PRELIMINARY OBSERVATION REPORT

KICTANet Technology Observer Mission During Kenya's 2022 General Election

29 AUGUST 2022

Table of Contents

Executive Summary

This report presents a summary of the key findings of KICTANet's election observation mission during Kenya's general election held on August 9, 2022. During the election, the Independent Electoral and Boundaries Commission (IEBC) cleared 16,098 candidates to compete for six main elective positions across the country's 291 constituencies in 47 counties. KICTANet observed elections in various polling stations in 21 counties, focusing on technology aspects.

Several encouraging and progressive steps were noted in the use of technology by the IEBC, and by the public. In the polling stations observed, there were adequate Kenya Integrated Election Management System (KIEMS) kits supplied, with clerks fairly competent in their use, and technical support personnel available to remedy challenges. Further, a majority of the voters were identified biometrically, and a minority through an alphanumeric search. In addition, most of the presidential results forms (34A) were transmitted electronically and are accessible in the IEBC [public portal.](#)

Nonetheless, several challenges related to election technology were noted. These included poor internet network coverage, staff capacity gaps in handling KIEMS kits, late training of election clerks, failure of some KIEMS devices, delays in result transmission, and non-identification of voters biometrically using KIEMS, among others. In the aftermath of the elections, misinformation and disinformation on social media that was widespread before the election continued, and largely focused on the results of the election. This could have partly been due to the fact that the IEBC portal did not display any text results or statistics, and only had results for the presidential election, leaving out the results of the other 16,094 candidates who vied for the other five elective positions. Moreover, allegations of hacking of IEBC servers were made, which the Commission denied.

From the 2022 general election, it is clear that there is still great potential to leverage on technology to enhance the simplicity, efficiency, accuracy, verifiability, transparency, accountability, security, and integrity of the entire electoral process as required under the law. However, there is still great suspicion, fear, and concern over the susceptibility of election technology to manipulation, which means obstacles will need to be overcome in order to build trust and confidence levels in election technology use. Ultimately, the success of any election technology will depend on the choice of technology, the preparation prior to its deployment, and the execution during an election.

IEBC could benefit from greater engagement and collaboration with stakeholders, especially within the technology sector, to encourage innovation in electoral technologies and to explore an end-to-end digital election in the future. In the meantime, aspects such as the inclusion of a text tally in the KIEMS kit could be useful in verifying the results in the scanned forms. The KIEMS should also be configured to scan and transmit all the result forms (both form and text) for all the elective positions. In addition, the results and statistics, such as on turnout, from the KIEMS kit for all polling stations should also be displayed on the public portal in simple, open, and interactive formats to enable all voters and election stakeholders to access the election information.

Furthermore, the success of technology is hinged on comprehensive training provided to election staff, early preparation and deployment, and simplified software interfaces for KIEMS devices and other technologies adopted. Moreover, public communication, voter education and awareness programmes and responses to misinformation and disinformation on elections by the IEBC should be regular, consistent, proactive, and comprehensive. Finally, beyond technology, the IEBC will need to do more to address its perceived integrity deficit, redeem its impugned reputation, and build public trust and confidence in its capacity to conduct free, fair, and credible elections, powered by technology.

1.   Introduction

The Kenya ICT Action Network (KICTANet) is a multistakeholder think tank for ICT policy and regulation. The network acts as a catalyst for reform in the ICT sector and is guided by four pillars: policy advocacy, stakeholder engagement, capacity building, and research. KICTANet's guiding philosophy encourages synergies for ICT policy-related activities and initiatives. As such, the network provides mechanisms and a framework for continuing cooperation, engagement and collaboration in ICT matters among the technical community, academia, media, development partners, civil society and Government.

1.1   Background

KICTANet has had a long working partnership with the Independent Electoral and Boundaries Commission (IEBC). It deployed observers during the 2013 and 2017 general elections, with a specific focus on the technology components of the elections. The reports from the KICTANet observation missions have progressively contributed towards the implementation of technology in Kenya's elections.

