേലി	0	1	1	1	1	2	3	3	3	3	3	3	3
ദാമൻ ഡ്യു	0	1	1	1	1	1	1	1	1	1	1	1	1
ഡൽഹി	10	14	59	71	74	79	83	83	86	88	89	83	81
ഗോവ	2	4	11	15	15	16	16	16	16	17	18	17	17
ഗുജറാത്ത്	36	48	121	196	223	244	280	349	399	430	443	418	428
ഹരിയാന	28	34	87	141	156	213	346	410	453	491	504	471	459
ഹിമാചൽ പ്രദേശ്	8	10	13	17	21	32	42	63	72	79	80	78	78
ജമ്മു കാശ്മീർ	9	12	27	31	34	34	35	38	39	42	47	45	47
ജാർഖണ്ഡ്	15	16	32	41	41	45	49	52	57	61	61	53	59
കർണാടക	62	137	413	523	537	578	651	731	777	789	798	765	754
കേരള	30	37	106	244	250	252	263	291	315	345	358	344	354
മധ്യപ്രദേശ്	36	47	150	278	311	379	432	510	546	563	569	540	537
മണിപ്പൂർ	0	0	3	3	3	3	3	3	3	3	3	2	3
മേഘാലയ	1	1	1	3	3	4	4	5	5	5	6	6	6
മിസോറാം	0	1	2	3	3	4	4	4	4	4	4	4	3
നാഗാലാൻ്റ്	0	0	0	0	0	3	3	3	3	3	3	2	3



ഒറീസ്സ	19	25	98	134	145	164	210	277	293	299	304	287	295
പുതുച്ചേരി	5	8	15	18	18	20	23	26	30	31	32	29	32
പഞ്ചാബ്	21	25	80	178	189	209	262	343	354	386	402	381	382
രാജസ്ഥാൻ	37	46	103	174	199	232	284	335	467	484	504	468	460
സിക്കിം	0	0	4	4	4	4	4	4	4	4	4	4	4
തമിഴ്നാട്	88	160	578	784	817	900	1046	1220	1328	1382	1422	1378	1355
ത്രിപുര	4	4	5	7	7	8	8	8	9	9	9	4	8
ഉത്തർപ്രദേശ് 93		111	287	428	470	537	688	879	1039	1101	1143	1057	1067
ഉത്തരാഖണ്ഡ് 17		21	49	69	85	93	119	148	165	175	182	170	163
വെസ്റ്റ്ബംഗാൾ 37		40	111	167	178	183	201	223	238	247	258	237	247
ആകെ	794	1165	3487	5260	5696	6434	7793	9191	10185	10662	10949	10302	10322

2015 ൽ വിജ്ഞാനമേഖലയിൽ ഒരു വൻശക്തിയും 2020 ൽ വികസിത രാജ്യവും ആയിത്തീരുക എന്നതാണ് ഇന്ത്യയുടെ ലക്ഷ്യം. വിവരസാങ്കേതിക മേഖലയുൾപ്പെടെയുള്ള സേവന വിഭാഗത്തിന് മികച്ച സാങ്കേതിക പരിശീലനം ലഭിച്ച മനുഷ്യ വിഭവം ആവശ്യമുണ്ട്. അതുകൊണ്ട് സാങ്കേതിക വിദ്യാഭ്യാസമാണ് രാജ്യപുരോഗതിയുടെ ആണിക്കല്ല്. ഇന്ത്യയിൽ ഇന്ന് സാങ്കേതിക വിദ്യാഭ്യാസ രംഗത്ത് 11,000 സ്ഥാപനങ്ങളും അവയിലെല്ലാം കൂടി പന്ത്രണ്ട് ലക്ഷം ബിരുദ വിദ്യാർത്ഥികളും ഉണ്ട്. നിശ്ചിത യോഗ്യതകൾ ഇല്ലാത്ത അധ്യാപകർ, നിലവാരം കുറഞ്ഞ ക്ലാസുകൾ, മോശമായ ഹാജർനില, വിദ്യാർത്ഥികളുടെ കൂട്ടത്തോടെയുള്ള കൊഴിഞ്ഞുപോക്ക് തുടങ്ങിയവ ഈ മേഖലയെ ഇപ്പോൾ ജീർണ്ണിപ്പിക്കുകയാണ്. പഠിച്ചിറങ്ങുന്നവർ തന്നെ മത്സരക്ഷമത ഇല്ലാത്തവരാകയാൽ ആവശ്യപ്പെടുന്ന നൂതന സാങ്കേതിക പരിശീലനം സിദ്ധിച്ച ഉദ്യോഗാർത്ഥികളുടെ അഭാവത്തിൽ രാജ്യത്തെ വ്യവസായമേഖല വിട്ടുവീഴ്ചകൾക്കു തയ്യാറാകുന്നു. ഇന്നത്തെ ലോകത്തിൽ വിജയിക്കണമെങ്കിൽ തൊഴിൽ മേഖലയിൽ പ്രത്യേക വൈദഗ്ധ്യം സമ്പാദിച്ചിരിക്കണം. സങ്കീർണ്ണ ഉപകരണങ്ങളുടെ രൂപകല്പന, പ്രവർത്തനം, നിയന്ത്രണം എന്നിവയിൽ അറിവു മാത്രം പോരാ, സംഭാഷണത്തിലും, ആശയവിനിമയത്തിലും വൈദഗ്ധ്യം കൂടി തൊഴിലാളിക്ക് ഉണ്ടായിരിക്കണം.



സംസ്ഥാനത്തെ ഉന്നതവിദ്യാഭ്യാസ രംഗം

കേരളത്തിൽ ആദ്യത്തെ എൻജിനീയറിംഗ് കോളേജ് 1939 ൽ പ്രവർത്തനം ആരംഭിച്ചെങ്കിലും 1957-ൽ മാത്രമാണ് സാങ്കേതികവിദ്യാഭ്യാസ വകുപ്പ് സ്ഥാപിതമാകുന്നത്. 1939 ൽ ഒരു കോളേജും 21 സീറ്റുകളും ആയിരുന്നെങ്കിൽ 2014 ൽ ആസ്ഥാനത്ത് 161 കോളേജുകളും 63200 സീറ്റുകളുമാണ് ഉള്ളത്. വൈവിധ്യമാർന്ന ബിരുദ കോഴ്സുകളാണ് ഓരോ സ്ഥാപനങ്ങളും പരിശീലിപ്പിക്കുന്നത്. കേരളത്തിൽ സാങ്കേതിക വിദ്യാഭ്യാസ മേഖലയിലെ ഒരു കുതിച്ചു ചാട്ടമാണ് കാണുന്നത്. 2000-നു മുമ്പ് വെറും 19 സ്ഥാപനങ്ങൾ മാത്രമായിരുന്നു. അതാണ് 161 ലേയ്ക്ക് കുതിച്ചത്. സംസ്ഥാനത്ത് 99 സ്ഥാപനങ്ങളിലായി 7493 എംടെക് സീറ്റുകളും 161 എഞ്ചിനീയറിംഗ് കോളേജിലായി 63200 ബിടെക് സീറ്റുകളും 68 പോളിടെക്നിക്കുകളിലായി 19364 ഡിപ്ലോമ സീറ്റുകളും നിലവിലുണ്ട്. മാനേജ്മെന്റ് രംഗത്ത് 73 സ്ഥാപനങ്ങളിലായി 6780 എംബിഎ സീറ്റുകളും 10 സ്ഥാപനങ്ങളിൽ 1110 പിജി ഡിഎം സീറ്റുകളുമുണ്ട്. 54 എംസിഎ കോളേജുകളിലായി 3262 സീറ്റുകളും 6 ഹോട്ടൽ മാനേജ്മെന്റ് സ്ഥാപനങ്ങളിലായി 420 ബിരുദ കോഴ്സുകളും 8 ആർക്കിടെക്ചർ കോളേജുകളിലായി 464 ബി ആർക്ക് സീറ്റുകൾക്കും എഐസിടിഇ അംഗീകാരമുണ്ട്. ഫാർമസി മേഖലയിൽ 33 കോളേജുകളിലായി 3360 സീറ്റുകളും നിലവിലുണ്ട്.

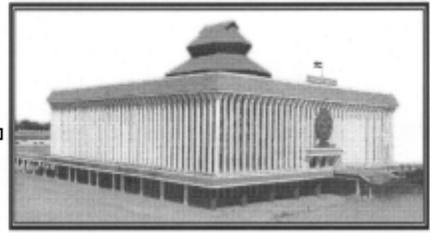
രസകരമായ മറ്റൊരു വസ്തുത സാങ്കേതിക വിദ്യാഭ്യാസമേഖലയിൽ കേരളത്തിൽ സ്വകാര്യ മുതൽമുടക്ക് 6000 കോടി രൂപയുടേതാണ് എന്നത്രെ. വാർഷിക വിനിമയം 2000 കോടിയും. കേരളത്തിലെ വിവിധ എൻജിനീയറിംഗ് കോളേജുകളെ ഗവൺമെന്റ് ഉടമസ്ഥതയിൽ ഉള്ളവ, ഗവൺമെന്റ് ധനസഹായം ഉള്ളവ, ഗവൺമെന്റിന്റെ ഉടമസ്ഥതയിലുള്ള സ്വാശ്രയ സ്ഥാപനങ്ങൾ, സർവകലാശാലയുടെ സ്വാശ്രയ സ്ഥാപനങ്ങൾ, ന്യൂനപക്ഷ ഉടമസ്ഥതയിലുള്ള സ്വാശ്രയ സ്ഥാപനങ്ങൾ, ട്രസ്റ്റ് / വ്യക്തികളുടെ ഉടമസ്ഥതയിലുള്ള സ്വാശ്രയ സ്ഥാപനങ്ങൾ എന്നിങ്ങനെ വർഗീകരിക്കാം. മുൻ വർഷങ്ങളിൽ ഗവൺമെന്റ് ഉടമസ്ഥതയിലുള്ള സ്ഥാപനങ്ങളായിരുന്നു സ്വകാര്യ കോളേജുകളേക്കാൾ കൂടുതൽ. കാരണം സാങ്കേതിക വിദ്യാഭ്യാസ വിഷയത്തിൽ അധികം സ്വകാര്യ നിയന്ത്രണം സർക്കാർ അനുവദിച്ചിരുന്നില്ല. എന്നാൽ സാങ്കേതിക വിദ്യാഭ്യാസത്തിന്റെ വർദ്ധിച്ചു വന്ന സാധ്യതമൂലം ഈ വിപണി വികസിക്കുകയും അത് അനന്തമായ ഒരു തലത്തിലേയ്ക്ക് എത്തുകയും ചെയ്തു.

ആദ്യമൊക്കെ ഉണ്ടായിരുന്ന കോളേജുകളിൽ സിവിൽ, മെക്കാനിക്കൽ, ഇലക്ട്രിക്കൽ തുടങ്ങി അടിസ്ഥാന എൻജിനീയറിംഗ് കോഴ്സുകൾ മാത്രമായിരുന്നു പരിശീലിപ്പിച്ചിരുന്നത്. എന്നാൽ സാങ്കേതിക വിദ്യയുടെ മുന്നേറ്റത്തോടെ, ഈ



കോഴ്സുകളും വൈവിധ്യവൽക്കരിക്കപ്പെട്ടു. പുതിയ ശാഖകൾ, അവയിൽ വിദഗ്ധ പരിശീലനങ്ങൾ എന്നിവയും കടന്നു വന്നു. പുതുതലമുറയിൽപ്പെട്ട മിക്ക സ്ഥാപനങ്ങളിലും ഇലക്ട്രോണിക്സ് ആൻഡ് കമ്പ്യൂണിക്കേഷൻ, കമ്പ്യൂട്ടർ സയൻസ് ആൻഡ് എൻജിനീയറിംഗ്, ഇൻഫർമേഷൻ ടെക്നോളജി തുടങ്ങിയ കോഴ്സുകളാണ് പ്രധാനമായും പഠിപ്പിക്കുന്നത്.

നമ്മുടെ ഉന്നതവിദ്യാഭ്യാസ സ്ഥാപനങ്ങളിൽ നിന്നുള്ള ബിരുദധാരികൾക്ക് മുന്തിയ വ്യവസായങ്ങളിൽ നല്ല ജോലി ലഭിക്കാൻ ആവശ്യമായ കഴിവോ അറിവോ ശേഷിയോ കാണുന്നില്ല. സംസ്ഥാനത്തെ ഉന്നത വിദ്യാഭ്യാസ മേഖലയെ പല തരത്തിലുള്ള പ്രശ്നങ്ങളും ഞെരുക്കുന്നതായി അനുഭവപ്പെടുന്നു. വിവിധ ഘടകങ്ങൾ അതിനെ പിന്നോട്ടു വലിക്കുന്നു. കേരള ഹൈക്കോടതി തന്നെ ഇത്തരം സ്ഥാപനങ്ങളിലെ നിലവാരം കുറഞ്ഞ വിദ്യാഭ്യാസ സമ്പ്രദായത്തെ കുറിച്ച് പരാമർശിക്കുകയും ഒരു വിദഗ്ധ സമിതിയെ നിയോഗിച്ച് സംസ്ഥാനത്തെ സ്വാശ്രയ എൻജിനീയറിംഗ് കോളേജുകളിൽ മിന്നൽ പരിശോധന നടത്തി അവിടെ ജോലി ചെയ്യുന്ന അധ്യാപകരുടെ യോഗ്യതയും സ്ഥാപനങ്ങളുടെ അടിസ്ഥാന സൗകര്യങ്ങളും ഉറപ്പുവരുത്തണമെന്നു നിർദ്ദേശിക്കുകയും ചെയ്യുകയുണ്ടായി. നിയുക്ത കമ്മിറ്റി സ്ഥാപനങ്ങൾ പരിശോധിക്കുകയും അവയുടെ അടിസ്ഥാന സൗകര്യങ്ങളിൽ സംതൃപ്തി രേഖപ്പെടുത്തുകയും ചെയ്തെങ്കിലും അധ്യാപക തസ്തികകൾ, വേതന വ്യവസ്ഥകൾ എന്നിവയിൽ ഞെട്ടിപ്പിക്കുന്ന വിവരങ്ങളായിരുന്നു ഗവൺമെന്റിനു നൽകിയത്. സ്ഥാപനങ്ങളിൽ ഗവേഷണ ബിരുദമുള്ള അധ്യാപകർ വളരെ വിരളമായിരുന്നു. സർക്കാർ കോളേജുകളിൽ നിന്നു വിരമിച്ച പ്രഫസർമാരായിരുന്നു മിക്ക സ്ഥാപനങ്ങളുടെയും താക്കോൽ സ്ഥാപനങ്ങളിൽ. അവർക്കൊപ്പം കുറെ പുത്തൻ എൻജിനീയറിംഗ് ബിരുദധാരികളും. ഞെട്ടിപ്പിക്കുന്ന മറ്റൊരു വസ്തുത, സംസ്ഥാനത്തെ മൊത്തം സർവകലാശാലകളിലെയും വിജയശതമാനം 50 ൽ താഴെ മാത്രമാണ് എന്നതാണ്. ഈ മോശപ്പെട്ട പ്രകടനത്തിനു കാരണം, ഭൂരിപക്ഷം വിദ്യാർത്ഥികളും എൻജിനീയറിംഗ് കോളേജുകളിൽ ചേരുന്നത് സ്വന്തം താല്പര്യപ്രകാരമല്ല, എന്നതാണ്. കഴിഞ്ഞ ഏതാനും വർഷങ്ങളായി സംസ്ഥാനത്ത് സാങ്കേതിക വിദ്യാഭ്യാസ മേഖലയിൽ നിരവധി സീറ്റുകൾ തുടക്കം മുതൽ ഒഴിഞ്ഞു കിടക്കുന്നുണ്ട്. എൻജിനീയറിംഗ് പഠനം ആദ്യമൊക്കെ സമൂഹത്തിൽ വലുതായ മാനുഷതയുള്ളതും സാമ്പത്തിക സുരക്ഷിതത്വമുള്ളതുമായിരുന്നു. അതുകൊണ്ടു തന്നെ സമർത്ഥരായ കുട്ടികൾ ആദ്യം തെരഞ്ഞെടുക്കുന്നതും അതായിരുന്നു. പഠിച്ച് പാസായാൽ നല്ല ജോലി ഉറപ്പുണ്ടായിരുന്നതുകൊണ്ട് മാതാപിതാക്കളും കുട്ടികളെ അതിനു പ്രേരിപ്പിച്ചിരുന്നു. എന്നാൽ നിലവാരം കുറഞ്ഞ സ്ഥാപനങ്ങളിൽ നിന്നു പഠിച്ചിറങ്ങി തൊഴിൽരഹിതരായി നടക്കുന്ന പുത്തൻ എൻജിനീയറിംഗ് ബിരുദധാരികൾ അത്തരം സ്ഥാപനങ്ങളുടെ



