

Election WatchX

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TECHNOLOGY & THE UPCOMING ELECTIONS

When Namibians went to the polls last year to cast their votes for the National Assembly and Presidential elections, they set a precedent on the continent by being the first Africans to use Electronic Voting Machines (EVMs).

This voting technology was introduced primarily to enhance the election process and to reduce the amount of time it takes to count and verify the results – an important consideration given the delays in the announcement of results in past elections.

The star of the 2014 election, the EVMs – to a large extent – delivered on their promise, although voter education on their use could have been more extensive to enhance voter confidence. They simplified the counting process, and helped to decrease the amount of time it took to count and announce the result – although delays were still experienced.

Although it received the bulk of the hype and a healthy dose of scrutiny in the days running up the election, the EVM was not the only technology introduced to Namibian elections. During Voter Registration, the ECN made use of **Biometric Voter Registration Kits** to electronically capture biometric voter data. The BVRKs were complemented by **Voter Verification Devices** (VVDs) onto which the entire voters roll had been uploaded for checking that those showing up at the polls were indeed registered to vote. And to communicate election results, the ECN made use of a website at **elections.na** to announce results as they came in and to display key numbers regarding the election.

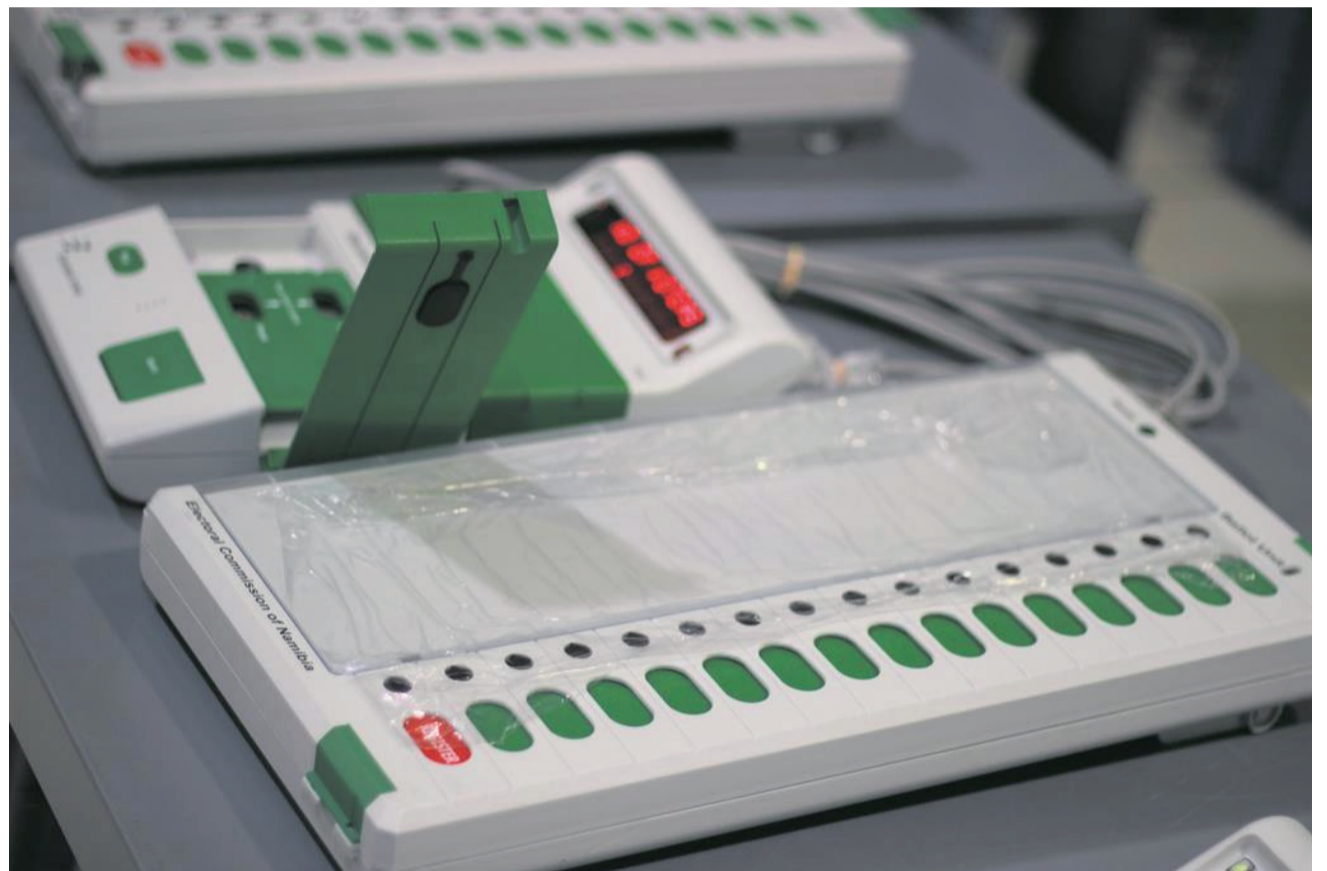
The coupling of the use of the VVD and the EVM should have translated to voters being able to get through the polling station in about 3 minutes flat – from entry to exit.