In July 2022, KICTANet deployed a voluntary 90-person election observer mission in 21 counties spread across the country to observe Kenya's general election held on August 9, 2022. **KICTANet's Observation Mission focused on technology preparedness, the voting process, transmission, and post-election processes.** Technology was adopted for biometric voter registration, voter identification, the transmission of results, and dissemination of results. The purpose of the election observation mission was to provide a credible and impartial assessment of the electoral technology component and, where relevant, make recommendations aimed at improving future electoral processes.

Prior to the 2022 election, KICTANet published [weekly articles on tech preparedness](#) for elections; paid a [courtesy call to IEBC commissioners](#); met with the [European Union Election Observation](#) Mission, the Commonwealth Observer Mission; the Carter Centre Mission, and the Open Society Initiative. KICTANet also convened the Kenya Internet Governance Forum ([Kenya IGF](#)), and held several public engagements with [Meta Platform Inc](#), [Twitter](#), and Tiktok to highlight the emerging concerns on social media use and the elections; conducted a [moderated discussion](#) with the public on election preparedness and their expectations for the elections and shared the same with the IEBC; participated in a panel session during the [2022 National Election Conference](#) to highlight concerns around technology use during the election; [lauded Kenya's decision not to shut down](#) the Internet; and as part of the [#KeepItOn](#) Coalition, published an open letter calling on the president not to impose an [Internet shutdown](#) during the election.

KICTANet trained its observers on the election process and the technology components. It also partnered with [Access Now](#) to conduct further training on internet measurements such as ([OONI Probe](#)), the use of VPNs and other digital security tools in case of internet shutdowns (such as [TunnelBear](#), [Psiphon](#), [Tor](#)). Furthermore, it published a [pre-election assessment report](#) which

documented its key findings on the technology aspects of the election and made several recommendations to the IEBC and other relevant stakeholders.

1.2   Methodology

KICTANet was accredited by IEBC as a mission observer. The team sought to provide assessment through direct observation of the technology component of the electoral process. To this end, a questionnaire was developed covering technology-related aspects of the elections such as the preparedness of the IEBC; election day opening of polling stations, voter identification process; election polling stations closing; election tallying centres operations; the availability of infrastructure; and social media use.

All the observers were trained on how to use the tool. By the end of the observation period, 549 responses were received from the 90 observers in 21 counties across the country. The choice of counties and polling stations was based on the locality of the observers. Data privacy and protection protocols were adhered to according to the KICTANet policy on Data Protection. The data was cleaned and analysed using the MS Power Bi and MS Excel packages.

The limitations of the mission included: limited financial and human resources, inability to visit all 46,229 polling stations, late observer accreditation; and limited access to information on the election, in particular in the preparatory phases.

2. Main Findings

2.1 Pre-Election

For the 2022 election, the IEBC used a new vendor, Smartmatic International Holdings BV procured in November 2021, to supply its election technology known as the Kenya Integrated Election Management System (KIEMS). The Commission utilised 55,100 KIEMS kits in the 46,229 polling stations across the country, including six backup kits provided per ward. IEBC procured 14,100 new KIEMS kits and updated the software in the 41,000 KIEMS kits for use in the 2022 elections.

Further, the IEBC recruited and trained at least 418,000 temporary election officials in the course of May and August 2022. These officials included: 47 Deputy County Returning Officers, 290 Deputy Constituency Returning Officers, 52,481 Presiding Officers, 52,481 Deputy Presiding Officers, 389 Logistics Officers, 5,827 Support Electoral Trainers, 580 ICT Clerks, 302,860 Polling Clerks, 47 County-based Voter Educators, 290 Constituency Voter Educators, and 2,900 Ward-based Voter Educators.

There was a notable improvement in IEBC's strategic communication with stakeholders through periodic briefings and social media updates in the final 10 days towards the election. IEBC also provided an online portal (verify.iebc.or.ke) and an SMS service (Code 70000) to enable voters to verify their registration status and polling stations, both of which implemented a form of two-factor authentication.

