Report of BVAS Testing and Mock Accreditation

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Report of BVAS Testing and Mock Accreditation

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Released on 10th February 2023

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Introduction

Data and technology will play a prominent role in Nigeria's 2023 elections. The electoral commission, INEC is relying on electoral technology to enhance the transparency and credibility of the election. Tools such as the Bimodal Voter Accreditation System (BVAS) and INEC Election Result Viewing portal will be deployed for the elections. This automation of critical aspects of the election process is backed by the 2022 Electoral Act and INEC's Regulations and Guidelines for elections. It is expected that these electoral technologies will enhance efficiency of election day process and inspire public confidence in election outcomes. To deliver on these expectations, the deployment of electoral technologies for the general elections must conform with the **principles of transparency, accountability, suitability, cost-effectiveness, security, accuracy, and inclusion**.

Standard practice requires institutions deploying electoral technologies to test and verify equipment, software and tools before deployment for elections. Pre-tests and evaluations of electoral technologies creates opportunities for improving public understanding of new electoral technologies and it avails electoral commissions ample time to fix identified software, hardware and operational challenges including possible scenarios for effective response. In other climes, election management bodies are required by law to conduct testing and verification of electoral technologies before deployment for nationwide elections. Nigeria's electoral legal framework places no statutory obligation on INEC to subject its electoral technologies to testing and verification.

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The BVAS and IReV were piloted in virtually all off-cycle elections conducted by INEC since 2021. Data from INEC shows the IReV has been deployed in 105 elections preceding the 2023 general election. While these technologies have been piloted in several off-cycle elections, the 2023 general election will be the first time they will be deployed at scale for national elections. The lessons from the pilot exercises and recent judicial pronouncements on electoral technologies underscore the imperative of continuous testing and verification of these tools before national deployment.

In line with good practice, INEC conducted a nationwide testing of the Bimodal Voter Accreditation System (BVAS) devices to be utilized in the general elections. The activity

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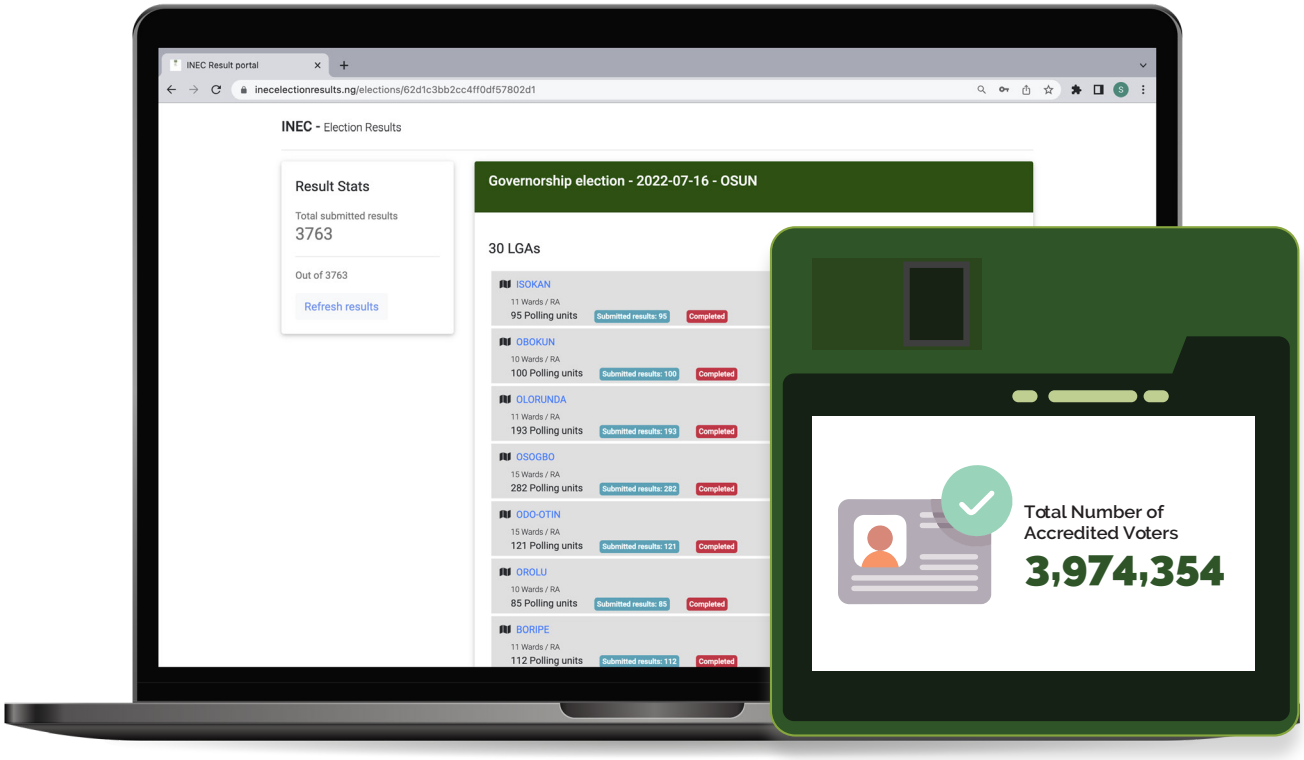
was conducted from **4th – 11th January 2023** in INEC state headquarters. In Imo, Abia and Enugu and Osun states, the exercise did not hold owing to security reasons and pendency of the 2022 Osun governorship election tribunal. Field reports also indicate new BVAS weren't deployed to Ekiti and Osun because both states have sufficient BVAS following the recent off-cycle governorship elections in those states. The mock accreditation exercise held on **4th February 2023** in 436 polling units across the 36 states and the FCT. INEC selected 12 polling units in each state. The polling units were distributed across three senatorial districts and six LGAs per state. However, the exercise held in 4 polling units in two area councils in the FCT.