However, this was barely the case! Despite the presence of these technologies, long lines at polling stations were the order of the day, as Namibians patiently stood for hours on end to cast their votes, and waited three days longer than promised to hear the outcome of the election.

But the guilty culprit was not the new technology itself! Rather, poor use of the technology coupled with the insufficient training of election officials was to blame.

By the ECN's own admission, the training of electoral officials operating these technologies, particularly the VVDs, left much to be desired. As a result, delays were caused due to simple errors such as mistakes made in starting up the devices and/or changing battery packs, and not following the required procedures in checking fingerprints and voter registration cards, thus causing the VVDs to freeze. In many cases, this meant that the printed voters roll had to be relied upon to verify voters' details. In some instances, the length of time for a voter to get through the polling station took as long as 15 minutes – disenfranchising those who left polling stations without casting their votes due to the long waiting times.

During recent Election Watch events held for civil society organisations and the media, the ECN has noted that to ensure these problems are not repeated in the local authority



Source: The Namibian Sun

and regional council elections, it will provide specialised training for officials operating the devices, to ensure that human error is minimised, and that the correct use of these technologies is promoted.

Below is an overview of the main technologies used in the 2014 National Assembly and Presidential elections, and which will be used in the 2015 Local Authority and Regional Council elections.

THE ELECTRONIC VOTING MACHINE (EVM)

Sourced from Bharat Electronics in India, the EVM allows voters to cast their votes electronically, using the same principles applied in paper-based elections. Section 97 of the Electoral Act (Act 5 of 2014) provides for the use of these machines during elections, and the machines were customized to meet the requirements set by the law for free and fair elections. It should be noted, however, that Sections 97(3) and 97(4) of the Act – which provides for the use of a verifiable paper trail – were suspended for last year's election, and has not been honoured to date.

A major advantage of the EVM – and one of the major reasons it is now used – is that it 'simplifies and enhances the election process' and drastically reduces the amount of time it would normally take for the counting process.

Other advantages of the EVM are that they "contribute to

faster vote counting, tabulation and delivery of the final election results", that they "reduce the overall cost to operate and manage the election process" over time; that they produce "more accurate results as human error is excluded", and that help to "prevent fraud in polling stations and during the transmission and tabulation of results by reducing human intervention."² In its voter education material, the ECN notes that "the EVM is safe and reliable to use as it is a stand alone machine consisting of two interconnected components. It cannot be accessed via any other means and it does not transmit any signal or connect to any type of computer network. Additionally, it produces "Instant election results; Counting is automated; it eliminates speculation of possible rigging as it is tamper-proof; It eliminates spoiled/rejected ballots; The EVM is user friendly for the visually-impaired persons; and it is cost-effective-administrative, transportation, human resource and printing of ballot papers."³

The only difference in the setup of the EVMs, compared to the 2014 Election, is that in 2014, the same ballot paper (EVM) was used for each of the two elections (Presidential and National Assembly) across the country.