നിലവാരമില്ലായ്മയെ സമൂഹത്തിനു മുന്നിൽ ഒന്നുകൂടി വ്യക്തമാക്കിക്കൊടുക്കുന്നു. ഭൂമിശാസ്ത്രാടിസ്ഥാനത്തിലാണ് എൻജിനീയറിംഗ് കോളേജുകൾ ഇപ്പോൾ സ്ഥാപിക്കപ്പെടുന്നത്. ഗ്രാമങ്ങളിലെ കുട്ടികൾക്കും അതുമൂലം എൻജിനീയറിംഗ് പഠിക്കാൻ അവസരം ലഭിക്കുന്നുണ്ട്. പല വിദ്യാർത്ഥികൾക്കും അവരുടെ കഴിവുകൾ അനുസരിച്ച് വളരാൻ ഇത് വിഘാതമായി. കോളേജിനോടു അനുബന്ധിച്ചു തന്നെ താമസവും ഭക്ഷണവും ലഭ്യമാക്കണം എന്ന വ്യവസ്ഥ കേരളത്തിൽ ചുരുക്കം സ്ഥാപനങ്ങൾക്കു മാത്രമേ നടപ്പാക്കാൻ കഴിഞ്ഞിട്ടുള്ളൂ. സാങ്കേതിക സ്ഥാപനങ്ങളുടെ എണ്ണത്തിലുള്ള വളർച്ച, പരിശീലിക്കുന്ന വിദ്യാർത്ഥികളുടെ സംഖ്യ, തൊഴിൽ വിപണിയിലേയ്ക്കുള്ള അവരുടെ വരവ്, അവർക്കുള്ള ജോലി സാധ്യത ഇതെല്ലാം വിവിധ തലങ്ങളിൽ ചർച്ച ചെയ്യപ്പെടേണ്ടവ തന്നെ. പരിശീലനം കഴിഞ്ഞ് പുറത്തിറങ്ങുന്നവരുടെ നിലവാരം അവർക്കു ലഭിച്ച പരിശീലനത്തെയും അത് അവരെ എങ്ങനെ മാറ്റി എന്നതിനെയും ആശ്രയിച്ചാണ്. സാങ്കേതിക വിദ്യാഭ്യാസത്തിന്റെ നിലവാരം നിശ്ചയിക്കുന്നത് പ്രവേശനം നൽകുന്ന വിദ്യാർത്ഥികളുടെ നിലവാരം, പ്രതിവർഷം അവിടെ നിന്നു പഠിച്ചിറങ്ങുന്ന കുട്ടികളുടെ എണ്ണം, വാർഷിക വിജയ ശതമാനം, ജോലി ലഭിച്ചവർ, അവരുടെ വേതനം, കാമ്പസിൽ നിന്നുള്ള റിക്രൂട്ട്മെന്റ്, അധ്യാപകരുടെ നിലവാരം, പ്രസിദ്ധീകരണങ്ങൾ, ഗവേഷണങ്ങൾ, പേറ്റന്റ്, പുറത്തുനിന്നുള്ള അധ്യാപകർ, തൊഴിൽ സംഘടനകളിലെ അംഗത്വം, ഫലപ്രദമായ അധ്യാപക അധ്യയന സംവിധാനങ്ങൾ, ബാഹ്യമായ ധനസഹായങ്ങൾ, സ്വയം വിലയിരുത്തലും അംഗീകാരവും, പൂർവ്വവിദ്യാർത്ഥികളുടെ പങ്കാളിത്തം എന്നിവയാണ്.

നിലവാരം ഉയർത്തുന്നതിനുള്ള നിർദ്ദേശങ്ങൾ

സംസ്ഥാനത്തെ സാങ്കേതിക വിദ്യാഭ്യാസ മേഖലയുടെ അവസ്ഥ പരിശോധിക്കുമ്പോൾ രണ്ടു പ്രധാന പ്രതിഭാസങ്ങളാണ് കാണാൻ സാധിക്കുന്നത്. തൊഴിൽ മേഖലയിൽ വർധിക്കുന്ന ഒഴിവുകളും പഠിച്ചിറങ്ങുന്ന ബിരുദധാരികളുടെ യോഗ്യതയില്ലായ്മയുമാണ് അവ. ഇതു കുറച്ചു കൂടി ആഴത്തിൽ പഠിച്ചാൽ ഇതിന് പല കാരണങ്ങൾ കാണാനാവും. പരശ്വനാഥ് ചാരിറ്റബിൾ സൊസൈറ്റിയും അഖിലേന്ത്യാ സാങ്കേതിക വിദ്യാഭ്യാസ കൗൺസിലും തമ്മിലുള്ള കേസിൽ ഒരു അക്കദമിക് കലണ്ടർ തയ്യാറാക്കാൻ സുപ്രീം കോടതി ഉത്തരവായി. അതനുസരിച്ച് എല്ലാ സർവകലാശാലകൾക്കും കൗൺസിൽ ഈ നിർദ്ദേശം കൈമാറി. അധ്യയന ദിനങ്ങൾ പലതും വിവിധ കാരണങ്ങളാൽ അതിനു ലഭിക്കാതെ പോകുന്നുണ്ട്. വിദ്യാർത്ഥി സമരം, ഹർത്താലും പൊതുപണിമുടക്കും, പാഠ്യേതര പ്രവർത്തനങ്ങൾ, കൂടുതൽ അവധി ദിനങ്ങൾ എന്നിവ മൂലം പ്രവൃത്തി ദിനങ്ങളുടെ എണ്ണം 50 ശതമാനമായി കുറയുന്നു. ഇവ നിരീക്ഷിച്ച ശേഷം ചില നിർദ്ദേശങ്ങൾ മുന്നോട്ടു വയ്ക്കുകയാണ്. യോഗ്യതയുള്ള അധ്യാപകരെ മാത്രം നിയമിക്കുക,



ഗുണനിലവാര പരിശോധന കൃത്യമാക്കുക, കാമ്പസിൽ ഇംഗ്ലീഷ് നിർബന്ധമാക്കുക, വിദ്യാർത്ഥി കേന്ദ്രീകൃത പഠനം പ്രോത്സാഹിപ്പിക്കുക, ലോക പ്രശസ്ത സ്ഥാപനങ്ങളുമായി പഠന മേഖലയിൽ പങ്കാളിത്തം ഉറപ്പുവരുത്തുക, വ്യവസായ സ്ഥാപനങ്ങളുമായി ഫലപ്രദമായ സമ്പർക്കം സ്ഥാപിക്കുക, പാഠ്യപദ്ധതി പരിഷ്കരിക്കുക, പ്രവേശനം ഒറ്റത്തവണമാത്രമായി ക്ലിപ്തപ്പെടുത്തുക, കാമ്പസിലെ രാഷ്ട്രീയം ക്ലാസുകളെ ബാധിക്കുന്നില്ല എന്ന് ഉറപ്പാക്കുക, പരീക്ഷകൾ ഒന്നിച്ചു നടത്തി ഫലം പ്രസിദ്ധീകരിക്കുക, ഇന്റേൺഷിപ്പ് നിർബന്ധമാക്കുക എന്നിവയാണിവ.

ഉപസംഹാരം

ഇന്ത്യയിലെ ഇതര സംസ്ഥാനങ്ങൾക്കിടയിൽ സാക്ഷരത, പ്രാഥമിക വിദ്യാഭ്യാസം, സാമൂഹിക മനുഷ്യവിഭവ വികസനം തുടങ്ങിയ കാര്യങ്ങളിൽ അഹങ്കരിക്കുന്ന നാടാണ് കേരളം. വിദ്യാഭ്യാസ കാര്യത്തിൽ നമ്മുടെ പ്രകടനം വളരെ മെച്ചമാണ്. കേരള മോഡൽ എന്ന അംഗീകാരം പോലും ഇക്കാര്യത്തിൽ നേടാൻ നമുക്കു കഴിഞ്ഞു. പുതിയ തലമുറയിലുള്ള സ്ഥാപനങ്ങളുടെ പശ്ചാത്തലത്തിൽ സാങ്കേതിക വിദ്യാഭ്യാസ മേഖലയുടെ പ്രസക്തിയും വെല്ലുവിളിയും എന്ന വിഷയം കേരളത്തെ ഉദാഹരണമാക്കിയാണ് ഇവിടെ ചർച്ച ചെയ്തത്. എന്തൊരു വികസന രാജ്യത്തിന്റെയും പ്രാഥമിക ഊന്നൽ സാങ്കേതിക വിദ്യാഭ്യാസ രംഗത്തായിരിക്കും. കാരണം അതിലൂടെ മാത്രമേ ആ രാജ്യത്തിന്റെ എല്ലാ മേഖലകളുടെയും വികസന പ്രവർത്തനത്തിനു നേതൃത്വം നൽകേണ്ട എൻജിനീയർമാരെ പരിശീലിപ്പിക്കാൻ സാധിക്കുകയുള്ളൂ. അതിവേഗം ആഗോളവൽക്കരിക്കപ്പെടുന്ന ലോകത്തിൽ ഇന്ത്യയിലെ ഉന്നത വിദ്യാഭ്യാസ മേഖലയുടെ വികസനം നിർണ്ണായകമായി പരിശോധിക്കേണ്ടിയിരിക്കുന്നു. സാങ്കേതികമായി ഉന്നത വിദ്യാഭ്യാസം ലഭിച്ച, നമ്മുടെ സമ്പദ്വ്യവസ്ഥയെ മുന്നോട്ടു നയിക്കാൻ പ്രാപ്തിയുള്ള, ആളുകളുണ്ടാവണം. അങ്ങിനെയെങ്കിൽ കുറഞ്ഞ കാലത്തിനുള്ളിൽ പ്രതിഭകളെ പുറം ലോകത്തിനു നൽകാൻ നമുക്കു സാധിക്കും. വിദ്യാർത്ഥികളുടെയും അധ്യാപകരുടെയും, അടിസ്ഥാനസൗകര്യങ്ങളുടെയും, സേവനമേഖലയുടെയും നിലവാരം പരിശോധിക്കാൻ സമയം അതിക്രമിച്ചിരിക്കുന്നു. പഠിക്കുന്ന കോളേജുകൾ എന്ന നിലയിൽ നിന്ന് ഗവേഷണം നടത്തുന്ന കോളേജുകൾ എന്ന തലത്തിലേക്ക് നമ്മുടെ വിദ്യാഭ്യാസ സ്ഥാപനങ്ങൾ മാറണം. അതിനുള്ള നേതൃത്വം ഏറ്റെടുക്കേണ്ടത് സമൂഹമാണ്. വിദ്യാർത്ഥികളുടെ ശാക്തീകരണം സെക്കണ്ടറി ക്ലാസുകൾ മുതൽ ആരംഭിക്കണം. അല്ലാതെ നിലവാരം ഉയർത്തുക അസാധ്യമാണ്. ഇവിടെ ചർച്ച ചെയ്ത നിർദ്ദേശങ്ങൾ പ്രാവർത്തികമാക്കിയാൽ നമ്മുടെ സാങ്കേതിക വിദ്യാഭ്യാസ നിലവാരം ഉയരുമെന്ന് ഈ ലേഖകർ വിശ്വസിക്കുന്നു.

FOCUS



വിദ്യാഭ്യാസ സ്ഥാപനങ്ങളും - വ്യവസായസ്ഥാപനങ്ങളും തമ്മിലുള്ള ബന്ധങ്ങൾ ദൃഢമാകണം. അപ്പോൾ രാജ്യമെമ്പാടുമുള്ള മുന്തിയ വ്യവസായ സ്ഥാപനങ്ങൾ, സാങ്കേതിക യോഗ്യതയുള്ളവരെ അന്വേഷിച്ച് കേരളത്തിലേയ്ക്കു വരും.

**യോജന,
ഏപ്രിൽ 2015.**





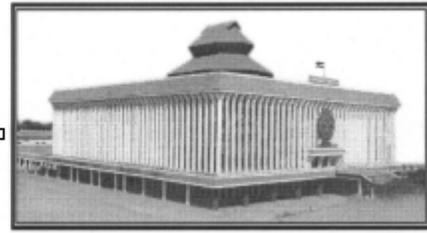
Electricity Markets, Competition, and Independent Regulation

Sunila .S. Kale

The two books under review offer a wealth of information about infrastructure in India. The chronological focus of both is the past decade and a half, a time when New Delhi and state capitals have experimented with introducing market mechanisms, private actors, and independent regulation into the country's infrastructural sectors. The book of essays edited by S L Rao covers the power sector broadly, with brief discussions on nuclear energy as well as the coal and gas sectors, but the main thrust of the volume and also the point of commonality between Rao's volume and the book co-authored by Alok Kumar and Sushanta K Chatterjee is the electricity sector.