During the mock accreditation, INEC piloted the simultaneous transmission of voter accreditation figures and election results to the INEC Election Results Viewing Portal (IReV). The new policy, implemented for the first time, is consistent with the recommendations of the Yiaga Africa Election Results Analysis Dashboard (ERAD) on the 2021 Ekiti and Osun governorship elections. Transmitting accreditation figures enhances the transparency of elections because it gives citizens the opportunity to check the consistency of the number of accredited voters recorded on the BVAS and the accreditation figures entered on the result sheet by polling officials. Undoubtedly, this level of transparency will boost public confidence in electoral outcomes and deepen the integrity of the upcoming general elections. Yiaga Africa commends and encourages the Commission to continue to demonstrate its commitment to enhancing the transparency of the electoral process, while hoping that all the other recommendations of ERAD will be implemented for the 2023 general election.

The mock exercise confirmed INEC assigned registered voters to new polling units without prior information to the voters. It further revealed a potential operational challenge the migration of voters to polling units could pose on election day where voters are unable to locate their polling units. During the mock exercise, the BVAS declined accrediting some voters who showed up at the polling units stated on their INEC-issued PVCs. Their names were not found on the BVAS for the polling unit because they have been migrated to new polling units without notice. While commending INEC for the redistribution of voters, it is imperative for INEC to notify voters affected by the migration to avert tension and chaos that could snowball into violence on election day.

INEC conceived the BVAS testing as a routine internal exercise hence the limited participation of stakeholders, while the mock accreditation was open for public participation. This posture may have precipitated the scarcity of information on the BVAS testing. Most key stakeholders were unaware of the exercise and clear communication and information wasn't provided by INEC. Although Yiaga Africa deployed observers to the 36 states and the FCT, the citizen observers were permitted to observe the BVAS testing exercise in only 14 states. Given the centrality of transparency in increasing public confidence, pilot and testing exercises should be conducted with a high degree of openness and stakeholder participation.

