

Defending Democracy

An Inquiry into India's Election System

Preface

[M.G. Devasahayam ***]

In the recent years India's democracy has been called into question by international watchdogs. In the 2019 Democracy Index released by the intelligence unit of The Economist Group, London, India had slipped by 10 ranks to 51st position – a big downgrade. The Index categorised India under “flawed democracies.”

Post Parliament Election-2019 there has been a sharp decline. The 2020 'Democracy Report' by the V-Dem Institute based at the University of Gothenburg puts India in the league of countries who have seen significant slides into authoritarianism. India's democratic process is 'on a Path of Steep Decline', the Report says. This has been evidenced from the happenings in the past over 6 years, more so during the last year and a half when there has been a consistent manifestation of a regressive authoritarian regime.

These developments turned our attention to the way in which Parliament Election-2019 was conducted, votes counted and results declared. Josef Stalin has been quoted as saying, “It's not the people who vote that count, it's the people who count the votes.” In Stalin's Russia, this was the common norm. Similar and other kinds of comments were being made about Parliament Election-2019.

We also noticed that India has a deeply flawed first-past-the-post election system wherein a political party winning just about 25% of the electorate's mandate can capture power by having majority number of MPs and impose its will on the entire population as is happening now. Let us look at Parliament Election-2019 and the composition of the present Lok Sabha. For this election India had a total electorate of 91.05 crores out of which 67.40% polled which was 61.36 crores. Ruling party (BJP) secured 37.36% of these polled votes which was 22.90 crores and won 303 seats. If it had been proportional representation system BJP's seat share would have been only 201 which is far from majority. Furthermore, if BJP's vote share is to be taken as percentage of total electorate it turns out to be just 25.15%. This means that in the 2019 Parliament election the current ruling dispensation received the mandate of only one-fourth of India's electorate.

This itself is a cruel assault on representative democracy. What is worse, in the matter of Parliament Election-2019 its very integrity was called into question. In a healthy democracy, citizens are expected to take an active interest in the process and conduct of elections. The Election Commission of India (ECI), set up under Article 324 of the Constitution of India, has often worked in close collaboration with non-political organisations dedicated to the strengthening of democracy. Such bodies of citizens have provided valuable feedback to the Commission and have flagged issues of concern or alarm.

ECI's conduct of the Parliamentary Election-2019 invited serious controversy and criticism and its very fairness was questioned, with adequate reasons, by several organisations. The Association for Democratic Reforms, the Constitutional Conduct Group (CCG) of former civil servants and the Forum for Electoral Integrity were among the several groups that were compelled to draw public attention to the lack of integrity of EVM voting and ECI's departure from neutrality. Many political parties, mainstream and digital media houses and civil society groups also voiced serious apprehensions at the manner in which the 'model code of conduct' was being violated by the ruling party without adequate retribution from the ECI. Election Commission responded to these justified criticisms with a very alarming silence or jumped aggressively to defend its unsatisfactory handling, even when patent

infirmities were specifically pointed out by several former civil servants who have also conducted/supervised elections.

The response of ECI to all these serious public concerns was indifferent bordering on hostility. So, myself along with some colleagues took the initiative to consult other anxious civil society groups and apolitical platforms. In 2019 and 2020, seminars and public discussions were held by groups like the Forum for Electoral Integrity, People First, Delhi Science Forum, Constitutional Conduct Group, Aman Biradari Trust and the Centre for Financial Accountability. Of the suggestions that emanated, a unanimous one was to constitute a body of eminent and experienced persons with domain knowledge on issues relating to elections. Thus, the Citizens' Commission on Elections (CCE) was constituted to delve deeper into critical aspects concerning elections, call for expert advice where necessary and come up with appropriate findings and suggestions to ensure that elections are conducted with fairness and integrity.