CONTINUES ON PAGE 2

1 ECN

2 ACE Electoral Knowledge Network and International IDEA.

3 ECN

ABOUT ELECTION WATCH

Election Watch is a bulletin containing electoral analysis and voter education that will appear regularly in the run up to the 2014 National Assembly and Presidential Elections. It is produced as a PDF download and as a printed newspaper insert. Election Watch is a project of the Institute for Public Policy Research (IPPR). It is produced with the support of the European Union and *The Namibian newspaper*. The content of Election Watch is the sole responsibility of the IPPR.

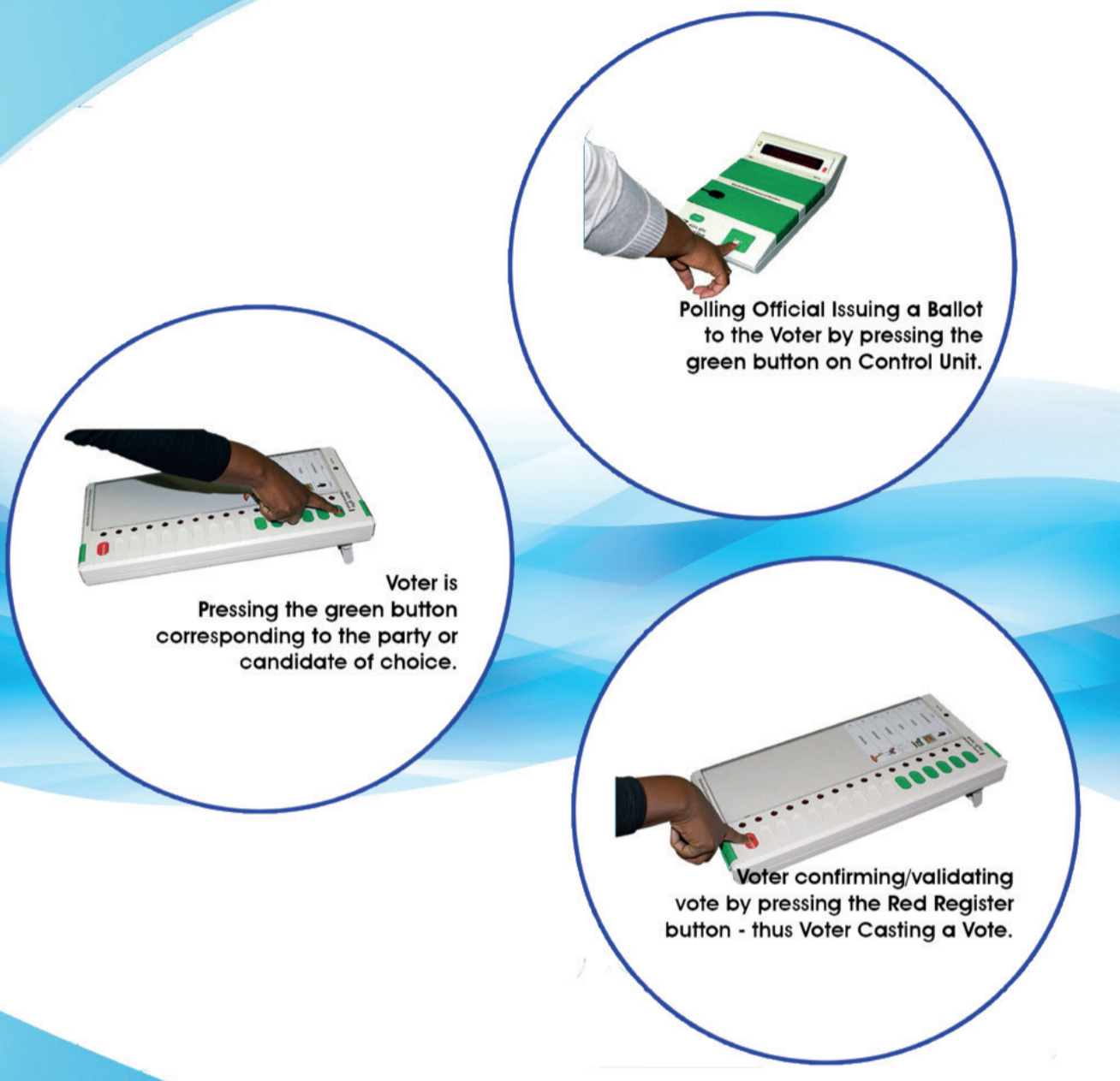
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VOTING USING ELECTRONIC VOTING MACHINE (EVM)