Since this sector was overhauled in 2003 by the new Electricity Act (here-after EA03), enough time has passed to make an assessment of the new law vital, and each book offers something important towards this end. Among the most significant topics covered in the two books are regulatory bodies at the state and central levels, spot and long-term market mechanisms to allocate and price electricity, and new strategies to govern the overall health of the electricity system (like the unscheduled interchange (UI) mechanism and the renewable electricity certificate).

This review has two main goals. First I describe and discuss the analysis and arguments presented in these two books, and the policy suggestions that are offered to correct perceived weaknesses in the sector. Given the breadth of each book, I confine myself to a handful of the topics treated with the greatest depth, including competition and markets; expanding capacity and access; and independent regulation. As someone who has researched the longer history of India's electricity sector, my second goal is to point out places when a more historically informed perspective might offer an important counterpoint to debates about India's contemporary electricity sector.



Reforming Electricity

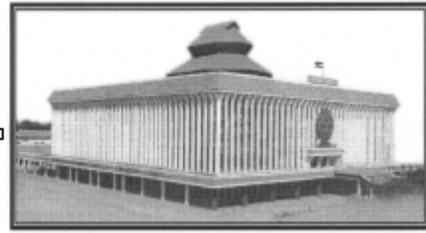
What have been the main reasons for overhauling the electricity sector in such a sweeping fashion over the last two and a half decades? The process began in the early 1990S and has continued since then, punctuated by the 2003 legislation over a decade ago that replaced the Electricity Act, 1910; Electricity (Supply) Act, 1948; and the Electricity Regulatory Commissions Act, 1998. There were several proximate problems and one deeper, underlying issue that these reforms were meant to resolve.

The most immediate problem was believed to be the financial difficulties of India's vertically integrated state electricity boards (SEBS). The standard critique of the SEBS is that their lack of solvency constrained utilities' abilities to add capacity, upgrade and maintain transmission and distribution architecture, and provide universal access to reliable electricity supplies. Furthermore, the finances of the utilities were themselves adding to the growing overall indebtedness of India's governments. The gap between supply and demand of electricity forced utilities to curb supplies to consumers (load-shedding), and after 50 years, the grid was yet to reach more than half of the population, although regional differences were stark in this regard.

In some states, particularly in the south and west, the penetration of electricity was much more extensive whereas in others, like those in the east and north, access to the grid was concentrated mostly in cities and larger towns. Even in places with nearly universal access to electricity, scarcity of supplies has meant that many categories of consumers-notably farmers-can access only a few hours of power and only during certain times of the day.

Most analyses of India's ailing electricity sector pinned the blame for SEB finances on a constellation of problems. Of these, the most commonly cited problems were free or nearly-free electricity for agricultural consumption, collusion between line staff charged with reading meters and consumers to underreport electricity usage, other means of electricity theft, and a high level of technical losses throughout the system (itself caused by systematic under investment in transmission and distribution architecture). There were additional factors that had an important bearing on SEB'S financial health but were less often mentioned in media accounts of the power sector. These were coordination problems along the "electron production chain" that included unstable, high priced, and low quality coal supplies, and high freight charges from the public sector railways.

Additionally, as the central government's investments in electricity generation through the National Thermal Power Corporation (NTPC) and National Hydro-electric Power Corporation (NHPC) expanded from the mid-1970s onwards, SEBS were purchasing more and more power from these -central utilities and often at high rates. The financial health of the SEBS and that of central public sector under-takings (PSUs), NTPC and NHPC, became inversely related; the SEBS suffered even as the central PSUs grew more successful.



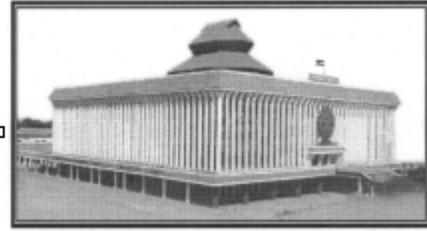
During the last two decades of electricity reforms, the government's solutions to the problem of the SEBS have focused on encouraging private sector investments to augment capacity in the sector, introducing competitive markets and open access to force utilities to function more efficiently, and installing independent regulation to take electoral and other kinds of political calculations out of the governance of the sector.

The volume edited by S L Rao has a mix of essays from individuals closely allied to organisations throughout the power sector. The volume covers some topics such as independent regulation and competition, more extensively, while other topics, like nuclear power, are covered only in brief. The mix of authors also means that the style and accessibility of the essays varies considerably.

Some of the chapters are more general in their tone and level of technical detail and will be easily understood by the specialist and non-specialist alike. For example, Rao's chapter on the regulatory framework provides an accessible over-view of independent regulation from the perspective of a former regulator. It is also more general in the sense that Rao's discussion of regulation in the electricity sector would be germane to independent regulation in other sectors of the economy. Others, like Bhushan's chapter on new power plants, are more detailed in its description and some parts of it may be demanding for the non-specialist, though the specialist will benefit greatly from the high attention to detail.

Shukla and Thampy, in a chapter on wholesale electricity markets, also treat their subject with a level of detail that may be challenging for the average reader, although the information they provide contains valuable insights about how new organisations like power exchanges are working in practice. Some chapters in the edited volume have lengthy annexes that provide extracts from various electricity policies and regulations. These will be useful especially to readers who are likely to be personally involved in the sector. Though the appendices contain many texts that can be found online through the websites of the Ministry of Power and Central Electricity Regulatory Commission, their collection within the volume is helpful to the reader.

The co-authored book by Kumar and Chatterjee has a narrower focus on the electricity sector, which allows them to treat their subject in great detail and also to guide their readers through thorny debates. They begin with an overview of the EA03 and its implementation and then go on to discuss in separate chapters the main issues confronting the electricity sector, with separate chapters on independent regulation, electricity markets, system operators, open access, financial challenges facing distribution utilities, and competition among other topics. The simultaneous breadth and depth with which the authors take up their subject matter ensures that the volume will greatly reward any scholar or policymaker connected to the sector.



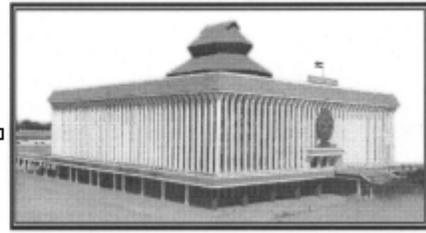
Wholesale Markets and Power Exchanges

Since Rao's edited volume includes a mix of authors, the book as a whole presents a range of perspectives on the subjects that are covered. This is perhaps most evident in the discussions of the new electricity exchanges. Shukla and Thampy in an essay titled "Analysis of Competition and Market Power in Wholesale-electricity Market in India," examine in detail places where these exchanges are failing to lower prices and indeed may be increasing prices. They also point out that these kinds of markets offer companies opportunities to benefit from windfall profits. For example, a utility might draw excess from the grid, pay the subsequent UI penalty for overdrawal, but then turn around and sell this power at a much higher rate on the power exchanges during periods of price hikes (Shukla and Thampy: 119).

By contrast, a later essay by Singh- who stepped down as the managing director of Power Exchange India Limited (PXIL), one of the two exchanges that operates in India-is extremely optimistic about the ability of these new mechanisms both to encourage greater investment and to lower tariffs. Singh is very critical of the obstacles in the way of implementing open access and more robust competitive markets, but provides no discussion of the potential drawbacks of these markets of the kind detailed by Shukla and Thampy. For a reader who might come to this debate without strongly formed opinions about the merits of markets and competition in electricity, some adjudication or explanation for these apparently contradictory stances would have been useful.

By contrast, when dealing with contentious issues, Kumar and Chatterjee present multiple perspectives on their subject before offering their own opinions and policy suggestions. In the case of wholesale markets, for example, they rehearse both sides of the debate. On the one hand, market-boosters argue that although these markets are still small, they are growing quickly and are already having an impact on prices; that market prices remain lower than diesel-based captive power; and that prices have started to fall (pp 92-93). On the other side are those who point out that Indian wholesale prices are far higher than international prices; that high market prices are worsening the problem for utilities whose customer base is made up of very poor customers who could hardly afford tariff increases; and that the experiences of Indian markets so far should give us little reason to believe that prices will come down soon (p 93).

After presenting these divergent perspectives, Kumar and Chatterjee offer a list of policy solutions that are meant to accentuate what market advocates believe to be the strengths of markets and resolve some of what critics point out as their flaws (pp 97-98). The authors argue that because the market model that India is pursuing was borrowed from places without India's scarcity problems, the model will need several modifications. In particular, they propose a much stronger regulatory oversight of markets to avoid California-style price hikes and subsequent crises; a windfall tax on companies that benefit from short-term price spikes; and possible price caps as well as floor prices so that new investors are ensured of adequate returns.



Retail Competition

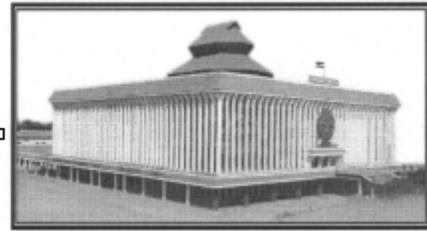
As in the discussion of wholesale markets, both books grapple with the idea that competition will have a salutary effect on the electricity - sector. In discussing the potential of competitive retail markets, there are repeated references to Mumbai, which remains one of the few places in India where multiple distribution utilities are currently operating. Without analysing the situation in Mumbai in any detail, both books gesture vaguely towards it to show the potential for competitive retail markets.

The reality in Mumbai, however, belies such optimism. Moreover, if we take a much longer historical perspective, rather than showing how competitive markets will ensure better service and lower prices for customers, which is the standard argument made by promoters of competition, the case of Mumbai can instead be seen as an example of the lengths to which utilities will go to pre-vent competition.

In introducing the subject of retail competition, Kumar and Chatterjee point out that the “concept of multiple distribution licensees existed even in the Indian Electricity Act, 1910” (Kumar and Chatterjee: 257). While this is technically true, very few parts of the country could sustain or attract more than one license during the last half-century of colonial rule when electricity was spreading through India. Bombay was one of the few cities that attracted interest from multiple utilities. Bombay Electric Supply & Tramways Company (BEST), which was then owned by a British company, first obtained a licence in 1905 to generate and distribute electricity in Bombay; another British company obtained a licence for Bombay Suburban Electric Supply (BSES) in 1926 to sell power in Bombay’s suburbs.

When Tata and Sons first applied for a licence to sell hydropower in Bombay, BEST protested - that this threatened the company’s viability and their share-holder’s profitability. At first, the Public Works Department of Bombay Presidency, which served as a regulator at the time, acceded to Tata’s request for a licence despite BEST’s protests. After BEST took their case to the Secretary of State in London, however, the Bombay government was forced to back down and tightly circumscribe the licence of Tata and Sons to create two separate, non-overlapping distribution zones. Tata and Sons would be allowed to sell electricity only to very large customers and was also required by the terms of their licence to sell power to BEST.

More than a century after that first experience, Mumbai is witnessing a parallel episode in its retail electricity supply. Once again the Tata Power Company (TPC) is eager to access a new retail base, this time the one operated by Reliance Infrastructure, which in 2002 took a controlling interest in BSES, the utility that operates in suburban Mumbai. Maharashtra’s energy regulator, Maharashtra Electricity Regulatory Commission (MERC), ruled that TPC should have the right to access distribution lines that are maintained by Reliance Power so that it can enter the retail distribution business.



As a consequence, given the differential tariffs of the two companies, from 2010 to 2012, there was a large-scale migration of customers, particularly high-tension customers, from Reliance to TPC. In 2014, Reliance Infrastructure approached the Appellate Tribunal in New Delhi to protest MERC'S handling of this case. Reliance argued that despite TPC'S 100-year-old presence in Mumbai's electricity sector, the company has never expended the capital to build its own distribution network, instead relying on the distribution network built and maintained by other utilities. The case was filed with the Appellate Tribunal in early September 2014 and has not yet been adjudicated. Since the outcome is uncertain, it is by no means clear that Mumbai will remain an example of competition in retail supply.

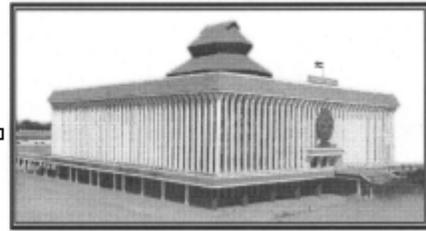
The similarities between the two episodes are striking. In both, an existing licensee wants to protect its distribution network and its customer base, fearing that the competition will "cherry-pick" its larger, more profitable customers. In both cases, after the local bodies (the Public Works Department and MERC, respectively) initially granted open access, the existing licensee approached a higher authority (the Secretary of State in London and the Appellate Tribunal in New Delhi, respectively).

Reading these two episodes together should make us far less optimistic about the notion that utilities-public sector or private-will accept competition, or that competition in retail supply will ever be more than a very marginal phenomenon in India. And if this is the case, then those who pin their hopes for improvements in India's electricity sector on retail competition will need to find different solutions to champion.

'System Operators'

As Kumar and Chatterjee argue, open access, defined as the "right to non discriminatory use of transmission and distribution networks," is the "soul" of the Electricity Act 2003 (Kumar and Chatterjee: 189). They do a nice job of describing the various coordination problems inherent in ensuring open access to India's large and complex transmission architecture (p 194). They also discuss why open access is resisted by different actors in the sector. For example, distribution utilities fear that open access will result in the loss of their most profitable consumers, which is the fear of Reliance Infrastructure in suburban Mumbai (p 199). State governments, on the other hand, fear that open access will reduce their ability to collect vital cross-subsidies (p 203).

It is the job of system operators-the National Load Dispatch Center (NLDC), the five Regional Load Dispatch Centers (RLDC), and the various State Load Dispatch Centers (SLDC)-to ensure that the electricity system functions according to carefully circumscribed technical parameters. The system operators are also charged to maintain open access. In this latter job, there have been many lapses, particularly on the part of SLDCs. For example, Kumar and Chatterjee reference an occasion when the SLOC in Delhi refused to grant open access to a



distribution utility, justifying its decision by referring to a previous statement from the power secretary that domestic demand should be prioritised above power exports outside of Delhi.

In his essay in Rao's edited volume, Upadhyaya is much more optimistic about open access; if instituted properly open access will solve the problem of insufficient capacity by making investments in power generation an attractive option. Using the economist's workhorse—the supply-demand graph—Upadhyaya shows that all else being equal, monopolies result in greater losses to society and higher profits to producers. Open access, by facilitating competition, lowers prices and increases the overall surplus to society. However, unlike Kumar and Chatterjee, Upadhyaya spends very little time talking about the very real coordination and governance challenges of an open access sector.