It is also worth noting that the national identity card and passport numbers contained in the printed register displayed at polling stations were redacted. Further, an independent audit of the register of voters conducted by KPMG and a redacted version released to the public indicated the key findings of the audit and the measures by IEBC to address the concerns raised and recommendations made.

Challenges Observed

The following are some of the key challenges observed:

1. The voter education programmes, especially on IEBC online platforms, started late, almost two weeks before the election. The information was scanty and not widely disseminated to the public.

2. The independent audit of the voter register was completed by KPMG in June 2022, and only a redacted version of the report was released to the public on August 2, 2022. The report highlighted grave findings regarding the register of voters, including 970,352 records with at least one exception, which affects the rights of data subjects and present compliance challenges from a data protection perspective. IEBC indicated in its response that it could not implement all the recommendations given the time constraints. Worth mentioning is that it is not independently verifiable whether IEBC implemented the changes it highlighted as done.

3. The IEBC [indicated](#) that it had not conducted the annual audit of the KIEMS technology in the past due to budgetary constraints. However, it pointed out that the audit would be conducted, but it is not clear whether the same was concluded before the election to provide independent assurance of the integrity and functioning of the KIEMS technology.

4. The procurement of the technology vendor was done late, and critical deadlines stipulated under the law were missed.

5. A court decision affecting the use of [the manual voter register](#) in the election came hours before the polls. The communication of the decision came late and caused confusion in the process of conducting biometric voter identification, which was not uniformly applied across the country.

6. The IEBC opted not to electronically transmit results forms for all other elective seats and also removed the option to key in the text contained in the result forms in the KIEMS kit for transmission to the tallying centres. This eliminated an opportunity to have all the results of the elections efficiently transmitted and displayed to the public.

7. The training of election clerks was conducted less than five days before the election day. This means the polling clerks did not get sufficient time to acquaint themselves with the KIEMS kits and their operations.

8. Whereas IEBC published an online portal for the forms, the URL ([forms.iebc.or.ke](#)) for the forms was not well-communicated to the public prior to the election.

9. Access to the SMS service (70000) was charged at KES 10, yet the online service was free, which disenfranchised voters without access to funds, data bundles or smartphones.

10. There were challenges in accessing the observer accreditation management system portal (https://ams.iebc.or.ke) and delays in printing and accessing observer accreditation badges from IEBC, with many only accessed days to the election.

11. The process of replacing a KIEMS kit if it gets stolen or malfunctions is not properly stipulated. The incident at Moyale and Marsabit where the kits were stolen while being charged is an example.

12. IEBC came under criticism [when foreigners from Venezuela](#) were arrested at the Jomo Kenyatta International Airport (JKIA) with voter materials that were not declared as per the law. Despite the IEBC Chairman's assurance, there was a lot of speculation on social media over the role of foreign nationals and the manipulation of election technologies.

2.2   Polling Day

Each polling station observed received at least one set of KIEMS kits, which included the tablet, chargers, and power banks. Most of the polling stations opened on time or within 30 minutes of the official opening time of 0600 hours with the KIEMS kits and power banks charged and operational. Most of the clerks and presiding officers observed were fairly conversant with the use of the kits,

and technical teams were able to respond to address the challenges faced in the polling stations, including replacing faulty devices. Furthermore, most of the stations kept the tablet constantly connected to the KIEMS tablet to enable the device to function for longer hours.

Access to the KIEMS Kit tablets was enabled through passwords in the custody of the Presiding Officers. Most of them were noted to be conversant with the process of initiating voting by scanning the printed QR codes on the cover of the printed register. Further, most of the KIEMS kits were able to connect to both networks depending on the SIM in the device, such as Safaricom, Airtel, or Telkom. In addition, access to electricity, mobile telephony, mobile money services, the internet and social media was largely unrestricted before, during and after the election.