Source: Electoral Commission of Namibia



Megan Mouton of the ECN demonstrating a control unit

In the Local Authority and Regional Council election, however, there will be different ballot papers (EVM) for all constituencies and LAS. In constituencies that are not in local authority areas, only the RC ballot paper will be available. This will also apply in the parts of constituencies that are not in a local authority area (eg. the parts of the Khomas region that do not fall under the Windhoek municipality).

THE BIOMETRIC VOTER REGISTRATION KIT (BVRK)

The ECN "introduced the electronic capturing of biometric voter data during the General Registration of Voters in January 2014." The system allows for the Voters Register to "use fingerprint technology to check for duplicates – ensuring voter register reliability". Furthermore, this system of capturing voter data supports the use of Voter Verification Devices during the elections, with which the "accuracy of voters details can be checked", "duplicity reduced", and "statistical analysis of the election" conducted.

In her announcement of the provisional statistics of the 2014 general registration of voters, ECN Chairperson, Advocate Notemba Tjipueja said the following about the registration kits: "By its very nature, the biometric voter's registration system and its data capturing process is a precise and therefore an elaborate process. The system puts high premium on the accurate capturing of data to ensure the accuracy of the information and ultimately, the integrity of the end-product, which is the Voters' Register. Admittedly, there is an inherent slight trade-off between speed and accuracy in the system

when precise steps are involved. These include the verification of required documents, the capturing of the voters' data on the Voters Registration Kits (VRK), taking of photographs, signature and finger prints, the verification of captured voter data and finally, the issuing of the voters' cards."

THE VOTER VERIFICATION DEVICE (VVD)

Following the registration of voters and the cleaning of the Voters Register, the entire Register is uploaded onto the VVD. Manufactured in China, the VVDs have an easy to use, user-friendly interface; and are equipped to conduct fingerprint scans and to read barcodes (as would be found on the Voter ID). "It can be used for various solutions and environments, like the Police to verify citizens, Traffic Police to check drivers, Voter Verification, etc"; and is "capable of being online with a 3G connection".⁴

Some of the major advantages of the VVD are the savings in the amount and cost of paper used; the speed with which the verification can take place (particularly when election officials know how to use the devices); the elimination of fraudulent voters; the ability to pick up on duplicate voters during the audit process; and the valuable statistics that can be gained from turnout figures, in order to better target voter education initiatives in the long term.

The verification of voters takes place in four steps⁵:

- 1 At each election station an election official will manage the voter data contained on the handheld device
- 2 A voter will walk up to the official and will be verified on the device (NB: a printed Voters Register for the constituency also available at each polling station)
- 3 The following information can be used to confirm the voter against the existing database on the handheld:
 - Voter ID number (scanned or typed)
 - Fingerprint is retrieved and matched
- 4 On successful verification the potential voter to proceed to the ballot box and cast a vote.

ELECTIONS.NA

Another technological advancement that the ECN introduced in the 2014 election was the website – elections.na – where the Commission communicated the outcome of the election as verified results came in.

According to the ECN, "We peaked at 19,200 active connections, run up was slow with an average of 1500 active connections, peak was from just before the results were released. After the results were announced, the average was 285 active connections average any time per hour."