After due deliberations CCE was set up on March 5, 2020 and went into specific areas/themes concerning elections:

- i Integrity and inclusiveness of the Electoral Rolls.
- ii Electronic Voting [EVM/VVPATs] and its compliance with Democracy Principles.
- iii Criminalization, money power and Electoral bonds.
- iv Scheduling and processes of elections and compliance of Model Code of Conduct.
- v Role of media including social media, fake news, etc.
- vi Autonomy of ECI and its functioning before, during and after the Election.

CCE came across severe flaws in all these areas before, during and after Parliamentary Elections-2019. Reports have been prepared on all these areas/themes and would be released in phases. But in "Electronic Voting [EVM/VVPATs] and its compliance with Democracy Principles", the flaws appear to be near-fatal to electoral democracy. Therefore, we are dealing with this critical issue first by releasing the report on this theme for larger public discussion. The study was mentored by Dr Sanjiva Prasad, Professor of Computer Science and Engineering, IIT Delhi in collaboration with his colleague Dr. Subhashis Banerjee, Professor, Computer Science, IIT, Delhi.

CCE's expert group reviewed the functioning of EVMs primarily on the touchstone of whether and how far their use complied with 'democracy principles' mentioned in the enclosed summary and is available in detail in the main report. In short, it insists on absolute transparency in facilitating the voter to exercise his or her choice and in ensuring that these selections are, indeed, reflected in the stored vote and counted as such – without the slightest deviation whatsoever. These principles also mandate that the voting procedure is easily understandable and verifiable by the voter and open to audit without complications even when relevant technology is utilised. There should be absolutely no scope for error or misrepresentation of the elector's choice.

The group has relied on depositions and expert opinions of several national and international experts and was informed of the reasons why even the most advanced countries do not prefer the use of EVMs during polls. Among the domain knowledge holders who submitted deposition before this CCE group were Ronald L. Rivest of the Massachusetts Institute of Technology, Cambridge, USA; Alex Halderman of the University of Michigan, USA; Poorvi L. Vora and Bhagirath Narahari of George Washington University, USA; Alok Choudhary of North-western University, USA Sandeep Shukla, Professor, Computer Science and Engineering, IIT Kanpur; Douglas W. Jones of the University of Iowa, USA; Nasir Memon of New York University (Brooklyn), USA; Philip B. Stark of the University of California, Berkeley, Vanessa Teague, Associate Professor, School of Computing and Information Systems, University of Melbourne, Cybersecurity, Australia; MG Devasahayam, former civil servant; Bappa Sinha of Free Software Movement of India, Subodh Sharma of Computer Science and Engineering and of the School of Public Policy, IIT, Delhi; S Prasanna, Advocate, Delhi, Venkatesh Nayak, RTI activist,

KV Subrahmanyam, Professor, Computer Science, Chennai Mathematical Institute, Chennai, Poonam Agarwal, media-person and Anupam Saraf, Professor and Future Designer.

These experts along with Dr Sanjiva Prasad and Dr. Subhashis Banerjee of IIT, Delhi are the best brains on the subject across the globe and it would not be possible to put together another group to match this vast and varied expertise.

Content in brief

In section 1.1, the report has examined technical details and the engineering design of the current EVMs as also the stage-by-stage processes they undergo during elections. In section 1.2, the report has analysed the concerns that have been articulated by concerned citizens of errors or mischief in utilising EVMs. In the next section, no. 2, issues relating to the trustworthiness of the custody chain and post-election are all examined. The report has devoted considerable time and expertise in scrutinising the technical architecture of EVMs and the accompanying VVPATs. The ECI does not appear to safeguard against the possibilities of ‘side-channel attacks’, i.e. hacking electronic devices through electromagnetic and other methods. Even the ‘software guard extensions’ of sophisticated Intel processors have proved vulnerable to interference and tampering. Just a few EVMs can swing election results for a constituency. That the processor chip in the EVM is only one-time programmable is also in doubt. In fact, latest EVMs use the MK61FX512VMD12 microcontroller supplied by an US based multinational, which has a programmable flash memory.