Moreover, a majority of the voters were identified biometrically through their fingerprints, with others being identified through the alphanumeric search and the supervisor validation form filled in by the Presiding Officers. The washing of hands with soap or hand sanitiser and the wiping of the biometric scanner aided faster identification by the device. Officials also attempted, in some cases, all the fingers before transiting to an alphanumeric search. During polling, the elderly and Persons living with Disabilities (PWDs) were assisted by the Presiding Officers in the presence of agents and observers. Also, in some polling stations, observers and party agents were allowed to verify and even take photos of the statistics shown on the KIEMS tablet during the opening and closing of polls.

Challenges Observed

The following are some of the key challenges observed:

1. Several polling stations opened as late as 0800 hours due to the late dispatch and delivery of election materials from the constituency centres to the polling stations. These delays affected preparations at the polling stations for voting on election day, as in some cases, materials arrived as late as 0200 hours on polling day. Also, it affected turnout as some voters gave up after queuing for long periods of time awaiting polling stations to open.

2. The other causes of delays in opening voting polling stations observed included: staff not being ready, being slow, or the KIEMS devices not working as expected. In some cases, Presiding Officers could not recall the initialisation process, or had forgotten their passwords, some of which did not work.

3. Some of the KIEMS tablets could not connect to any network, set the correct time, or were generally slow, overheated, did not function as expected, or completely failed to start. Where the devices failed, getting technical assistance and replacement devices took long, which affected the voting process.

4. Some of the polling staff were not all conversant with the use of the KIEMS tablet, especially with regards to the flow of the software user interface, prompts and menus, or how to start or diagnose malfunctions. This could partly be due to the fact that the device software is not user-friendly, intuitive, or simple to use. Also, there was no printed manual or guide on how to operate or troubleshoot the KIEMS devices at the polling stations.

5. There was no information displayed at the polling stations on how to access the SMS shortcode or the voter registration verification portal. The voter register was posted at the entrance of the polling station, which meant that many voters lined up in the wrong queues as they could not establish the correct station. In addition, the order in which the names were displayed on the voter register confused some voters about which queues to line up in. As a result, some voters were not able to identify their polling stations, and a significant number went back after failing to find their names on the printed sheets, while others found that they had been moved to other stations that were very far away.

6. In the course of polling, some of the KIEMS tablets and power banks ran out of power quickly, partly due to the fact that some of these devices are old. This was more severe in areas where there was no electricity to aid the charging of devices. Some stations were able to share power banks or were assisted by party agents with their personal power banks.

7. There were challenges with biometric identification, especially among casual labourers, farmers, and elderly people whose fingerprints could not be recognised by the KIEMS devices.

8. Voter identification took a long time, in some cases taking more than 10 minutes per voter, especially at the beginning of voting. Also, longer periods (around 20 minutes) were spent where voters were not identified biometrically and complementary mechanisms had to be used.

9. There appeared to be no clear or uniform protocol applied at polling stations on the number of attempts to scan fingers before attempting an alphanumeric search. Also, some clerks were not clear on the process of conducting the alphanumeric search, i.e., by scanning the identity card, inputting the identity card number and when to take a photo of the voter with the identity card next to their face.

10. Some false positives were identified where voters' fingerprints were positively recognised by the biometric scanner but the biometric register showed the identity and description of different people from different polling stations.

11. Twitter experienced an [international outage](#) on August 9, 2022, which was addressed. Also, according to the measurements under the [OONI](#) web connectivity test, 1,599 anomalies were detected in the 52,420 measurements made between August 7 and August 15, 2022. The main website categories affected were: anonymization and circumvention tools (204), news media (173), hosting and blogging platforms (163), government (132), political criticism (136), social networking (116) and LGBT (109).

12. A KIEMS Kit for Uran Primary School in Moyale was reported as [stolen](#) while it was being charged.

13. There was low voter turnout and apathy towards the election as at least 35% of the registered voters did not turn up to vote, compared to 20.49% and 14.9% in the 2017 and 2013 general elections respectively.