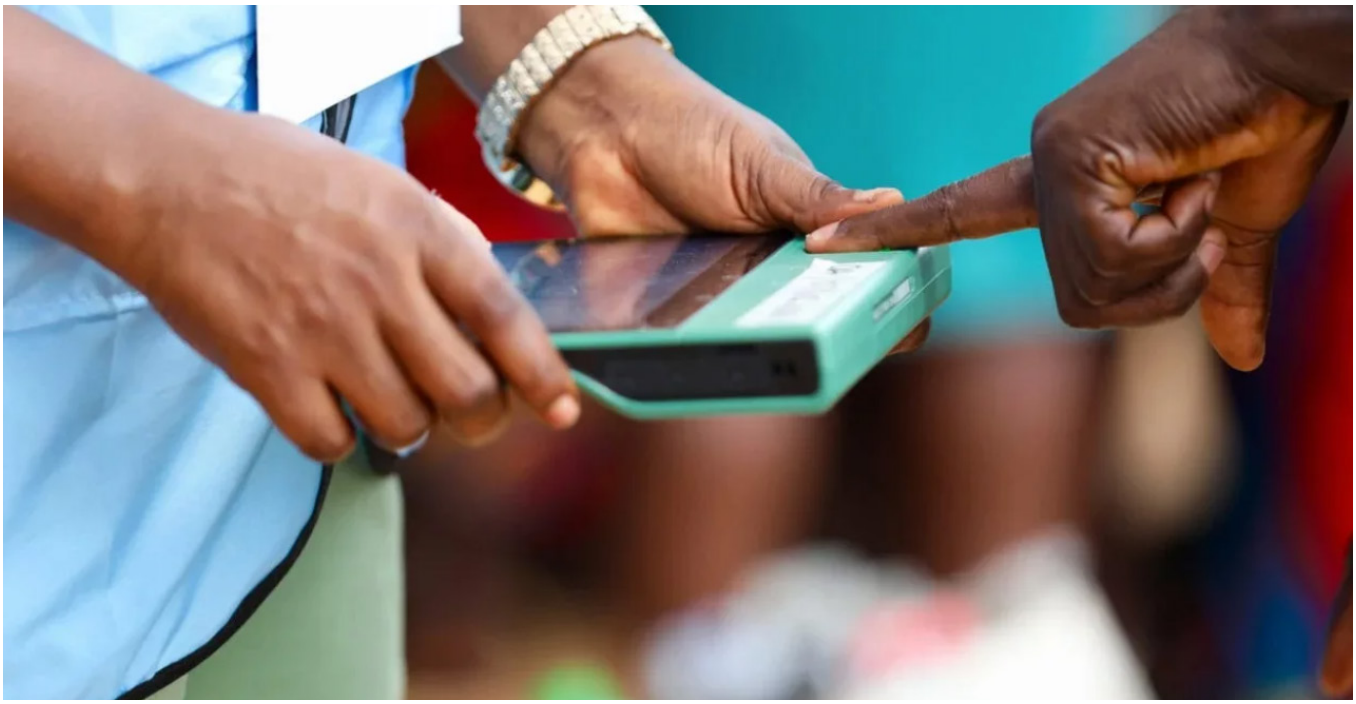
Understanding the BVAS and IReV



The Bimodal Voter Accreditation System (BVAS) and INEC Election Result Viewing Portal (IReV) are two technological innovations celebrated for enhancing the transparency of election results and boosting public trust in electoral outcomes in recent elections. INEC asserts that these technologies are addressing the ten most pervasive weaknesses in Nigeria's election result management process which include falsification of votes at polling units, falsification of number of accredited voters, collation of false results, mutilation of results and computational errors, swapping of results sheets, forging of results sheets, snatching and destruction of results sheets, obtaining declaration and return involuntarily, making declaration and return while result collation is still in progress and poor recordkeeping.

Both tools perform mutually reinforcing and critical functions in elections. The BVAS is a technological device used to identify and accredit voters' fingerprints and facial recognition before voting. The device is also used for capturing images of the polling unit result sheet (Form EC8A) and uploading the image of the result sheet online. IReV is an online portal where polling unit level results are uploaded directly from the polling unit, transmitted, and published for the public. At the front end of the online portal, members of the public can create personal accounts with which they can gain access to all uploaded results stored as PDF files. This accessibility of polling unit level results increases transparency and public trust in the process.