However, the website was criticised for not giving full information about the results (it mainly used percentages rather than actual voting figures). It also went offline a few weeks after the election and is therefore no longer a resource that can be used for checking past results.



The Voter Verification Device (VVD)

⁴ ECN, 2015.

⁵ ECN, 2015.

WHAT ELECTION OBSERVERS HAD TO SAY ABOUT THE TECHNOLOGIES USED IN THE 2014 NA & PRESIDENTIAL ELECTION:

SADC ELECTION OBSERVATION MISSION (EOM)

“The 2014 Presidential and National Assembly elections in Namibia were held against the backdrop of the use of Electronic Voting Machines (EVMs). The period of our engagement in Namibia then presented an optimal opportunity for international observers to assess the use of the EVMs. The SEOM further noted that the relevant legal provisions on the use of the EVMs were put in place, but the Electoral Act No. 5 of 2014, came into force with the exclusion of the Voter Verifiable Paper Audit Trail.”

“On Election Day...the delays in (the opening of) a number of polling stations were generally due to polling officials’ lack of clarity on the use of the EVMs, i.e. operator’s error as well as the EVMs’ failure to operate and consistent breakdown of the voter verification devices in some cases.”



An EVM consists of a control unit and a ballot unit

AFRICAN UNION ELECTION OBSERVATION MISSION (AUEOM)

“The AUEOM however notes that concerns were raised by stakeholders on the level of consultations on the constitution amendment process. The timing of the coming into force of the new Electoral Act less than two months before the elections also raised concern by stakeholders. In addition, some stakeholders expressed concerns with the suspension of the provision of the Act that regulates Voter Verifiable Paper Audit Trail (VVPAT) for electronic voting machines.”

“The late opening was generally due to pre-opening procedures, the pre-testing of EVMs in particular, taking longer than anticipated, difficulties with the card scanners as polling staff were not fully familiarised with the technology.”

“The use of electronic voting was largely successful in all observed polling stations, with a few instances of machine malfunction. Although most voters were using the EVMs for the first time and they often required instructions from polling staff, they were generally comfortable with using the EVMs. The AUEOM noted with satisfaction the simplicity of the design of the EVMs.”

“In 70% of the stations visited, it took voters more than 3 minutes to complete the voting process. The slowness was mainly due to:

- The voter identification system, which required both the scanning of the card and finger printing. In some cases, voters had their five fingers scanned;
- The recording of voters’ card details and signatures before the issuing of each ballot;
- Interruptions due to equipment malfunction, especially the identity verification machines and the slow response of the field technical teams.

“The AUEOM encourages the ECN to: a. Consider simplifying polling station procedures, namely the voter identity verification process and recording of voter’s presence to ensure that all procedures can be completed within the stipulated voting hours... c. Ensure that the training of staff on the use of technology in elections is continuous to further improve their ability to operate the equipment.”

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SADC-ELECTORAL COMMISSIONS FORUM (ECF)

“Most polling stations had challenges with the digital verification process of the voters and in some instances the manual voters roll was used.”

“Most voters were not fully conversant with the use of Electronic Voting Machines (EVM).” “Presiding Officers seemed knowledgeable on the polling procedures related to the EVM.”

Recommendations specific to EVMs:

- Intensify voter education on EVMs;
- Display of posters on EVMs at polling station.
- Ensure thorough training of polling staff on pre poll testing of EVMs.

COMMONWEALTH ELECTION OBSERVATION MISSION

Recommendations to the ECN regarding technologies used:

- Civic and voter education on the use of electronic voter machines should have commenced at an earlier timeframe. It should also be strengthened considerably in terms of content, stakeholder engagement and outreach to allow more time to achieve greater impact, in particular among the elderly and rural communities.
- That there should be a back-up system for the voter verification devices to avoid the delays that were witnessed.
- Voter education on the use of EVMs should be improved.