Further examination is possible only when ECI makes the EVM design and prototype available for public technical audit. It is noted that none of ECI’s experts have credentials in computer security and the Commission reposing trust in many other external entities and organisations, that could lend themselves to breach of complete security. After tracking the various stages of the EVM’s movement within the election setup – before and during polls, subsequent storage, counting and declaration of results – the report opines that there are certain intervals during which the machines could be accessed without authority or tampered with.

The findings reveal that there is, indeed, no guarantee that the voter’s choice has been reflected with total fidelity in all cases and thus submits that immediate steps be taken to rectify the ECI’s current procedures, irrespective of the scale and extent of possible error or manipulation. Besides, domain experts have clearly stated that the present ‘quality assurance’ and testing strategies of the ECI certainly do not rule out scope for mischief or manoeuvring of results.

The VVPAT system was introduced later to ensure that voters were able to see and check physically paper slips that emanated from the EVMs and printers attached to them. The Supreme Court had ordered introduction of VVPAT as an additional stage to assure voters about the complete fidelity of their votes but the current procedure of voting does not sync with this objective and leaves gaps that could be manipulated. This paper trail has, for instance, been rendered ineffective as the ‘marked slips’ pop up for too brief a time for the voter to verify her/his vote before it moves away to its sealed box. Besides, the ECI refuses to cross check the tally of counting VVPAT paper-slips with electronic results on grounds of unnecessary time consumption, even though the total time taken is considerably less than the time spent in counting the traditional papers received in ballot boxes. Even though VVPAT slips of votes cast are bound to be retained for one year after polls, the ECI has destroyed these slips of the 2019 polls, leading to grave apprehensions about its bona fides. Rules regarding mandatory recount of EVM results and the compulsory counting of the VVPAT paper slips is absolutely unavoidable.

Main report as well as the Executive Summary addresses all the concerns and apprehensions in the public mind about the fairness and integrity of India’s elections and has arrived at these conclusions:

- (a) Due to absence of End-to-end (E2E) verifiability, the present EVM system is not verifiable and therefore is unfit for democratic elections.

- (b) That an EVM has not yet been detected to have been hacked provides no guarantee that it cannot be hacked. Thus, elections must be conducted assuming that the EVMs may possibly be tampered with.
- (c) In practice, it may be necessary to test more EVMs than even what the civil society and the political parties demand (30% and 50% respectively) to ensure verification and reliable ascertainment of results.
- (d) There must be stringent pre-audit of the electronic vote count before the results are declared. The audit may in some cases - depending on the margin of victory - require a full manual counting of VVPAT slips.
- (e) The electronic voting system should be re-designed to be software and hardware independent in order to be verifiable or auditable.

End-Note

The fallacy of first-past-the-post system combined with blind cum opaque electronic voting along with money and media power in elections could create a ruling establishment that would be autocratic, kleptocratic and oligarchic. We have seen this trend clearly emerging from the way the government, formed out of the Parliament election-2019, has been functioning and the way it enacts laws, propound policies and respond to genuine people's struggles and protests.

Constitution of India has high Institutions of Democratic Governance:

- ECI, mandated to conduct free and fair elections with integrity;
- Government, to facilitate this with laws and rules;
- Parliament, to enact such laws;
- Supreme Court, to ensure 'democracy principles' through oversight.
- President of India in whose name the entire system of governance operates.

All these have failed India's electoral democracy. No wonder India is now being widely perceived as a flawed and failing democracy moving fast towards autocracy and authoritarianism. It is time 'We, The People', who are the ultimate sovereign, moved in to save India's precious democracy. For this to happen the electorate needs to be informed of the way ECI is functioning and elections are being conducted.

This is what CCE has done and we place the Report before the "People of India" for discussions, debate and deliberations out of which *Deo Volente* an electoral system of impeccable integrity would emerge to take India towards a robust and vibrant democracy...

[Note: There is a detailed and overarching narrative on the context, backdrop and the functioning of CCE as well the circumstances leading to its formation at Annexure...]

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