Methodology



The testing of the BVAS device focused on two critical components of the device; the Hardware component which entails fingerprint scanner and camera and the Software component comprising INEC BVAS application, Google Chrome, PDF reader, IReV offline application and Endpoint security. The testing process was structured on two key actions; activation and configuration of the BVAS machines. To activate the device, the BVAS is connected to the internet while the configuration entails update of the INEC BVAS app and other pre-installed apps on the devices. For the mock accreditation, the INEC officials were required to undertake normal voter accreditation processes using the BVAS and upload the accreditation data and mock result sheet on the mock results viewing portal provided for the exercise.

Yiaga Africa deployed citizen observers to all INEC state headquarters office to observe the BVAS testing for a period of four days. With a checklist, the observers tracked the activation and configuration of the BVAS devices including the coordination, and supervision of

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the exercise. Yiaga Africa observers were permitted to observe the exercise in 14 states only. The other states declined the request to observe the exercise. INEC officials in the following states denied the observers access to the BVAS testing centers; Anambra, Ebonyi, Cross-River, Rivers, Bayelsa, Zamfara, Jigawa, Kaduna, Bauchi, Gombe, Lagos, Ogun, Ondo, Oyo, Benue, Nasarawa, Niger, Plateau, Kogi and FCT declined the request to observe the exercise.

For the mock accreditation, Yiaga Africa deployed stationary observers to 218 polling units across all the LGAs in 36 states and the FCT, where INEC conducted the exercise. Yiaga Africa observers focused on assessing the deployment and functionality of the BVAS and how the commission managed concerns and queries related polling unit decongestion. In addition, the observation also tracked the transmission and publication of accreditation data on the IReV portal.

Observation Findings

1. Testing of the Bimodal Voter Accreditation System (BVAS)

In the last quarter of 2022, INEC took delivery of a substantial number of the BVAS machines. The last consignment of the BVAS machines arrived the country on 3rd January 2023 on the eve of the commencement of the testing exercise. INEC puts the figure of the total number of BVAS to be deployed for the elections at 181,803. INEC's testing of all the BVAS devices is an indication of the Commission's commitment to due diligence in ascertaining the functionality of the all BVAS devices procured for the elections.

In the states observed by Yiaga Africa, the BVAS testing was successful and the ICT staff demonstrated good knowledge of the systems and testing guidelines. The observers sighted the BVAS machines and noted the devices were stored in good condition. Most of the devices were activated and configured in line with the guidelines. However, some devices failed activation and configuration procedures due to hardware failures such as problematic cameras, screens and power buttons. Poor internet connectivity in the state offices delayed the configuration of the BVAS across several states.

Specific findings

1. **Network Challenges/Server:** While the functionality of the BVAS is not contingent on internet connectivity, the device requires internet for activation and configuration. Yiaga Africa received reports of internet/server challenges across several locations, which hindered the testing of the machines. Network challenges were experienced mostly in Adamawa, Taraba, Akwa Ibom and Rivers states. More than half of the locations visited during the four (4) visits experienced network challenges which hindered the activation of the machines on the days observed.

> **The testing process was structured on two key actions; activation and configuration of the BVAS machines. To activate the device, the BVAS is connected to the internet while the configuration entails update of the INEC BVAS app and other pre-installed apps on the devices.**

2. **Faulty BVAS:** Cases of faulty BVAS devices were reported in Sokoto, Edo, and Akwa Ibom states. The ICT officials discovered defective hardware components when they attempted to operate the machines. The dominant hardware defects include non-functioning camera, faulty screen and faulty fingerprint scanner. Reports from half of the centers indicate faulty fingerprint scanners was the most prevalent defect with the BVAS devices.