2.3   Tallying and Result Transmission

Most of the polling stations closed within 30 minutes of the official closing time of 1700 hours. Upon the close of voting, the presiding officers were able to close voting on the KIEMS kit application and showed the agents and observers the summary statistics from the device on voter identification and turnout at the station. The observers and party agents were given the opportunity to verify and even take photos of the screen of the KIEMs Kit. The counting and tallying process went on smoothly, and the results were entered into the forms.

For the August 2022 presidential election, IEBC made changes to the KIEMS kit RTS application to only capture and transmit images of only the presidential election results (Form 34A). During transmission, most of the devices were able to connect to the network and quickly transmit the result forms after one or two attempts. After transmission, the forms were accessible on the online portal after two to three hours from the time of transmission. Subsequently, forms 34B and 34C were uploaded to the portal.

On the voting day, Internet connectivity was fairly stable in many parts of the country and result forms were transmitted to the IEBC online portal (forms.iebc.or.ke). The IEBC also consolidated 46,201 of 46,229 forms 34A into one compressed 10 GB file for download.

Most of the tallying processes continued late into the night, and adequate security personnel were provided to every polling station and tallying centres. Every Polling station was provided with a battery-powered spotlight which could be charged using solar or electricity for use at night. Where there were challenges with the KIEMS kits, they were resolved by either restarting the devices, recalling the process or passwords, running the diagnostic application, or getting technical assistance.

Challenges Observed

The following are some of the key challenges observed:

1. Several polling stations were closed between 1730 - 2030 hours to compensate for the time lost due to the various challenges faced during the election. The main reason for the late closure was the failure, or challenges with the KIEMS kits, which delayed opening and voting during the day. Other reasons included the late arrival of election materials, high voter turnout towards the closing of polls, and the presence of voters in the queue after the close of polling.

2. During transmission, the main challenges with the KIEMS kits included the devices running out of power, not connecting to the network, faulty devices, and a lack of replacement devices. In addition, some staff had forgotten the process and passwords for initiating result transmission or misplaced the document with the QR code to initiate transmission.

3. The online portal was designed to only host result forms (Form 34A) for the presidential election and not for any other elective position, which presented a challenge in accessing the election results forms for the remaining five positions and relating to 16,094 candidates. This presented a lacuna of information as there was limited information on the outcome of the five positions, and contributed to the misinformation on the results on social media, as the fake news could not be independently verified or ascertained from a credible source.

4. The IEBC did not provide a public portal to visualise and display text results, despite displaying some visualised results at the national tallying centre. Other than a general summary for the nation, the Commission did not provide summary statistics of voter turnout for each polling station as reported by the KIEMS kits to the public.

5. KICTANet [analysed](#) Form 34B's uploaded on the online portal prior to the announcement of the results. It found that several forms had errors, such as varying numbers of registered voters (32 forms) and computational errors in total valid votes cast (17 forms). Also, Form 34B's for constituencies such as Fafi, Isiolo South, Igembe North, Tetu, Cherangany, Kipkelion West, Bomet Central, Mumias East, Ikolomani, Luanda, Mt. Elgon, Sirisia, Kanduyi, Muhoroni, Karachuonyo, Suba South, Bonchari, Nyaribari Masaba, and Dagoretti North did not include the total tally.

6. Other Forms 34B on the portal lacked information about the results. These included Forms 34B for Kisauni (blurred form), Kilifi North (only signature page uploaded), Tigania East (missing total row), Narok West (only signature page uploaded), Suba South (missing total row), Starehe (uploaded form was for Lagdera) and Kamukunji (Form 35B for MP uploaded and later replaced).

7. There were significant delays in the transmission and uploading of the majority of Forms 34A and 34B on the online portal several days after the completion of the election. Indeed, three weeks after the elections, there were still 28 Forms 34A missing from the IEBC online portal as only 46,201 of 46,229 (99.94%) were on the portal.