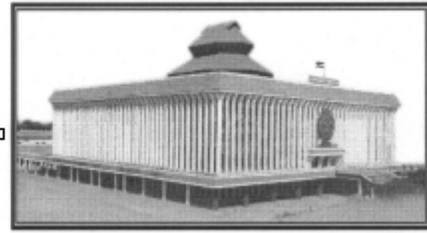
Independent Regulation

Both books spend a great deal of time on the subject of independent regulation, highlighting what it has accomplished so far and the main obstacles to more effective regulation. Rao, a former chairman of Central Electricity Regulatory Commission (CERC), somewhat pessimistically pins the reason for the creation of independent regulatory institutions on the allure of “post-retirement senior appointments” (p 25). While this may have been a motivation for some politicians and bureaucrats, India's policymaking was taking place amidst a larger global momentum in favour of independent regulation that was also surely part of the explanation for India's proliferating regulatory agencies.

The substantial problem with the ERCs is their lack of autonomy from other government agencies and their inability to enforce their mandates. These problems are faced not just by the SERCs but even by the CERC in New Delhi. For example, Rao cites an episode in which CERC was powerless to compel the central PSU, NTPC, to release adequate data (Rao: 43). There is also a great deal of variation in the functioning of state-level regulators, something that is not discussed systematically in either book but which is a subject worthy of sustained research.

Renewable Energy

For several decades now, Indian policy has tried to encourage alternatives to fossil fuel-based energy sources. Currently, the percentage of renewables in India's energy capacity is modest, although the figure is much more substantial when large hydropower is also included. The fastest growing renewable energy source currently is wind, although there are also many incentives to encourage solar power and biofuels. As Kumar and Chatterjee note, there are a host of provisions to encourage investments in renewables. For example, renewable energy is granted preferential tariffs and is charged lower transmission fees. In addition transmission utilities are required to give priority to solar and wind plants so long as doing so poses no threat to the stability of the grid.



In recent years, market solutions are being promoted in this sector, too, as a way to encourage further investments and as a way to resolve the problem that the potential for renewables is not spread evenly across India but is clustered in specific regions. Both books discuss the mechanism of Renewable Energy Certificates (RECS), which are meant to allow utilities that need to reach their minimum renewable energy component to purchase RECS from renewable generators located in another part of the country. Among the challenges of these kinds of solutions, however, are the political dynamics of Indian federalism.

Politics of Power

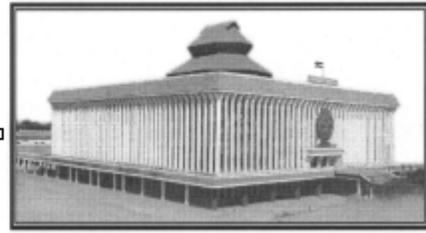
As in the case of renewables, throughout the analyses of India's electricity sector presented in these two books there are many references to how the federal division of labour complexifies governance and can produce unintended and even suboptimal outcomes from the perspective of the country as a whole. We read of many instances in which state governments and state government agencies, like the SERCs and SLDCS, act in ways meant to promote the interests of their own state's economies even if these produce less efficient outcomes from a national perspective.

For example, states with substantial natural resources, like Chhattisgarh and Odisha, require power producers to grant some quantum of electricity to the government at a discounted rate. Both books implicitly critique these kinds of attempts to advance parochial and state interests. However, when the negative externalities of human displacement, and water and air pollution are kept in mind, the idea that coal-rich states should seek additional benefits is far more sensible.

In the case of renewable energy resources, even though the REC mechanism is meant to allow renewable energy to be traded from one region to another, in some cases state governments have restricted the purchase of renewable energy to their own territories. From a state government perspective, the logic is perhaps clear: since there are substantial subsidies for developing renewable capacity, state governments are seeking ways to encourage a homegrown renewables sector. From a countrywide perspective, however, it means that geographic spread is being emphasised rather than cost effectiveness or other measures of efficiency.

Likewise, the parts of these books that deal with the implementation of open access note many instances in which states or state agencies are impeding open access and competition in the service of protecting their own domestic interests. In discussing these state-level obstacles, Upadhyaya proposes taking decision-making powers out of the purview of state governments. For example, Upadhyaya proposes that Section 11 of the EA035 be changed from "appropriate government" to "central government," ensuring that only New Delhi would be allowed to contravene the principles of open access.

The problem with this proposal and others like it, however, is that authority over electricity is constitutionally a "concurrent" subject over which state governments have long held authority along with the central government. During the 1930s and 1940s, some nationalists and planners



advocated centralising authority over the electricity sector, which they felt would be important in order to build a national grid and ensure that natural resources were equitably shared across the country. Despite these calls, however, electricity remained a concurrent subject in the Constitution, as it was in the earlier Government of India Act of 1935. Any attempt to fundamentally revisit this division of labour would require a constitutional amendment, which Rao recognises is unlikely to happen. What is more likely to occur is further centralisation of the sector; this is something that the EA03 accomplished not directly but in a “roundabout way” (Rao: 283).

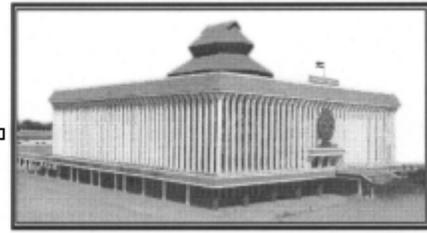
Conclusions

India’s electricity sector started with a heavy presence of the private sector in electricity supply and generation (from the 1900s to the 1950s), concentrated in cities and industrial areas. After independence, the lack of electricity in rural India was considered by the Constituent Assembly to be the chief reason that SEBS should be formed.

In opting for public sector vertically- owned utilities, India’s nationalists and planners in New Delhi looked to England (where electric power was nationalised in 1947) and the United States’s (US) Tennessee Valley Authority (which made vast progress in rural electrification throughout the American South). They also looked to state-owned electric utilities in princely Mysore and Madras Presidency, where the task of rural electrification was well underway under public ownership at the time of independence. In re-encouraging a heavy presence of private investment in the sector, policymakers should be aware of India’s electrical past and design policies and institutions to ensure that the mistakes of the colonial-era period are not repeated.

For those who are interested in understanding the longer term outcome of India’s turn towards private ownership and market solutions in the power sector, it might also be useful to look at what has happened elsewhere, where privatisation and marketisation began more than a decade earlier than in India. The case of the United Kingdom (UK) is instructive.” In the Thatcher government’s zeal to privatise, the British electricity sector was carved up into dozens of distribution zones, and private companies were invited to bid on these as well as generating utilities.

During the 1980s and 1990s, the UK’s electricity sector was transformed from having a few vertically-integrated public sector utilities to dozens of smaller, privately-owned companies, many of them non-British. Over the most recent decade, however, many of these utility segments have been reconsolidated, which has meant that competition is more limited than what was originally imagined in the UK reforms. More importantly, there has been a gradual re-nationalisation of the electricity sector, as once again many of the utility segments have returned to public ownership. This time, however, British utilities have been acquired by the public sector companies of other European countries. For example, among the largest utilities operating in the UK are Electricite



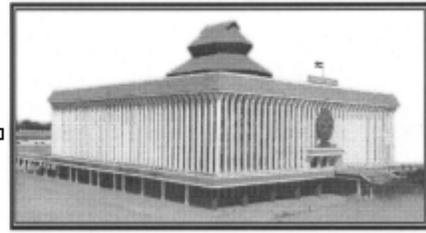
de France, the French “national champion,” and Iberdrola, a Spanish government company whose subsidiary, Scottish Power, supplies electricity in much of Scotland.

The fate of the reconstituted and re-nationalised UK sector does not constitute conclusive evidence that there is no role for private companies or competition in the electric industry. However, during the course of India’s policy experiments with private ownership and competitive markets, policymakers and analysts need to remember that the overarching goal is to provide more reliable energy access to all Indian citizens, and particularly to the roughly 400 million Indians who currently do not have access to grid power.

There are moments in these books when the authors veer too close to having a normative commitment to the market itself. A more historically and comparatively informed reading of electricity markets, however, suggests that there are important reasons to be far less sanguine about the power of competition and the role of private companies to resolve the problem of providing universal and affordable electricity access in India.

**ECONOMIC & POLITICAL WEEKLY,
APRIL 11, 2015.**





Arunachal Pradesh Legislative Assembly

RESUME OF WORK TRANSACTED FROM 5TH MARCH, 2015 TO 10TH MARCH, 2015

The Fourth Session of the Sixth Legislative Assembly of the State of Arunachal Pradesh, which commenced on 5 March 2015 and concluded on 10 March 2015.

Hon'ble Speaker announced the Panel of Chairmen for the current Session and presented the Third Report of the Business Advisory Committee. Shri Wanglin Lowangdong, Minister of Parliamentary Affairs moved a motion to adopt Third Report of the Business Advisory Committee and the motion was adopted.

Shri Tapang Taloh, Minister and Chairman presented the First Report of the Select Committee of Sixth Legislative Assembly of Arunachal Pradesh to examine The Global University Arunachal Pradesh Bill, 2015. The Global University Arunachal Pradesh (Amendment) Bill, 2015 were considered and passed by the House during this Session.

Shri Pema Khandu, Minister of Town Planning & Urban Local Body moved for leave to withdraw The Arunachal Pradesh District Planning Committee (Amendment) Bill, 2014 and withdrawn the Bill.

The following documents were laid on the Table of the House on 05.03.2015 by the Chief Minister:

1. Presentation of Supplementary Demands for the year 2014-15.
2. Presentation of Vote on Accounts for the year 2015-2016 (4 months from 1st April, 2015 to 31st July, 2015).
3. Presentation of Gender Budget for the year 2014-15 (RE)

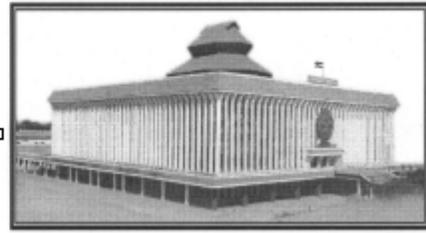


Chief Minister presented the Supplementary Demands for Grants for the year 2014-2015 on 5 March 2015, and also presented the Vote on Account for the year 2015-2016 (4 months from 1st April, 2015 to 31st July, 2015) of the Government of Arunachal Pradesh. The general discussion on the Vote on Account 2015-2016 took place on 9 March, 2015. Subsequently connected appropriation bills were introduced and considered and passed.

The question hour was maintained for 3 (Three) days i.e., on 5, 9 and 10 March 2015. Notices of 27 Starred Questions and 14 Unstarred Questions were received out of which 27 Starred Questions and 13 Unstarred Questions were admitted. All the Starred Questions were asked and answers given. Replies to all the Starred Questions and Unstarred Questions were laid on the Table. 4 nos. Notices received out of which 2 nos. were admitted 1 was not admitted and 1 was withdrawn.

The House was adjourned sine die by Hon'ble Speaker at the conclusion of its Sitting on the 10 March 2015.





MIZORAM Legislative Assembly

RESUME OF WORK TRANSACTED FROM 17TH MARCH, 2015 TO 25TH MARCH, 2015

The Business transacted during the Fifth Session of the 7th Legislative Assembly of Mizoram which commenced on the 17th March, 2015 Assembly House, Treasury Square, Aizawl.

The session commenced at 10:30 A.M on 17th March, 2015 and concluded on 25th March, 2015. The House met for 7 (seven) days covering 16 (sixteen) hours 53 (fifty three) minutes.

His Excellency, Governor of Mizoram, Dr. Aziz Qureshi addressed the House as the Session was the first Session for the year 2015.

Pi Vanlalawmpuii Chawngthu moved Motion of Thanks on the Address of the Governor and was seconded by Pu Chalrosanga Ralte. The Motion was discussed the next day and was adopted by the House unanimously.

The Hon'ble Speaker presented to the House the following Reports:-

1. Fifth Report of the Business Advisory Committee.
2. Second Report of Rules Committee relating to Constitution of Committee on Local Fund Accounts.

On the second day, Pu Lal Thanhawla, Hon'ble Chief Minister made an obituary references on the demise of the following dignitaries:

1. Pu T. Hranghluta former Member of Legislative Assembly of Mizoram.
2. Shri G. Karthikeyan, Speaker, Kerala Legislative Assembly.



Pu Vanlalzawma Opposition Group Leader also made references. Members stood in silence for 1 (one) minute as a mark of respect to the departed souls.

Pu Lalsawta, Hon'ble Finance Minister presented Supplementary Demands for Grants for the year 2014-2015, Supplementary Demand for Grants (Regularization of Excess expenditure) for the year 2010-2011 and 2011-2012 and Vote on Account 2015-2016 with allied papers. After having discussion the House passed the Supplementary Demands and Vote on Accounts.

In this Session 125 notices of Starred Questions were received and 3 were rejected. Out of these 93 were put in the List of Business for oral answers. Of these, 37 were orally answered and replies to the rest of the questions which did not reach for oral answers were sent to the Members and formed part of the proceedings of each day. 22 Unstarred Questions were received and 5 (five) were rejected. All the replies to Unstarred Questions were laid on the Table of the House.

During this session 35 Private Members' Resolutions were received and accepted. The Resolution moved by Pu T. Sangkunga was discussed on the 20th March, 2015 and adopted.

During this Session, the following Bills were received and accepted. These Bills were discussed and passed by the House respectively:

1. The Mizoram Appropriation (No-1) Bill, 2015.
2. The Mizoram Appropriation (No-2) Bill, 2015.
3. The Mizoram Appropriation (No-3) (Vote on Account) Bill, 2015.
4. The Mizoram Right to Public Services Bill, 2015.
5. The Mizoram Compulsory Registration of Marriages (Amendment) Bill, 2015.
6. The Mizoram Municipalities (Second Amendment) Bill, 2015.
7. The Mizoram Youth Commission (Amendment) Bill, 2015.

The following Committee reports were presented during this Session:

- i. Fifth Report of the Business Advisory Committee.
- ii. Second Report of Rules Committee relating to Constitution of Committee on Local Fund Accounts.



- iii. Second Report of Public Accounts Committee on the Report of CAG of India for the year 2009-2010 relating to Food, Civil Supplies & Consumer Affairs Department.
- iv. Third Report of Public Accounts Committee on the Report of CAG of India for the year 2009-2010 relating to Industries Department (Geology & Mining Wing).
- v. Fourth Report of Public Accounts Committee on the Report of CAG of India for the year 2009-2010 relating to Public Works Department.
- vi. First Report of Subject Committee-I relating to Transport Department.
- vii. Second Report of Subject Committee-I relating to Disaster Management & Rehabilitation Department.
- viii. Fifth Report of Public Accounts Committee on the Report of C&AG of India for the year 2009-2010 relating to Higher & Technical Education Department.
- ix. Sixth Report of Public Accounts Committee on the Report of C&AG of India for the year 2010-2011 relating to School Education Department.
- x. Seventh Report of Public Accounts Committee on the Report of CAG of India for the year 2010-2011 relating to Environment and Forest Department.
- xi. Eighth Report on the Report of CAG of India for the year 2010-2011 relating to Animal Husbandry & Veterinary Department.