3. **BVAS Shortfalls:** In some states, the total number of BVAS required for the universe of polling units in the state were not available during the testing. The INEC states offices were awaiting the deployment of the outstanding BVAS from the National headquarters. For instance, in Edo State, there were reports of a shortage of at least 40 BVAS machines during the testing period. Similarly, backup BVAS were yet to

be deployed to Kwara state.

4. **Presence of Security:** All the BVAS testing locations were secured by security personnel. The security personnel were professional and they made no attempt to interfere with the testing exercise.

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5. **Resistance from electoral officials:** In some states, INEC officials resisted and declined to grant citizen observers access to observe the testing process. This hampered the observation in Zamfara, Jigawa, Kaduna, Plateau Kogi, FCT, and Cross-River, Bauchi, Gombe states amongst others.

2. Nationwide Mock Accreditation exercise

On Saturday, February 4, 2023, the Independent National Electoral Commission (INEC) conducted a mock accreditation exercise in **436** polling units selected in each senatorial district in the 36 states and the FCT. Actual voters in the designated polling units were invited to participate in the mock exercise designed to test the robustness, efficiency and reliability of the BVAS systems before national deployment. INEC also piloted the transmission of accreditation figures and polling unit results sheets simultaneously to the INEC Election Result Viewing Portal (IReV).

Yiaga Africa commends INEC for conducting the mock exercise albeit lately. The officials that managed the mock accreditation demonstrated impressive knowledge of the BVAS. Prior to the commencement of the mock accreditation some polling units selected for the mock accreditation were collapsed into other polling units or relocated on the morning of the mock accreditation without prior notice to voters. No reason was given for this action. This was reported in Kano where the polling unit in Bagadawa Saiji II Transformer in Dawakin Tofa LGA in Kano was moved to Dawanu Cikin Gari I. Also, in Mashi LGA of Katsina State, the Sardawa K/Gidan PU in Karau ward was moved to Mashi II ward.

The exercise reveals underlying challenges with the relocation of voters to new polling units without notice to the voters. In addition, the BVAS machines could not recall biometrics of some voters that registered in 2011. These twin challenges should be resolved to prevent disenfranchisement and discontent on election day. It is obvious, some voters will face challenges locating new polling units assigned to them by INEC on election day. Therefore, efforts must be made to inform the affected voters and assist them with locating the new polling units.

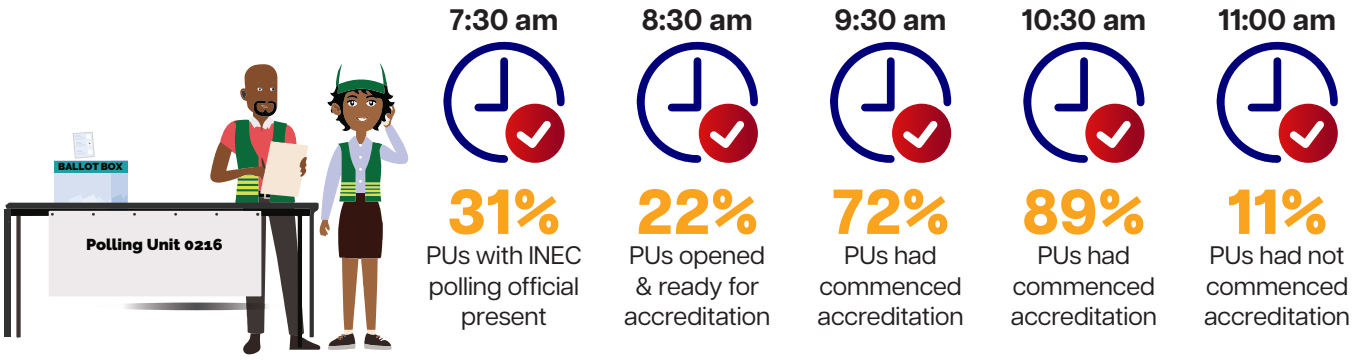
> **Yiaga Africa commends INEC for conducting the mock exercise albeit lately. The officials that managed the mock accreditation demonstrated impressive knowledge of the BVAS.**