8. KIEMS logs and ICT processes such as the back office operations of the IEBC were not accessible to observers. Also, there was minimal access to KIEMS logs and ICT processes during verification for observers at the National Tally Centre.

9. Poor internet access, especially in remote areas, resulted in delays in the transmission of results, and for example, some parts of Kilifi and Kitui had internet connectivity challenges.

10. Several election officials were exhausted after having worked long hours from the days preceding the election to the tallying and handover processes at the constituency, county and national levels.

2.4   Post-Election

During the process, media outlets carried out their functions freely, with some conducting parallel tallying of election results. They reported on the outcome of the elections at various polling stations and tallying centres. The media houses such as Nation, Standard Media, Citizen and BBC also visualised the results of the presidential elections in charts, and also indicated the composition of various coalitions' representation in Parliament and at the county level. Furthermore, they compared the performances of presidential candidates at the constituency, county, and national levels.

Additionally, accredited media, foreign missions, political party agents, and observers were granted access to the polling stations, tallying centres at the constituency, county, and national

levels. Also, IEBC continued with public engagement through their social media platforms and frequent press briefings, which provided clarity of the results and helped calm the tension and anxiety as Kenyans awaited the outcomes of the polls.

Social media platforms (Facebook, Instagram, Twitter, and TikTok) shared relevant information on the elections, created awareness of misinformation, and took steps to stop the spread of misinformation, disinformation and hate speech during the election. There was a significant improvement in the engagement and action by the platforms on problematic content in the 2022 Kenyan elections as compared to the previous elections. Also, Kenyans used the platforms to fact-check and verify the information that was being shared online.

In addition, the National Cohesion and Integration Commission (NCIC) and other stakeholders, e.g., the Uwiano platform, conducted peace campaigns (#ElectionsBilaNoma, #LetPeaceWin and #PendaJirani) and cautioned politicians on hate speech. The IEBC also disseminated information and updates on its website and social media handles, including on how the public can tackle misinformation. Further, Amnesty International Kenya, KICTANet, SDGs Kenya Forum, and Fumbua Campaign issued a [statement](#) on August 10th decrying the rise of misinformation and disinformation online after the election.

Challenges Observed

1. There was a significant increase in misinformation, disinformation, and hate speech online, circulated on various social media platforms and across the platforms. Notably, these related to misleading posts announcing the results and winners before the conclusion of voting, tallying, and the official announcements of results for presidential, gubernatorial, and parliamentary positions. These posts made it difficult for the public to discern the truth or facts about the outcome of the elections or to independently verify the information.

2. Social media became toxic and was a key battleground for 'electoral violence' during the election. Prominent social media personalities, key influencers, and supporters allied to the various political coalitions were at the forefront of the online conflict characterized by the coordinated dissemination of propaganda, inflammatory, inciting, and hate speech content. Their posts and reactions by their audiences were characterised by bragging, cheering, taunting, jeering, criticism, emotive and insensitive comments, abuses, slurs and other inciting content geared towards spiking online conflict.

3. Social media users engaged with the handles of these personalities, and utilised the comment sections on Facebook, replies to or quotes of tweets, and Facebook and WhatsApp groups to share content targeting, attacking, or abusing specific communities such as Kalenjins, Kikuyus, and Luos, who at various times trended on platforms such as Twitter. The content shared included text, audio and video clips, altered images, images with misleading quotes of prominent personalities, cartoons and caricatures of candidates etc.

4. Media outlets that were conducting tallying of the election results for the presidential candidates stopped their parallel tallying processes. This led to more uncertainty over the

results, and further divided the public on which outlet had genuine results due to the differences in their tallies, prior to the announcement of the official results by the IEBC.