RESULTS OF THE LOCAL AUTHORITY AND REGIONAL COUNCIL ELECTIONS WILL BE ANNOUNCED IN THIS WAY:

- Presiding Officers will count and announce results at Polling stations
- As soon as the votes of all polling stations in a constituency have been counted and the number of votes have been determined in the constituency, the Returning Officer must preliminarily determine the candidate for the constituency to be declared as a member of the regional council concerned.
- As soon as this process is complete, the Returning Officer for the constituency must inform the CEO, who must ensure the determination is correct.
- The CEO must then inform the Chairperson of the Commission to make a final determination and announce in the prescribed manner the result of the election concerned by:
- Making known the total number of votes counted in the constituency; and
- In respect of each candidate, the number of votes recorded for the candidate; and
- Declaring the candidate to be duly elected as a member of the regional council concerned with effect from the day on which the election took place.

SOURCE: Presentation by Theo Mujoro, Director of Operations, ECN

WHERE'S THE PAPER TRAIL?

The lack of a Voter Verified Paper Audit Trail (VVPAT) to accompany the EVMs in the 2014 National Assembly and Presidential Elections was at the centre of the criticisms lodged against the EVM in that election.

Section 97(3) of the Namibia's Electoral Act provides for the use of a paper trail, stating that EVMs are "subject to the simultaneous utilisation of a verifiable paper trail for every vote cast by a voter, and any vote cast is verified by a count of the paper trail". Part 4 of the same section goes on to state that in the incidence that the EVM and paper trail results do not match, "the paper trail results are accepted as the election outcome for the polling station or voting thread concerned".¹

However, both these clauses were suspended for the 2014 National and Presidential Assembly elections, as well as for the upcoming Local Authority and Regional Council elections, as the logistics were not in place to ensure their use. In fact, it was on these grounds that the first challenge in the Electoral Court was heard, when the Rally for Democracy and Progress, the Workers Revolutionary Party, and the African Labour and Human Rights Centre and its director August Maltezky attempted to have the elections postponed due to the lack of a paper trail. They lost the challenge.

Essentially, the VVPAT is "a printer-like apparatus is linked to the EVM. When a vote cast, a receipt is generated showing the serial number, name and symbol of the candidate. It confirms the vote and the voter can verify the details. The receipt, once viewed, goes inside a container linked to the EVM and can only be accessed by the election officers in rarest of rare cases. The system allows a voter to challenge his or her vote on basis of the paper receipt for the first time. As

per a new rule (in the Indian electoral laws), the booth presiding officer will have to record the dissent of the voter, which would have to be taken into account at time of counting."²

The VVPAT is important for various reasons. Importantly, it assures the voter that the vote that he/she cast was correctly recorded by the EVM by "providing feedback to voters, allowing them to 'verify that their votes are cast as intended'. An independent verification systems for EVMs, the VVPAT 'can serve as an additional barrier to changing or destroying votes', and helps to build voter confidence in the system being used, and in ensuring the integrity of the election. In a judgement that called for the introduction of VVPATs to Indian elections (where EVMs have been used for several years now, India's Supreme Court ruled that "we are satisfied that the paper trail is an indispensable requirement for free and fair elections. The confidence of the voters in the EVMs can be achieved only with the introduction of the paper trail. EVMs with VVPAT system ensure the accuracy of the voting system. With an intent to have fullest transparency in the system and to restore the confidence of the voters, it is necessary to set up EVMs with VVPAT system because vote is nothing but an act of expression which has immense importance in democratic system."³

ECN Director, Professor Paul Isaak, recently confirmed that there would be no paper trail in the upcoming election, but noted that the Commission is currently engaging Bharat Electronics (the EVM's manufacturer) to design and manufacture a VVPAT compatible with the EVMs currently in use by the ECN.