Specific findings

1. **Arrival and commencement of mock accreditation:** Yiaga Africa observers reported that an INEC polling official was

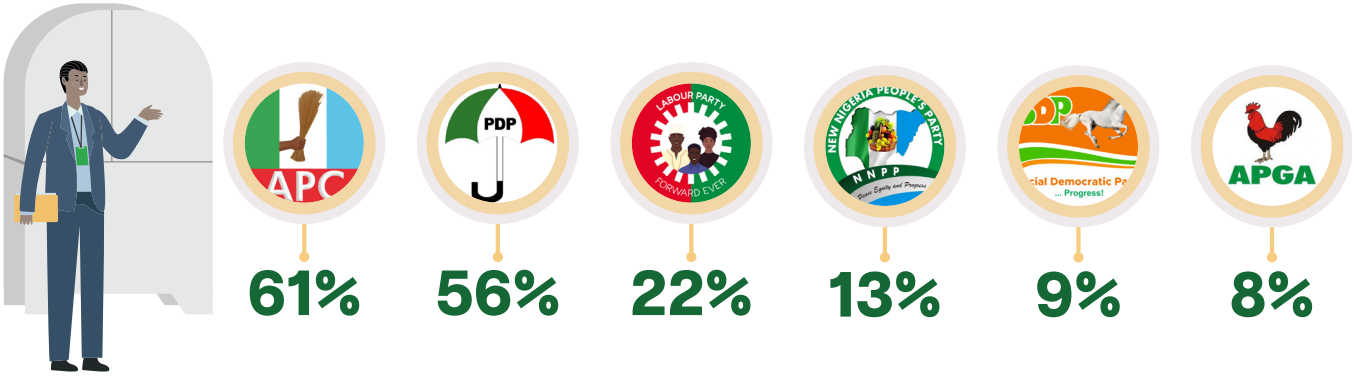
present in 31% of polling units at 7:30am. 22% of polling units were opened and ready for mock accreditation by 8:30 am. 48% of polling units had begun mock accreditation by 9:00 am. At 11am, the accreditation didn't commence in 11% of polling units.

Time Lapse of INEC officials Arrival and Commencement of Mock Accreditation across 211 Polling Units across the 36 States and FCT



2. **Deployment of polling officials and security personnel:** At least four polling officials were present in the polling units where the mock exercise held with an average of one female official. Security personnel were also present in 82% of the polling units.

3. **Presence of Party Agents:** Party agents for APC were present in 61% of polling units, party agents for PDP were present in 56% of polling units, party agents for LP were present in 22% of polling units, NNPP party agents in 13% of polling units, SDP party agents in 9% of polling units and party agents for APGA in 8% of polling units.



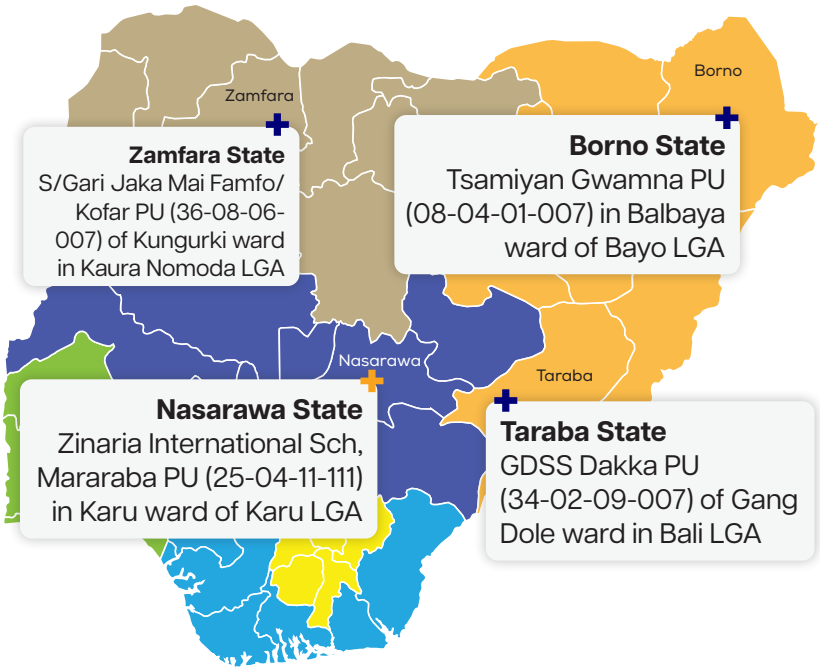
Deployment and Functionality of the Bimodal Voter Accreditation System (BVAS)