The following papers were laid on the table of the House :

- a) Finance Accounts 2013-2014 Volume-I relating to Government of Mizoram.
- b) Finance Accounts 2013-2014 Volume-II relating to Government of Mizoram.
- c) Appropriation Accounts 2013-2014 relating to Government of Mizoram.
- d) Report of the Director of Local Fund Audit on the Accounts of Local Bodies. (Village Council within Aizawl District, Kolasib and Local Council under AMC) for the accounting year ending 31st March, 2014.
- e) Mizoram New Defined Contributory Pension (First Amendment) Scheme, 2015.
- f) 6th Annual Report 2013-2014 of Joint Electricity Regulatory Commission for Manipur and Mizoram.



- g) Annual Report 2013-2014 (1st April 2013 - 31st March, 2014) of Mizoram Information Commission.
- h) Notification published in the Gazette of India regarding JERC for the State of Manipur and Mizoram (form of Annual Statement of Accounts and Records) Rules, 2014.
- i) The Government of Mizoram (Transaction of Business) Rules, 2014 & The Government of Mizoram (Allocation of Business) Rules, 2014.
- j) A Statement of Correction on the reply given on the 23rd March, 2015 to Starred Question No. 23 Ballot No. 45 asked by Dr. K. Beichhua regarding “PWD hnuiaia lei dawh chungchang”.
- k) A Statement of Correction on the reply given on the 23rd March, 2015 to Starred Question No. 83 Ballot No. 46 asked by Pu Lalthanliana regarding “Conversion cost leh Cook honorarium chungchang”.
- l) 29th Annual Report 2013-2014 of Mizoram Khadi and Village Industries Board.
- m) A Statement of Correction on the reply given on the 23rd March, 2015 to Starred Question No. 118 Ballot No. 44 asked by Er. Lalrinawma regarding “Sainik School Chhingchhip chungchang”.

Before adjourning the House Sine Die, the Hon’ble Speaker highlighted a brief summary of the Business transacted during the Fifth Session.

The Fifth Session of the 7th Legislative Assembly adjourned sine die on 25th March, 2015. The Governor of Mizoram prorogued the House on the same day.





Tripura Legislative Assembly

RESUME OF WORK TRANSACTED FROM 21ST FEBRUARY, 2015 TO 4TH MARCH, 2015

The 7th Session of the 11th Tripura Legislative Assembly which commenced on and from 6th February with a break of 10 (ten) days from 21st February to 2nd March, 2015. As it was a Budget Session, during the break period, the 2{two} Subject Committees (I & II) scrutinised the Budget Estimates for the year 2015-2016 and the Report of the Subject Committees were placed before the House on 3rd March, 2015. The House was adjourned sine die on 4th March, 2015.

His Excellency the Hon'ble Governor of Tripura prorogued the Session of the Assembly on 28-03-2015. The House held for 10 (ten) sittings and transacted for 24 hours 45 minutes.

GOVERNOR'S ADDRESS

This being the first Session of this year, His Excellency the Governor of Tripura, Sri P. D. Acharya addressed the house at 11 A.M on (it h February, 2015 in pursuance of Article] 74 of the Constitution of India. After his departure, the House reassembled and as per instruction of the Hon'ble Speaker, myself laid a copy of the Governor's Address on the Table of the House. The House discussed the Motion of Thanks for three days 09.02.2015, 10.02.2015 & 12.02.2015 on Governor's Address and adopted it by voice vote.

OBITUARY REFERENCES

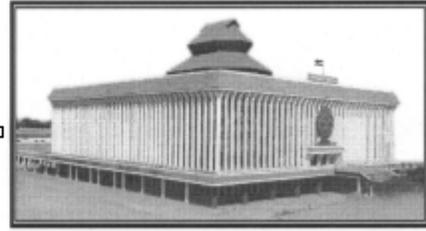
On 6th February, 10th February and 16th February, 2015, the Hon'ble Speaker made References to the passing away of Sultan Singh, Former Governor of Tripura, Buddha Deb Barma, former Member of Tripura Legislative Assembly, Anil Sarkar, Sitting Member of Tripura Legislative Assembly and silting Vice Chairman of Tripura State Planning Commission and Sudhir Das, Sitting Member of Tripura Legislative Assembly. The House paid tribute to the memory of those distinguished persons and stood in silence for two minutes as a mark of respect to the departed souls.



LAYING OF PAPERS ON THE TABLE OF THE HOUSE

During the Session period, the following Rules, Reports and Notifications etc. were laid on the Table of the House by the Ministers-in-Charge of the concerned Departments, namely:-

- i. “The Tripura State Legal Services Authority (9th Amendment) Regulations, 2014”.
- ii. “The Separate Audit Report of the Comptroller and Auditor General of India on the Accounts of Tripura State Legal Services Authority for the years ended in 31st March of 2011, 2012 and 2013”.
- iii. “The Annual Reports of the Tripura Tourism Development Corporation Limited for the years 2009-2010, 2010-2011, 2011-2012 & 2012-2013”.
- iv. “The Annual Report of the Tripura State Electricity Corporation Limited 2011-2012”.
- v. “The 33rd Annual Report of the Tripura Tea Development Corporation Limited for the Financial Year 2012-2013”.
- vi. “The Code of Criminal Procedure (Tripura Eighth Amendment) Act, 2009”.
- vii. “The Tripura State Rifles (Discipline, Control, Service Conditions etc.) (Amendment) Rules, 2010”.
- viii. “The Tripura State Rifles (Discipline, Control, Service Conditions) (Second Amendment) Rules, 2010”.
- ix. “The Tripura State Rifles (Discipline, Control, Service Conditions etc.) (Amendment) Rules, 2012”.
- x. “The Tripura State Rifles (Discipline, Control, Service Conditions etc.) (5th Amendment) Rules, 2014”.
- xi. “The Tripura State Rifles (Recruitment) (Eighth Amendment) Rules, 2010”.
- xii. “The Tripura State Rifles (Recruitment) (Ninth Amendment) Rules, 2010”.
- xiii. “The Tripura State Rifles (Recruitment) Rules Amendment Rules, 2013”.
- xiv. “The Tripura State Rifles (Recruitment) (12th Amendment) Rules, 2013”.
- xv. “The Tripura State Rifles (Recruitment] (13th Amendment) Rules, 2014”.
- xvi. “Annual Report of the Tripura Police Accountability Commission 2013”.



- xvii. “The Appropriation Accounts for the year 2013-2014”.
- xviii. “The Finance Accounts (Volume-I & II) for the year 2013-2014 relating to the State of Tripura”.
- xix. “The Quarterly Review Report of Finance Minister for the 4th Quarter of 2013-2014 and 1st, 2nd and 3rd Quarter of 2014-2015 as per Tripura FRBM Act, 2005”.
- xx. “The Annual Report of the Tripura Electricity Regulatory Commission for the year 2013-2014”.
- xxi. “Tripura Electricity Regulatory Commission (Electric Supply Code) (1st Amendment) Regulations - 2013”.
- xxii. “Tripura Electricity Regulatory Commission (Electric Supply Code) (2nd Amendment) Regulations-2014”.
- xxiii. “Flow of Fund to Municipal Corporation, Municipal Councils & Nagar Panchayats for the year 2015-2016”.
- xxiv. “The Economic Review of Tripura of the Directorate of Economics & Statistics Planning (Statistics) Department for the year 2013-14”.
- xxv. Flow of fund to Panchayati Raj Institutions & TTAADC Area Bodies 2015-2016.

LEGISLATIVE BUSINESS

During the Session, only 5 (five) Bills, as stated below, were introduced, considered and passed by the House, namely:-

- i. “The Tripura Lokayukta (Second Amendment) Bill, 2015 (The Tripura Bill No.4 of 2015)”.
- ii. “The Tripura Appropriation Bill, 2015 (The Tripura Bill No.2 of 2015)”.
- iii. “The Tripura Entertainment Tax (Amendment) Bill, 2014 (Tripura Bill No.16 of 2014)”.
- iv. “The Salaries, Allowances, Pension and other Benefits of the Ministers, Speaker, Deputy Speaker, Leader of Opposition, Government Chief Whip and the Members of Legislative Assembly (Tripura) (Third Amendment) Bill, 2015 (The Tripura Bill No.5 of 2015)”.
- v. “The Tripura Appropriation (No.2) Bill, 2015 (Tripura Bill No.3 of 2015)”.



QUESTIONS

Notices of Questions 482 Nos. of Starred, 612 Nos. of Un-starred and 2 Nos. Short Notice respectively had been received. Out of these, 210 Nos. & 698 Nos. Notices were admitted as Starred, Un-starred question and 1 No. Short Notice respectively. However, 176 Nos. Starred, 490 Nos. Unstarred questions and 1 No. Short Notice was enlisted during the Session in the list of question for answering in the House by the Ministers concerned of which only 62 (sixty two) Starred Questions were answered orally on the floor of the House. Written replies to the remaining Starred and Un-starred questions were laid on the table of the House by the concerned Ministers.

REFERENCE PERIOD

25 (twenty five) Notices on matters of urgent Public Importance had been received. Out of these, 20 (twenty) Notices were admitted and enlisted in the list of Business. The Ministers concerned made statements in the House on all of them or laid Written Statements on the Table of the House on those matters. The remaining 5 (five) Notices were not admitted.

CALLING ATTENTION

24 (twenty four) Calling Attention Notices on the matters of urgent Public Importance had been received from the Members during the Session of which 20 (twenty) Notices were admitted and enlisted in the list of Business. The Ministers concerned made statements in the House or laid written statements on the Table of the House on those matters. The remaining 4 (four) Notices were not admitted

LAYING OF PETITIONS

On 3rd arch, 2015, the undersigned laid on the Table of the House 1 (one) Petition which was countersigned by Shri Mano Ranjan Acharjee, MLA relating to the demand of the people of their respective Constituencies for development and welfare works. The Hon'ble Speaker referred the Petitions to the Committee on Petitions of the Tripura Legislative Assembly [or examination and Report to the House.

COMMITTEE REPORT

During the Session, apart from 2 (two) Reports of (he Business Advisory Committee, 1 (one) Report of the Select Committee, 7 (seven) Reports of the Public Accounts Committee, 1 (one) Report of the Public Undertakings Committee & 2 (Two) Reports of the Subject Committees I & II each were presented to the House.



PRIVATE MEMBERS RESOLUTIONS

During the Session, on 6th February, 2015 (Friday) and on 13th February, 2015, 2(two) days were allotted for taking up Private Members' Resolutions. Altogether 6(six) Resolutions were admitted. All of these were discussed and adopted unanimously, namely:-

- i. "Tripura Legislative Assembly opposes the immoral action for awarding facilities to Jotdars, Landlords, Contractors, Capitalists, Proprietors of mines and Corporate Sectors by way of curbing the right of the owners of Land and farmers by amendment of the Land Acquisition Act through Ordinance bypassing the Parliament and hence requests the Govt. of India to rescind the Ordinance which is against the interests of farmers".
- ii. "Tripura Legislative Assembly requests the Govt. of India to take effective steps immediately in order to remove the instability of the movement of Flights persisting since the last few months from Agartala to Kolkata/Delhi/Guwahati and to arrange for introducing adequate Flights keeping pace with the demands with a view to maintain stability in Air-services".
- iii. "Tripura Legislative Assembly requests the Central Govt. to take urgent steps in order to ensure National Food Security System by introducing Rationing System for all irrespective of BPL & APL and distribution of 14 to 15 Nos. essential commodities through rationing system in cheap and uniform rate across the country and entrusting the also State Govt. with effective power by amendment of the Essential Commodities Act".
- iv. "Tripura Legislative Assembly requests the Central Railways Ministry to immediately take effective steps to set up a quite separate Railway Division In Tripura".
- v. "Tripura Legislative Assembly requests the Central Surface Ministry to take effective steps to declare the road from Teliamura to Sabroom via Shitachheri as alternative National Highway and to start construction work immediately".
- vi. "Tripura Legislative Assembly requests the Central Civil Aviation Ministry to take an effective endeavour to immediately start construction work of Agartala Airport in order to improve it to be an International Airport".

FORMATION OF ASSEMBLY COMMITTEES

On 4th March, 2015, the Hon'ble Speaker announced in the House the names of the Chairmen & Members who had been elected uncontested to the below noted 5(five) Elected Assembly Committees for the financial year 2015- 2016, namely:-

- i. Committee on Public Accounts;
- ii. Committee on Estimates;



- iii. Committee on Public Undertakings;
- iv. Committee on Welfare of Scheduled Tribes;
- v. Committee on Welfare of Scheduled Castes, OBCs &, Minorities;

The Hon'ble Speaker further announced in the House the names of Chairmen and Members who had been nominated by him in respect of 10(ten) nominated Committees as per Rule 202(1) & 204(1) of the Rules of Procedure and Conduct of Business in the Tripura Legislative Assembly for the financial year 2015-2016, namely:-

- i. Business Advisory Committee.
- ii. Rules Committee.
- iii. Committee on Privileges.
- iv. Library Committee.
- v. Committee on Delegated Legislation.
- vi. Committee on Government Assurances.
- vii. Committee on Petitions.
- viii. Committee on Absence of Members from the Sitting of the House.
- ix. House Committee.
- x. Ethics Committee.

FINANCIAL BUSINESS

On 11th February, 2015 Shri Bhanulal Saha, Minister-in-charge of Finance Department presented before House the Supplementary Demands for Grants for the year 2014-2015. On the same day the Finance Ministers also presented before the House the Budget Estimates and Demands for Grants for the year 2015-2016.

The General discussion and voting on the Supplementary Demands for Grants was held on 18th February, 2015. Shri Sudip Roy Barman, Hon'ble Leader of the Opposition and Other 9 Members took part on the General discussion of the Supplementary Demands. Finance Minister, replied to the debate. Then all the Supplementary Demands for Grants for 2014-2015 were passed by the House.



The General discussion on Budget Estimates for the year 2015-2016 was held on the 19th February and 20th February, 2015. Shri Sudip Roy Barman, Leader of the Opposition and Other 9 Members took part on the General Discussion on the Budget Estimates for the year 2015-2016. Shri Bhanulal Saha, Finance Minister also replied to the debate.

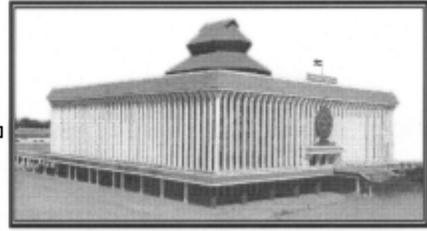
On 3rd and 4th March, 2015 the discussion and voting on the Budget Estimate and Demands for Grants for the year 2015-2016 was held. About 37 (thirty Seven) Cut Motion were moved and all of them were negatived by voice vote and all the Demands for Grants were duly passed by the House.