5. Responses by key stakeholders on misinformation, disinformation and hate speech on social media were poor. For example, some media stations did not immediately verify and fact-check election-related content that was circulating online; the IEBC took too long to respond to misinformation online; the NCIC took little action on problematic content online; and social media companies took too long to respond, or only took action on a small fraction of the flagged problematic content and accounts on their platforms. Also, no reports of warnings, arrests or investigations relating to such problematic content online were made public by the relevant and responsible state agencies.

3.   Conclusion and Recommendations

KICTANet Mission Observers visited several polling stations in 21 counties and observed the use of technology prior to the election, on election day, at the close of polls, and in the post-election period. Generally, there was a significant improvement in the manner in which the election was conducted. However, there were some challenges which affected the KIEMS kits and the use of social media. In this regard, there will still be a need to perfect the aspects that were well implemented and to address the shortcomings and gaps identified.

We make the following recommendations:

To the IEBC:

1. Invest in innovation in election technology and consider progressively digitising all aspects of the electoral process. This can include developing a super KIEMS application to provide a one-stop-shop for services such as voter registration, electronic voting, tallying and display of results.
2. Restore the real-time transmission of text tallies in result forms for all elective positions, as was the case in 2017, to be transmitted together with the images of the forms. These should be hosted on the results portal for all elective positions and could help address misinformation over election results.
3. Provide KIEMS kit metadata at the close of the election to enable verification of result forms. These can be sent directly by the kit and transmitted directly with the result forms.
4. Enhance the technical capacity of the voter verification portal to accommodate the huge volume of traffic the site receives during voting day.
5. At polling stations, there should be information for voters on how to access the voter registration SMS service, portal, or help desk to guide voters who wish to find out their registration status and polling stations. Access to the SMS service should be toll-free.
6. Early preparation, development, distribution, delivery and deployment of election technology and materials is critical.
7. Review polling stations for accessibility by persons living with disabilities and the elderly. The result forms should also be in a format that is accessible and machine-readable.
8. Collaborate with regulators and service providers to ensure Internet connectivity in all polling stations, especially those in underserved areas.
9. Ensure early preparation, recruitment, training and deployment of all the election officials.
10. Deploy staff at the National and County Centres in shifts to ensure an efficient 24/7 operational capability.
11. Have clear standard operating procedures which should be communicated to all election officials at polling stations relating to the role of observers, level of access, identification and accreditation to avoid confusion.
12. Conduct audits of the register of voters and the KIEMS election technology early and in line with prescribed timelines, and make the outcome public. This should inform the implementation of data protection and information security measures.
13. Publish a comprehensive manual on the operation of the KIEMS kit for election officials. Additional upgrades should be made to improve the simplicity and user experience of the software of the EVI and RTS applications.

14. Conduct comprehensive voter awareness and education well before the election and in a regular, consistent and comprehensive manner.
15. Utilise the IEBC website and social media platforms to proactively publicise and publish important information in relation to the election. The platforms should also be used to respond to misinformation and disinformation about the election.
16. Have posters on how to mark ballot papers within the polling booth as opposed to outside the polling stations.
17. Implement stringent data protection measures with respect to the voter register, and sharing of details of election officials, and publish the data protection impact assessment and policy for scrutiny.
18. Accreditation of observers should be done at least one year before the general election.
19. Engage and collaborate more with stakeholders, especially within the technology sector, to encourage innovation in electoral technologies.

To Stakeholders:

1. The Judiciary should fastrack the conclusion of election-related court disputes filed before or whose outcome has an effect on election day operations.
2. Social media platforms should take more proactive measures to address misinformation, disinformation, and hate speech on their platforms before, during and after the election period.
3. The media should be more innovative and combine efforts to provide election coverage, and tallying of results.
4. Election observers should extend their observation to critical processes prior to the election, including law reforms, procurement of election materials, party primaries and recruitment of officials.
5. Electoral offences should be prosecuted, and the code of conduct for political parties and candidates enforced.
6. All stakeholders should take measures and implement programmes to promote voter education and awareness in order to enhance turnout in elections.