A local newspaper recently reported that "the ECN has been in negotiations with

Bharat Electronics Limited (BEL), the Indian manufacturer of the machines, since the beginning of the year to find out if a VVPAT would be compatible with them. BEL in August confirmed that the machines supplied to Namibia are indeed compatible, and once the ECN gets the go-ahead from the Office of the Attorney General, the Tender Board and other stakeholders, BEL will design and manufacture the VVPAT. BEL indicated that it would take about nine months to supply the system, but Isaak said it would take at least a year to finalise the entire process."⁴

As IPPR has noted in the past, in the absence of a paper trail, it is critical that voter confidence in the electoral system is ensured by maintaining a high level of integrity throughout the election, and that broader security components of the electoral cycle in the pre-election and election stages are well observed.

LESSONS FROM INDIA (EXCERPT FROM ELECTIONS.IN)

Why the Voter-Verified Paper Audit Trail (VVPAT)?

Bringing transparency in electoral process and preventing malpractices is one of the formidable challenges that India has been trying to tackle for years. Even after the transformation from ballot paper system to electronic voting machines, not much headway could be made to rule out manipulation of poll results. As experts and individuals from the political fraternity started raising concerns about the vulnerability of EVMs, the government felt the need to further delve into the issue and introduce a more viable option.

History behind VVPAT System in India

During an All Party Meeting in 2010, political parties floated the suggestion of incorporating VVPAT along with the EVMs. Based on the suggestion, an Expert Committee was called into action to examine the possibility of a paper trail. The election commission also asked Bharat Electronics Limited (BEL) and Electronics Corporation of India Limited (ECIL) to create a prototype of VVPAT system.

As per the Technical Experts Committee's recommendation, the system was field tested across five states in July 2011. Years later, the Supreme Court directed the Election Commission to introduce the VVPAT system during the 2014 general elections to ensure free and fair polls. BJP leader Subramanian Swamy has been advocating the use of such a device and it's on the basis of his plea that the court ordered the Commission to ensure that EVMs have a paper trail system. Moreover, there had been a spate of protests over the vulnerability of EVMs.

The decision to introduce VVPAT is also governed by the objective of ruling out any possibility of malpractices and satisfying the voters.

Introduction of VVPAT System in India

The Election Commission has been planning to introduce VVPAT system since 2011 when it started exploring the possibility of conducting first field trials. Although the system was first experimented with during the Nagaland by-elections in 2013, Mizoram was the first state to introduce VVPAT on a large scale. It was used in 10 assembly constituencies of Aizawl district. On a national level, the system was introduced in 8 of 543 parliamentary constituencies during the 2014 general elections. It was used in 516 polling stations across eight states.

Future Plans for use of VVPAT system in India

Going by the overall positive feedback from the voters, the election commission is now keen on increasing the usage of VVPAT devices in the forthcoming assembly elections. Since the device is compatible only with those EVMs manufactured after 2006, the commission is reportedly trying to achieve "all India VVPAT coverage" by 2019 elections.

Source: elections.in

See more at: <http://www.elections.in/political-corner/what-is-vvp-at-voter-verified-paper-audit-trail/#sthash.mDG2LVEx.dpuf>

Source: Press Information Bureau, Government of India

- 1 Electoral Act No. 5, 2015.
- 2 Government of India, Press Information Bureau, 2014
- 3 Supreme Court of India, 2013. Civil Appeal No. 9093 of 2013 – Dr. Subramanian Swamy (Appellant) versus Election Commission of India (Respondent). Judgment.
- 4 Sasman, Catherine. New Era 01/10/2015. 'No paper trail for elections'. Retrieved from <http://www.namibiansun.com/politics/no-paper-trail-for-elections.85958>



WHAT IS THE IPPR?

The Institute for Public Policy Research was established in 2001 as a not-for-profit organisation with a mission to deliver, independent, analytical, critical yet constructive research on social, political and economic issues which affect development Namibia. The IPPR was established in the belief that development is best promoted through free and critical debate informed by quality research. The IPPR is independent of government, political parties, business, trade unions and other interest groups and is governed by a board of directors consisting of Monica Koep (chairperson), Graham Hopwood, Ndiitah Nghipondoka-Robiat, Daniel Motinga, Justin Ellis and Michael Humavindu.

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