VALEDICTORY SPEECH

On 4th March, 2015 at the conclusion of the Business of the Session, the Hon'ble Speaker made a valedictory Speech before adjourning the House sine-die. In his speech, he expressed his gratitude to the Members of both the Treasury and the Opposition Benches for their co-operation in conducting the Business of the House smoothly. He also thanked all concerned including Officers and Staff of the Assembly Secretariat, Officers of different Departments, Police personnel, News agencies & Electronic media, Doordarshan and AIR etc. for their co-operation during the Session.



FOCUS



**As Passed by The Rajya Sabha
on 24th April, 2015.**

Bill No. XLIXC-C of 2014

THE RIGHTS OF TRANSGENDER PERSONS BILL, 2014

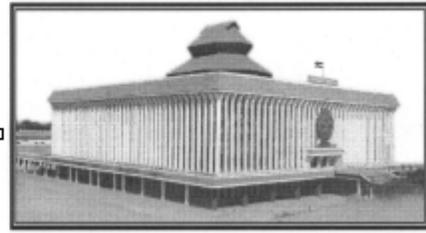
(AS PASSED BY THE RAJYA SABHA)

A

BILL

to provide for the formulation and implementation of a comprehensive national policy for ensuring overall development of the transgender persons and for their welfare to be undertaken by the State and for matters connected therewith and incidental thereto.

BE it enacted by Parliament in the Sixty-fifth Year of the Republic of India as follows:-



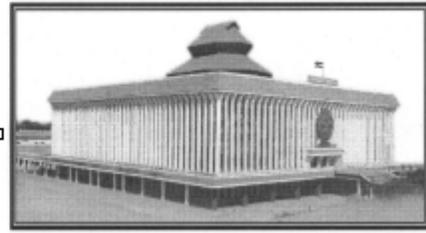
CHAPTER I

PRELIMINARY

5	<p>1. (1) This Act may be called the Right of Transgender Persons Act, 2014.</p> <p>(2) It extends to the whole of India</p> <p>(3) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.</p>	<p>Shot title, extent and commencement</p>
10	<p>2. In this Act, unless the context otherwise requires;</p> <p>(a) 'abuse' include verbal and physical abuse;</p> <p>(b) 'appointment government' means;</p> <p>(i) In relation to an establishment of the Central Government, or an establishment, wholly or substantially owned or financed by that Government, or a Cantonment Board constituted under the Cantonments Act, 1924, or a Union Territory without legislature, or provider of a service which pertains to List I in Schedule VII of the Constitution, the Central Government;</p> <p>(ii) In all other cases, the State Government or, as the case may be, the Government of a Union Territory with legislature.</p> <p>(b) 'barrier' means any factor including attitudinal, cultural, economic, institutional, political, religious, social or structural factors which hampers the full and effective participation, of transgender persons in society;</p> <p>(c) 'discrimination' means any distinction, exclusion or restriction on the basis of gender identity and expression which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field and includes all forms of discrimination, including denial of reasonable accommodation;</p> <p>(d) 'establishment' means and includes;</p> <p>(i) Departments and Ministeries of Government;</p> <p>(ii) Local authorities or bodies owned, controlled or aided by the Central or State Government;</p> <p>(iii) Any statutory or non-statutory body created, owned, financially or administratively controlled or aided by the Central or State Government or</p>	<p>Definition</p> <p>2 of 1924.</p> <p>5</p> <p>5</p> <p>15</p> <p>20</p>



- any such body performing public or civic functions and includes Government Companies as defined in Section 617 of the Companies Act, 1956; 25
- (iv) Any company, firm, cooperative or other society, association, trust, agency, institution, organisation, union, industry, supplier of goods or services, factory or other non-statutory body which is not covered under clause (a) to (c) and provides services as defined in clause (r) section 2; 30
- (e) ‘exclusive transgender rights court’ means a court notified under section 47 of the Act;
- (f) ‘exploitation’ means using a transgender person to one’s own advantage to which one is not otherwise entitled, or to the latter’s disadvantage, to which such latter person is not otherwise liable; 35
- (g) ‘higher education’ means a course of education which can be pursued after completing twelve years of school education;
- (h) ‘human rights’ shall have the meaning assigned to it in Clause (d) of Section 2 of the Protection of Human Rights Act, 1993; 10 of 1994
- (i) ‘inclusive education’ means a system of education wherein all students learn together, most or all of the time; 40
- (j) ‘institution’ means an institution for the reception, care, protection, education, training, rehabilitation or any other service of transgender persons;
- (k) ‘local authority’ means a municipality, a Cantonment Board, a Panchayat or any other authority, established under an Act of Parliament, or State Legislature to administer the civic affairs of any habitation as defined in or under such Act; 45
- (l) ‘National Commission’ means the National Commission for Transgender Persons constituted under Section 26 of this Act.
- (m) ‘prescribed’ means prescribed by rules made under this Act;
- (n) ‘public building’ means a building, irrespective of ownership, which is used and accessed by the public at large; and includes its entrance, exit, parking space, footpath and other appurtenant lands; 5
- (o) ‘reasonable accommodation’ means an accommodation needed to ensure transgender persons the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms;



10 (p) ‘registered organization’ means an association of transgender persons, or a voluntary, non-governmental or charitable organization or trust, society, non-profit company working for transgender persons, duly registered under an Act of Parliament or a State Legislature;

15 (q) ‘rehabilitation’ refers to a process aimed at enabling transgender persons to attain and maintain maximum independence, full physical, sensory, intellectual psychiatric, social and vocational ability, and inclusion and participation in all aspects of life

20 (r) ‘services’ means services provided by members of any profession or trade, or provided by any Government, local authority or establishment and includes services relating to banking and finance; education; health; insurance; rehabilitation; entertainment recreation and hospitality; transport or travel; and telecommunications;

(s) ‘State Commission’ means a State Commission for Transgender Persons constituted under Section 38 this Act.

25 (t) ‘trans gender person’ means a person, whose sense of gender does not match with the gender assigned to that person at birth and includes trans-men and trans-women (whether or not they have undergone sex reassignment surgery or hormone therapy or laser therapy etc.), gender-queers and a number of socio-cultural identities such as - *kinnars, hijras, aravanis, jogtas* etc.

(u) ‘violence’ means causing physical or mental harm or injury.

30 **3.** The appropriate Government and local authorities shall, subject to the Guiding provisions of this Act and any other law for the time being in force, take the Principles following necessary steps to secure for trans gender persons:-

Guiding Principles

(a) respect for inherent dignity, individual autonomy including the freedom to make one’s own choices, and independence of persons;

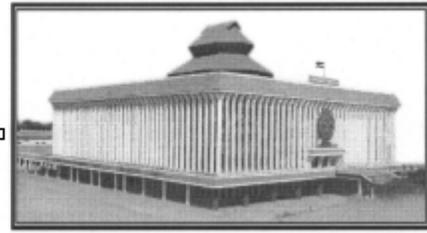
35 (b) non-discrimination;

(c) full and effective participation and inclusion in society;

(d) respect for difference and acceptance of transgender persons as part of human diversity and humanity;

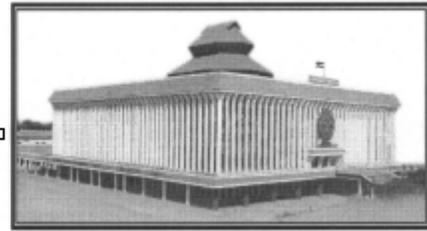
(e) equality of opportunity; and

40 (f) accessibility.



CHAPTER II
RIGHTS AND ENTITLEMENTS

Equality and Non- Discrimination	4. (1) The appropriate Government shall take all necessary steps to ensure that trans gender persons enjoy the right of equality guaranteed by article 15 of the Constitution of India on an equal basis with others.	5
	(2) The appropriate Government shall take all necessary steps to ensure reasonable accommodation for the trans gender persons.	
Transgender Children	5. (1) The appropriate Government and local authorities shall take all necessary measures to ensure that transgender children enjoy human rights on an equal basis with other children.	
	(2) The appropriate Government and local authorities shall ensure that all transgender children shall have on an equal basis with all other children a right to freely express their views on all matters affecting them; and provide them appropriate support for the exercise of the right.	10
Right to Life and Personal Liberty.	6. (1) The appropriate Government shall take necessary steps to ensure that trans gender persons enjoy the right to life with dignity and to personal liberty guaranteed by article 21 of the Constitution of India on an equal basis with others.	15
	(2) No person shall be deprived of his personal liberty only on the ground of being a transgender.	
Right to live in Community	7. (1) All transgender persons shall have the right to live in the community with choices equal to others.	20
	(2) The appropriate Government and local authorities shall take appropriate measures to ensure full enjoyment of the right mentioned in subsection (1) of section 7 by:-	
	(a) ensuring that transgender persons have access to a range of in-house, residential and other community support services, including assistance necessary to support living and inclusion with community; and	25
	(b) making community services and facilities for the general population available on an equal basis to transgender persons.	
Right to Integrity	8. Every trans gender person has a right to respect for his or her physical and mental integrity on an equal basis with others.	



National Legal Services Authority or the State Legal Services Authority for the benefit of transgender persons;and

45 of 1860 20 (e) the right to file a complaint under the relevant provisions of the Indian Penal Code, 1860 or any other law dealing with such crimes:

Provided that nothing in this section shall be construed to free such Police Officer of his obligation to proceed in accordance with law upon receipt of information as to the commission of a cognizable offence.

40 of 1860 25 (5) If the Executive Magistrate finds that the alleged act or behaviour would also be an offence under the Indian Penal Code, 1860 or under any other law imposing criminal sanctions on such acts, he may forward a complaint to that effect to the Judicial or metropolitan magistrate, as the case may be, having jurisdiction in the matter, whereupon the latter shall act on it forthwith in accordance with law.

30 (6) The appropriate Government shall take all appropriate measures to prevent abuse violence and exploitation against transgender persons by, *inter alia* providing information and raising awareness on:

(a) taking cognizance of incidents of abuse, violence and exploitation;

(b) the legal remedies available against such incidents;

(c) steps to be taken for avoiding such incidents;

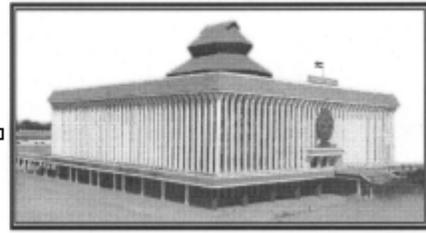
35 (d) pocedure for reporting such incidents; and

(e) steps required for the rescue, protection and rehabilitation of trans gender persons who have been victims of such incidents.

40 **11.** (1) No child who is a trans gender shall be separated from his or her parents on grounds of being a transgender except on an order of competent Court, if required in the best interest of and the child. Right to Homeand Family

(2) Where the immediate family is unable to care for ‘a transgender child, the competent Court shall make every. effort to place such child within his or her extended family, or within the community in a family setting.

45 *Explanation-* ‘Family’ means a group of people related by blood, marriage or adoption to a transgender person.



Freedom of Speech, etc.

12. The appropriate Government and local authorities shall take steps to ensure that transgender persons are able to enjoy the rights regarding freedom of speech, etc., provided by Article 19 of the Constitution of India, on an equal basis with others.

CHAPTER III

EDUCATION

5

Duty of Educational Institutions to provide Inclusive Education to Transgender Students.

13. The appropriate Government and local authorities shall ensure that all educational institutions funded or recognized by them, provide inclusive education, and *inter alia*,

(i) admit trans gender students without discrimination and provide them education as also opportunities for sports, recreation and leisure activities on an equal basis with other;

10

(ii) provide reasonable accommodation of the individual's requirements;

(iii) provide necessary support in environments that maximize academic and social development, consistent with the goal of full inclusion;

(iv) monitor participation, progress in terms of attainment levels, and completion 15 of education, in respect of every trans gender student.

15

Adult Education for Transgender Persons.

14. The Appropriate Government and local authorities shall ensure participation of transgender persons in adult education and continuing education programmes on an equal basis with others.

CHAPTER IV

20

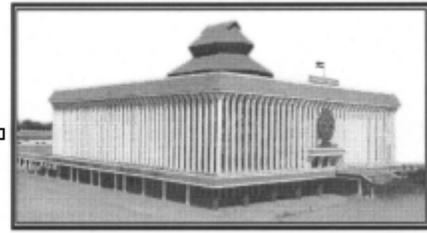
SKILL DEVELOPMENT & EMPLOYMENT

Vocational Training and Self-Employment

15. (1) The appropriate Government shall formulate schemes and programmes to facilitate and support employment of trans gender persons especially for their vocational training and self-employment.

(2) The appropriate Government shall institute mechanisms for provision of loans at 25 concessional rates to transgender persons for self-employment ventures, and for marketing of their products.

25



Non-Discrimination in Employment.

16. (1) No establishment shall discriminate against any trans gender person in any matter relating to employment including but not limited to recruitment, promotion and other related issues.

30

(2) Any trans gender person, if eligible for any post which is be filled, shall have the right to appear for selection and hold the post if selected .

CHAPTER V

SOCIAL SECURITY, HEALTH, REHABILITATION & RECREATION

Social Security.

17. (1) The appropriate Government shall promulgate necessary schemes and programmes to safeguard and promote right of trans gender persons to adequate standard of living and living conditions to enable them to live independently and in the community.

35

(2) the schemes under sub-section (1) of section 17 shall inter-alia provide:-

(a) safe and hygienic community centres with decent living conditions in terms of nutritious food, sanitation, health care and counselling;

40

(b) facilities for persons including transgender children who have no families or have been abandoned, or are without shelter or livelihood;

(c) access to safe drinking water and appropriate and accessible sanitation facilities especially in urban slums and rural areas.

(d) pension to transgender persons subject to such income ceiling as may be prescribed;

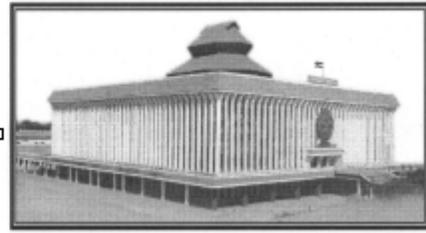
(e) unemployment allowance to unemployed trans gender persons registered with special employment exchange for more than two years and who could not be placed in any gainful occupation.

18. (1) The appropriate Government and local authorities shall take necessary measures to provide trans gender persons:-

Health case facilities.

(a) separate HIV Sero-surveillance Centres since they face several sexual health issues;

(b) sex reassignment surgery, free of cost;



(c) barrier-free access in the hospitals and other healthcare institutions and centres;

15 (2) To fulfil its obligation under this Section, the appropriate Governments shall make schemes and programmes with participation and involvement of trans gender persons and care-givers that inter alia makes provision for coverage of medical expenses and therapeutic intervention by a comprehensive insurance scheme for trans gender persons.

19. (1) The appropriate Government and local authorities shall undertake or cause to be undertaken services and programmes of rehabilitation, particularly in the areas of health, education and employment for all trans gender persons.

Rehabilitation
of
trans genders.

20 (2) The service and programmes shall be designed so to begin at the earliest possible stage and to be based on a comprehensive assessment of issues faced by transgender persons.

25 (3) For purposes of sub-section (1) of section 19, read with sub-section (2), the appropriate Government and local authorities shall, subject to fulfilment of financial and other norms, and availability of budgetary allocation, grant financial assistance to non- governmental organizations.

(4) The appropriate Government and local authorities, while formulating rehabilitation policies, shall consult the non-governmental organizations working for the cause of transgender persons.

30 (5) Without prejudice to the generality of sub-section (1) of section 19, the appropriate Government shall by notification formulate schemes to provide aid to transgender persons.

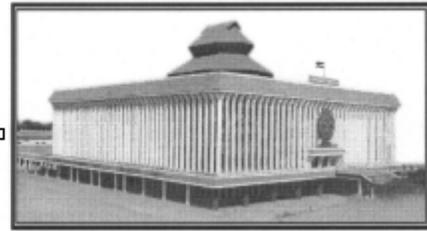
20. (1) The appropriate Government and local authorities shall take suitable measures to promote and protect the right of all trans gender persons to have a cultural life and to participate in leisure and recreational activities on an equal basis with others.

Leisure,
Culture
and
Recreation.

35 (2) Without prejudice to the general obligation in sub-section (1) of section 20, such measures shall include,-

(a) Sponsoring of trans gender film, theatre, music and dance festivals;

(b) establishment of a transgender history museum which chronicles and interprets the historical experiences of trans gender persons;



40	<p>21. AU Government institutions of primary, secondary and higher education and all primary, secondary and higher education institutions receiving aid from the Government shall reserve two percent of the total seats in each class or course for trans gender persons:</p> <p style="padding-left: 40px;">Provided that transgender persons are not to be prevented from competing for seats which are not reserved for them.</p>	Reservation in Primary, Secondary and Higher Educational Institutions.
45	<p>22. Every appropriate Government shall reserve, in every establishment under them, not less than two per cent of the vacancies meant to be filled by direct recruitment, for transgender persons.</p>	Reservation of Posts for Transgender Persons.
Incentive to employers in the Private Sector.	<p>23. The appropriate Government shall, within a period of one year from the commencement of this Act, provide incentives to employers in the private sector to ensure that at least two per cent of their work force is composed of transgender persons within a period of five years from the commencement of the Act.</p>	
Special Employment Exchange.	<p>24. (1) The appropriate Government may, by notification, specify that the employer in every establishment shall furnish such information or return as may be prescribed in relation to vacancies appointed for transgender persons that have occurred or are about to occur in that establishment to such Special Employment Exchange as may be prescribed and the establishment shall thereupon comply with such information.</p>	5
	<p>(2) The form in which and the intervals of time for which information or returns shall be furnished and the particulars, they shall contain shall be such as may be prescribed.</p>	10

CHAPTER VI

DUTIES AND RESPONSIBILITIES OF APPROPRIATE GOVERNMENT

Awareness Raising.	<p>25. (1) The appropriate Government in consultation with the National or State Commission, as the case may be, shall conduct, sponsor, encourage, support or promote on a regular and continuous basis information campaigns and sensitization programmes to ensure that the rights recognized in this legislation are respected, protected and promoted.</p>	15
	<p>(2) The campaigns shall aim at enabling both state and civil society to comprehend transgenderism as an integral part of the human condition, to recognize the capabilities and contributions of trans gender persons, and to combat the stereotypes, prejudices and harmful practices which impede the participation of trans gender persons on an equal basis with others;</p>	20



(3) Without prejudice to the general awareness raising obligation in sub-section (1) of section 25, such programmes, campaigns and workshops shall inter-alia,-

(a) Promote values of inclusion, tolerance, empathy and respected for diversity; 25

(b) advance recognition of the skills, merits and abilities of trans gender persons and of their contributions to the workforce, labour market and professional fee;

(c) Foster respect for the decisions made by trans gender persons on all mailers related to family life, relationships, bearing and raising children;

(d) Provide orientation and sensitization at the school, college, university and professional training level on the human condition of transgenderism and the rights of transgender persons; and 30

(e) Provide orientation and sensitization on transgenderism and rights of transgender persons to employers, adminsitratros and co-workers.

CHAPTER VII 35

NATIONAL AND STATE COMMISSIONS FOR TRANSGENDER PERSONS

A. National Commission

Constitution of National Commission for Transgender Persons. 26. (1) The Central government shall, by notification, constitute a body to be known as the National Commission for transgender persons to exercise the powers conferred upon, and to perform the functions assigned to it, under this Act. 40

(2) The Commission shall consist of the following Members, namely,-

(a) a Chairperson, who is an eminent person with a distinguished record of service in the field of transgender rights and rehabilitation; and

(b) six members, of whom at least three shall be transgender persons and to be popularly acknowledged by the representatives of the transgender community and the other three members must have a distinguished record of service in the fields of rehabilitation, advocacy, law, relating to transgenders. 45

(3) The Chairperson and the Members shall be appointed by the Central



Government on the recommendation of a Selection Committee with such composition as may be prescribed.

(4) The Headquarters of the National Commission should be at such place as the Central Government may by notification, specify.

5 27. The Chairperson and a Member of the National Commission shall hold office for a term of three years from the date on which he enters upon his office or until he attains the age of sixty five years, whichever is earlier and shall be eligible for reappointment for another term of three years. Term of office of Chairperson and members.

10 28. (1) The Chairperson or any Member may, by notice in writing under his hand addressed to the President; resign his office. Resignation and Removal of Chairperson.

(2) Subject to the provisions of sub-section (3) of Section 28, the Chairperson or any Member shall only be removed from his office by order of the President on the ground of proven misbehaviour or incapacity has, on an inquiry held in accordance with the procedure, prescribed under this Act.

15 (3) Notwithstanding anything in sub-section (2) of Section 28, the President may, by order, remove from office the Chairperson or any Member, if the Chairperson or such Member, as the case may be:-

(a) is adjudged an insolvent; or

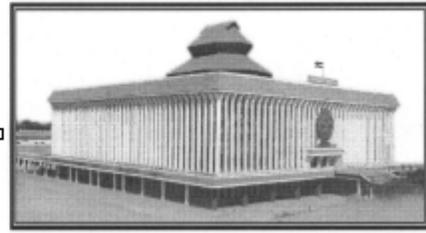
20 (b) engages during his term of office in any paid employment outside the duties of his office; or

(c) is convicted and sentenced to imprisonment for an offence which in the opinion of the Central Government involves moral turpitude.

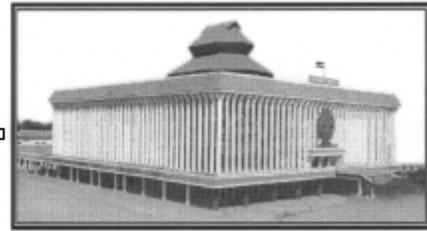
25 29. (1) In the event of the occurrence of any vacancy in the office of the Chairperson by reason of his death, resignation or otherwise, the President may, by notification, authorise one of the members to act as the Chairperson until the appointment of a new Chairperson to fill such vacancy. Member to act as Chairperson or to Discharge his

30 (2) If the Chairperson is unable to discharge his functions, owing to absence on leave or otherwise, one of the Member, as the President may, by notification, authorise in this behalf, shall discharge the functions of the Chairperson until the date on which the Chairperson resumes his duties. Functions in Certain Circumstances.

30. The salaries and allowances payable to and other terms and conditions of service of, the Chairperson and the Members shall be such as may be prescribed: Terms and Conditions of



35	Provided that neither the salary and allowances nor the other terms and conditions of service of the Chairperson or a member shall be varied to his disadvantage after his appointment.	Service of Chairperson and Members.
40	31. No act or proceedings of the Commission shall be questioned or shall be invalidated merely on the ground of existence of any vacancy or defect in the constitution of the Commission.	Vacancies, etc., not to Invalidate the Proceedings of the Commission.
40	32. (1) The Commission shall meet at such time and place as the Chairperson may think fit.	Procedure to be Regulated by the Commission.
	(2) Subject to the provisions of this Act and the rules made thereunder, the Commission shall have the power to lay down, by regulations, its own procedure.	
	(3) All orders and decisions of the Commission shall be authenticated by the Secretary or any other officer of the Commission duly authorised by the Chairperson in this behalf.	
Officers and Other Staff of the Commission.	33. (1) The Central Government shall make available to the Commission an officer of the rank of an Additional Secretary to the Government of India who shall be the Secretary to the Commission.	
	(2) Subject to such rules as may be made by the Central Government in this behalf, the Commission may appoint such other administrative and technical officers and staff, as it may consider necessary.	5
	(3) The salaries, allowances and conditions of service of the officers and other staff appointed under sub-section (2) of section 33 shall be such as may be prescribed.	
Functions of the Commission.	34. The Commission shall perform all or any of the following functions, namely:-	
	(a) identify, <i>suo-moto</i> , or on a representation received, provisions of any laws, policies, programmes and procedures, which are inconsistent with this Act, and recommend necessary corrective steps;	10
	(b) review and coordinate the activities of all Departments of Government and other Governmental and non-Governmental Organizations which are dealing with matters concerning trans gender persons;	15
	(c) inquire, <i>suo-moto</i> or on a complaint by an affected trans gender	



person or any person or organization on his behalf, with respect to deprivation of his rights and safeguards in respect of matters for which the Central Government is the appropriate Government and take the up the matter with the appropriate authorities for corrective action, as necessary; 20

(d) intervene in any proceeding involving any allegation of violation of the rights of transgender persons pending before a court with the approval of such court;

(e) review the safeguards provided by or under this Act or any law for the time being in force for the protection of rights of trans gender persons and review the factors that inhibit the enjoyment of rights of transgender persons and recommend appropriate remedial measures; 25

(f) study treaties and other international instruments on the rights of trans gender persons and make recommendations for their effective implementation;

(g) undertake and promote research in the field of the rights of transgender persons; 30

(h) promote awareness of the rights of trans gender persons and promote awareness of the safeguards available for their protection;

(i) monitor implementation of the provisions of this Act and of schemes, programmes, etc., meant for transgender persons;

(j) monitor utilization of funds disbursed by the Central Government for the benefit of trans gender persons; and 35

(k) such other functions as the Central Government may assign.

Action by Appropriate Authorities on the Commission's Recommendations made after Enquiry.

35. Whenever the Commission makes a recommendation to an authority in pursuance of clause (c) of Section 34, that authority shall take necessary action on it, and inform the Commission of the action taken within three months from the date of receipt of the recommendation: 40

Provided that where an authority does not accept a recommendation, it shall convey reasons for non-acceptance to the Commission within the above period of three months, and shall also inform the aggrieved person.

5of 1908 36. (1) The Commission shall, for the purpose of discharging its Powers of the Commission. functions under the Act, have all the powers of a Civil Court trying a suit under the Code of Civil Procedure, 1908 and in particular in respect of the



following matters, namely,-

- 5 (a) summoning and enforcing the attendance of witnesses and examining them on oath;
- (b) discovery and production of any document;
- (c) receiving evidence on affidavits;
- (d) reinvesting for any public record or copy thereof from any court or office;
- (e) issuing commissions for the examination of witnesses or documents; or
- 10 (f) any other matter which may be prescribed.

(2) The Commission may, while investigating a complaint, make written requests to furnish information, question people, review documents or visit the premises to determine upon the nature of violation or non-compliance of regulations.

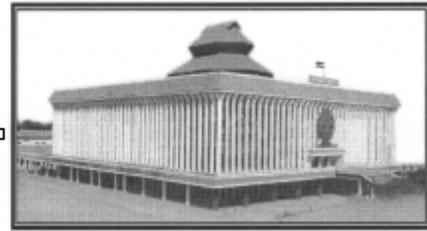
15 (3) Every proceeding before the Commission shall be deemed to be a Judicial proceeding within the meaning of sections 193 and 228, and for the purposes of section 196, of the Indian Penal Code 1860 and the Commission shall be deemed to be a civil court for all the purposes of section 195 and Chapter XXVI of the Code of Criminal Procedure, 1973
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20 37. (1) The National Commission shall submit an annual report to the Central Government and may at any time submit special reports on any matter which, in its opinion, is of such urgency or importance that it shall not be deferred till submission of the annual report. Annual and Special Reports of the Commission.

25 (2) The Central Government shall cause the annual and special reports of the Commission to be laid before each House of Parliament, along with a memorandum of action taken or proposed to be taken on the recommendations of the Commission, and the reasons for non- acceptance of the recommendations, if any.

B. State Commission

38. (1) Every State Government may constitute a body to be known as the State Commission (name of the State) for trans gender persons to exercise the powers conferred upon, and to perform the functions assigned Constitution of Stale Commission



to, a State Commission under this chapter.

for
Transgender
Persons.

30 (2) The State Commission shall, with effect from such date as the State Government may by notification specify, consist of-

(a) a Chairperson, who is an eminent person with a distinguished record of service in the field of trans gender rights; and

35 (b) six members, of whom at least three shall be transgender persons and to be popularly acknowledged by the representatives of the transgender community and the other three members must have a distinguished record of service in the field of rehabilitation, advocacy, law, relating to transgenders.

(3) The Chairperson and the Members shall be appointed by the State Government on the recommendation of Selection Committee with such composition, as may be prescribed.

40 (4) The headquarters of the State Commission shall be at such place as the State Government may, by notification, specify.

45 (5) A State Commission may inquire suo-moto or on a complaint by an affected transgender person or any person or organization on his behalf, with respect to deprivation of his rights and safeguards in respect of matters for which the State Government is the appropriate Government.

Resignation and Removal of Chairperson and Members. 39. (1) The Chairperson or any Member may, by notice in writing under his hand addressed to the Governor resign his office.

(2) Subject to the provisions of sub-section (3) of section 39, the Chairperson or any Member shall only be removed from his office by order of the Governor on the ground of proved misbehaviour or incapacity has, on inquiry held in accordance with the procedure prescribed under this Act.

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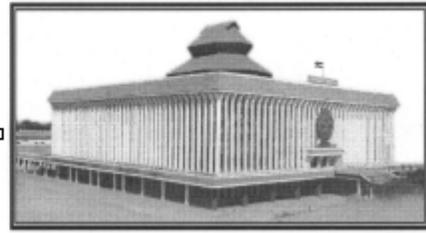
(3) Notwithstanding anything in sub-section (2) of. section 39 the Governor may, by order, remove from office the Chairperson or any Member, if the Chairperson or such Member, as the case may be-

(a) is adjudged an insolvent; or

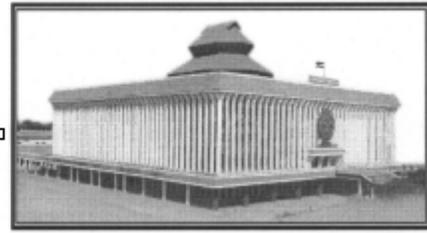
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(b) engages during his term of office in any paid employment outside the duties of his office; or

(c) is convicted and sentenced to imprisonment for an offence which in the opinion of the Central Government involves moral turpitude.



Term of Office of Chairperson and Members.	40. The Chairperson and Members of the State Commission shall hold office for a term of three years from the date on which he enters upon his office or until he attains the age of sixty-five years, whichever is earlier and shall be eligible for reappointment for another term of three years.	15
Member to act as Chairperson or to Discharge his Functions in Certain Circumstances.	41. (1) In the event of the occurrence of any vacancy in the office of the Chairperson by reason of the death, resignation or otherwise, the Governor may, by notification authorise one of the Members to act as the Chairperson until the appointment of a new Chairperson to fill such vacancy. (2) If the Chairperson is unable to discharge his functions owing to absence on leave or otherwise, one of the Member as the Governor may, by notification, authorise in this behalf, shall discharge the functions of the Chairperson until the date on which the Chairperson resumes his duties.	20 25
Terms and Conditions of Service of Chairpersons and Members.	42. The salaries and allowances payable to, and other terms and conditions of service of, the Chairperson and the Members shall be such as may be prescribed: Provided that neither the salary and allowances nor the other terms and conditions of service of the Chairperson or a Member shall be varied to his disadvantage after his 30 appointment.	30
Officers and other staff of the Commission.	43. (1) The State Government shall make available to the Commission an officer of the rank of the Secretary to the State Government who shall be the Secretary to the Commission. (2) Subject to such rules as may be made by the State Government in this behalf, the Commission may appoint such other administrative and technical officers and staff as it may consider necessary. (3) The salaries, allowances and conditions of service of the officers and other appointed under sub-section (2) of section 43, shall be such as may be prescribed.	35
Annual and Special Reports of State Commission.	44. (1) The State Commission shall submit an annual report to the State Government and may at any time submit special reports on any matter which, in its opinion, is of such urgency or importance that it should not be deferred till submission of the annual report. (2) The State Government shall cause the annual and special reports of the State Commission to be laid before each House of State Legislature, where it consists of two Houses, or where such Legislature consists of one House, before that House along with a memorandum of action taken or	40 45



proposed to be taken on the recommendations of the State Commission and the reasons for non-acceptance of the recommendations, if any.

45. The provisions of section 32, 34 and 35 shall apply, mutatis mutandis to a State Commission and shall have effect, subject to the following Modifications, namely,-

Application of certain provisions relating to National Commission

(a) reference to “commission” shall be construed as references to “State Commission”; and

5 (b) in section 34, clause (f) shall be omitted.

(c) reference to “central Government be construed as references to “State Government”.

CHAPIER VIII

TRANSGENDER RiGHTS COURTS

10 46. For the purpose of speedy disposal of suits of a civil nature which may be filed by on behalf of transgender persons regarding infringement of their rights as a transgender person, under this or any other law for the time being in force, the State Government may, with the concurrence of the Chief Justice of the High Court, by notification in the official gazette, specify for
15 each sub-division, a court to be a Special Transgender Rights Court for the hearing and disposal of such suits and criminal cases, as prescribed.

Special Transgender Rights Courts.

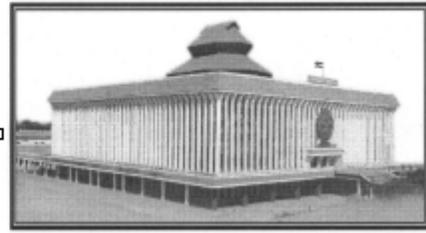
47. Notwithstanding anything contained in Section 46, the State Government, with the concurrence of the Chief Justice of the High Court, by notification in the Official Gazette:-

Exclusive trans gender rights Courts.

(i) may establish for each district, and
20 (ii) shall establish for each city with a population of 10 lakh or more as per the last Census, a court as an exclusive Transgender Rights Court, and such court shall hear and dispose of only suits of the type mentioned in Section 46.

25 48. Where a district has one or more exclusive Transgender Rights Courts established under Section 47, their jurisdiction vis-a-vis that of Special Transgender Rights Courts specified under Section 46, shall be such as the State Government may, by notification in the official Gazette, specify.

Jurisdiction of Transgender Rights Courts.



CHAPTER IX

OFFENCES & PENALTIES

30 49. (1) Where any offence under this Act has been committed by an establishment, every person who, at the time the offence was committed, was the appointed head or was directly in charge of, and was responsible to the establishment for the conduct of its business, as well as the establishment, shall be deemed to be guilty of the offence, and shall be liable to be proceeded against and punished accordingly:

Offences by
Establishments.

35 Provided that nothing contained in sub-section (1) of Section 49, shall render any such person liable to any punishment provided in this Act, if he proved that the offence was committed without his knowledge or that all due diligence was exercised to prevent the commission of such offence.

40 (2) Notwithstanding anything contained in sub-section (1) of section 49, Where an offence under this Act has been committed by an establishment and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of any other officer of the establishment, such person shall also deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

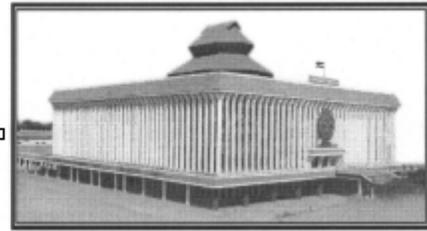
45 50. Whoever voluntarily or knowingly commits or abets the offence by words, either spoken or written, or by signs or by visible representations or otherwise, shall be punished with imprisonment for a term which may extend to one year and with fine.

Penalty for
Hate
Speech.

Penalty
for
Failure to
Furnish
Information.

51. Whoever fails to produce any book, account or other document or to furnish any statement, information or particulars which, under this Act or any order, regulation or direction made or given thereunder, he is duty bound to produce or furnish or to answer any question put in pursuance of the provisions of this Act or of any order, regulation or direction made or given thereunder, shall be punishable with fine which may extend to rupees twenty-five thousand in respect of each offence, and in case of continued failure or refusal, with further fine which may extend to rupees one thousand for each day, of continued failure or refusal after the date of original order imposing punishment of fine.

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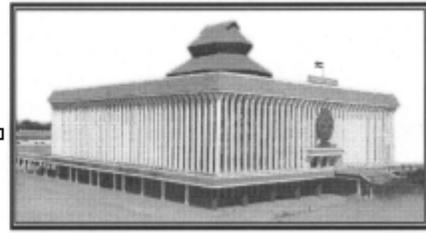


CHAPTER X

MISCELLANEOUS

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Central Government to provide funds.	52. The Central Government shall, after due appropriation made by Parliament by law in this behalf, provide adequate funds, from time to time, for carrying out the purposes of this Act	
Act to be in Addition to and not in derogation of any other law.	53. The provisions of this Act or the rules made there under shall be in addition and not in derogation of any other legislation, rules, orders or instructions which provides any entitlement or benefit to transgender persons.	15
Action taken in good faith.	54. No suit prosecution or other legal proceeding shall lie against any person for anything which is done in good faith or intended to be done under this Act or any rule there made under.	
Power to remove difficulties.	55. (1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government may, by order published in the Official Gazette, make such provisions, not inconsistent with the provisions of this Act as appear to it to be necessary or expedient for removing the difficulty:	20
	Provided that no such order shall be made after the expiry of the period of two years from the date of commencement of this Act.	25
	(2) Every order made under this section shall, as soon as may be after it is made, be laid before each House of Parliament.	
Power of appropriate Government to make rules.	56. (1) Subject to the other Provisions of this Act, the appropriate Government may, by notification, make rules for carrying out the provisions of this Act.	
	(2) Prior to the formation of the rules, the appropriate Government shall make available the draft of the rules in accessible formats to the members of the public and invite their suggestions and objections to the same.	30
	(3) Every rule made by the Central Government under this Act shall be laid, as soon as may be after it is made before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule of both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form, or be of no effect as the case may be; so, however, that any such modification or annulment shall	35
		40



be without prejudice to the validity of anything previously done under that rule.

(4) Every rule made by the State Government under this section shall be laid, as soon as may be after it is made, before each House of the State Legislature where it consists of two Houses, or where such legislature consists of one House, before that House.

Powers of National Commission to make Regulations.

57. (1) The National Commission may with the previous approval of Central Government, by notification make regulations consistent with this Act and the rules for the effective implementation of the purposes of this Act, in respect of the matters to any of the entries enumerated in List I and List III in the Seventh Schedule to the Constitution.

45

(2) Without prejudice to the generality of sub-section (1) of section 57, the National Commission shall make regulations relating to the,-

(a) establishment of such committees as may be required for the efficient performances of its functions;

5 (b) composition, membership, qualification, terms and conditions of appointment, removal, tenure, meetings, quorum and resignation of the Committees, formed by the National Commission;

(c) rules of procedure for transaction of business;

10 (d) rules of procedure for convening meetings of Chairpersons of State Commissions;

(e) form in which and the time at which the meetings to be called;

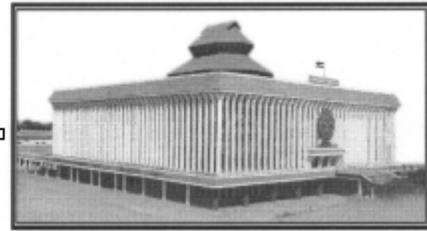
(f) manner in which and the time at which meetings of National Commission to be convened ; and

(g) any other matter incidental or ancillary for the enforcement of this Act.

15 (3) Prior to be finalization of the regulations, the National Commission shall make available the draft rules in accessible formats to the members of the public and invite their suggestions and objections to the same.

20 58. (1) The State Commission shall have the power to issue regulations with the Previous approval of State Governments, which are in conformity with the Act and the Rules for the effective implementation of the purposes

Power of the State Commission



of this Act, in respect of the matters relatable to any of the entries enumerated in List II and List III in the Seventh Schedule to the Constitution: to make Regulations.

25 Provided that where any regulation has already been issued in any such matter pertaining to List III by the National Commission, such regulations shall prevail over the regulations of the State Commission pertaining to the said matter.

(2) Without prejudice to the generality of sub-section (1) of Section 58, the State Commission shall make regulations relating to the,-

(a) establishment of such Committees as may be required for the efficient performance of its functions;

30 (b) composition, membership, qualifications, terms and conditions of appointment, removal, tenure, meetings, quorum and resignation of the Committees formed by the State Commission; and

(c) any other matter incidental or ancillary for the enforcement of this Act.

35 (3) Prior to the finalization of the regulations, the State Commission shall make available the draft rules in accessible formats to the members of the public and invite their suggestions and objections to the same.

FOCUS



RAJYA SABHA

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BILL

to provide for the formulation and implementation of a comprehensive national policy for ensuring overall development of the transgender persons and for their welfare to be undertaken by the State and for matters connected therewith and incidental thereto.

(As passed by the Rajya Sabha)

FOCUS



THE LEGISLATIVE BODIES IN SESSION DURING THE MONTH OF APRIL 2015

SI No.	Name of Assembly/Council	Duration
1.	Loksabha	20.04.2015 - 29.04.2015
2.	Rajyasabha	23.04.2015 - 29.04.2015
3.	Karnataka Legislative Assembly	20.04.2015 - 27.04.2015
4.	Karnataka Legislative Council	20.04.2015 - 27.04.2015
5.	Rajasthan Legislative Assembly	25.02.2015 - 09.04.2015



Site Address of Legislative Bodies in India

Sl.No	Name of Assembly/Council	Site Address
1.	Loksabha	loksabha.nic.in
2.	Rajyasabha	rajyasabha.nic.in
3.	Andhra Pradesh Legislative Council	aplegislature.org
4.	Andhra Pradesh Legislative Assembly	aplegislature.org
5.	Arunachal Pradesh Legislative Assembly	arunachalassembly.gov.in
6.	Assam Legislative Assembly	assamassembly.nic.in
7.	Bihar Legislative Assembly	vidhansabha.bih.nic.in
8.	Bihar Legislative Council	biharvidhanparishad.gov.in
9.	Chhattisgarh Legislative Assembly	cgvidhansabha.gov.in
10.	Delhi Legislative Assembly	delhiassembly.nic.in
11.	Goa Legislative Assembly	goavidhansabha.gov.in
12.	Gujarat Legislative Assembly	gujaratassembly.gov.in
13.	Harayana Legislative Assembly	haryanaassembly.gov.in
14.	Himachal Pradesh Legislative Assembly	hpvidhansabha.nic.in
15.	Jammu and Kashmir Legislative Assembly	jklegislativeassembly.nic.in
16.	Jammu and Kashmir Legislative Council	jklegislativecouncil.nic.in
17.	Jharkhand Legislative Assembly	jharkhandvidhansabha.nic.in
18.	Karnataka Legislative Assembly	kar.nic.in/kla/assembly
19.	Karnataka Legislative Council	kar.nic.in/kla/council/council



20.	Madhya Pradesh Legislative Assembly	mpvidhansabha.nic.in
21.	Maharashtra Legislative Assembly	mls.org.in/Assembly
22.	Maharashtra Legislative Council	mls.org.in/Council
23.	Manipur Legislative Assembly	manipurassembly.nic.in/
24.	Meghalaya Legislative Assembly	megassembly.gov.in/
25.	Mizoram Legislative Assembly	mizoramassembly.in
26.	Nagaland Legislative Assembly	http://nagaland.nic.in
27.	Odisha Legislative Assembly	odishaassembly.nic.in
28.	Puducherry Legislative Assembly	www.py.gov.in
29.	Punjab Legislative Assembly	punjabassembly.nic.in
30.	Rajasthan Legislative Assembly	rajassembly.nic.in/
31.	Sikkim Legislative Assembly	sikkimasembly.org
32.	Tamil Nadu Legislative Assembly	assembly.in.gov.in
33.	Tripura Legislative Assembly	tripuraassembly.nic.in/
34.	Uttar Pradesh Legislative Assembly	uplegassembly.nic.in
35.	Uttar Pradesh Legislative Council	upvidhanparishad.nic.in
36.	Uttarakhand Legislative Assembly	ukvidhansabha.uk.gov.in
37.	West Bengal Legislative Assembly	wbassembly.gov.in/
38.	Telengana Legislative Assembly	telenganalegislature.org.in