4. **Deployment of the BVAS:** The BVAS was present in all the polling units where Yiaga Africa observers were present. INEC deployed 2 or more BVAS devices in 35% of the polling units.

5. **The functionality of the BVAS:** In 98% of polling units, the BVAS functioned properly. However, in 2% of polling units, the BVAS malfunctioned, and it was fixed. For instance, the BVAS malfunctioned in Zinaria International Sch, Mararaba PU (25-04-11-111) in Karu ward of Karu LGA in Nasarawa, Tsamiyan Gwamna PU (08-04-01-007) in Balbaya ward of Bayo LGA in Borno, Sarkin Noma, GDSS Dakka PU (34-02-09-007) of Gang Dole ward in Bali LGA, Taraba and S/Gari Jaka Mai Famfo/Kofar PU (36-08-06-007) of Kungurki ward in Kaura Nomoda LGA Zamfara. The malfunctioning of the device did not significantly disrupt the process as in

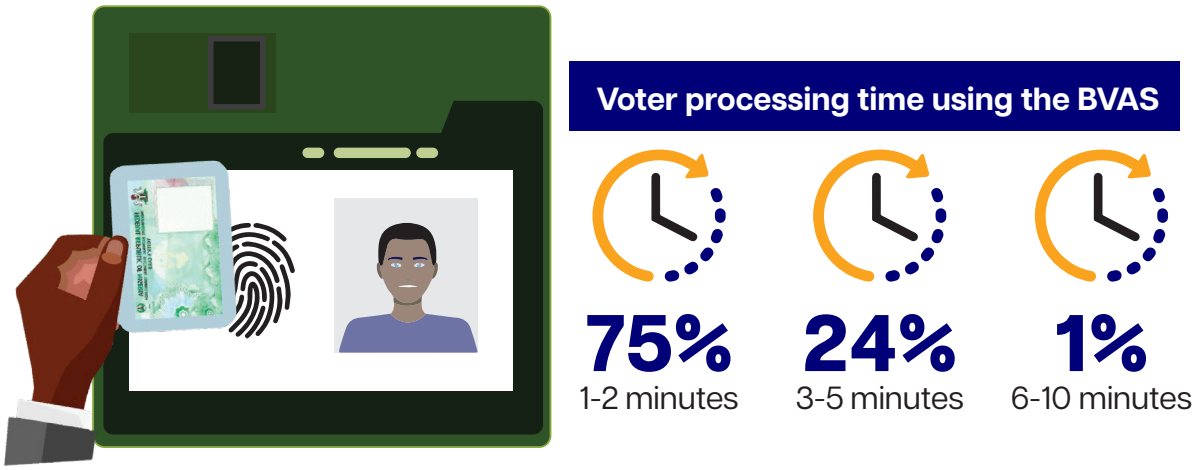
locations where the BVAS malfunctioned, it took between 1-5 minutes to fix the issues.

States with BVAS Malfunction during the mock Accreditation



6. **Verification of voter's biometrics using the BVAS:** In 84% of polling units, the INEC official checked every voter's fingerprint with the BVAS. The INEC official resorted to facial authentication in cases where fingerprint authentication failed. Yiaga Africa observed noted this in 82% of polling units. The facial authentication works efficiently compared to fingerprint verification. Voters were denied accreditation in 20% of polling units because the BVAS could not verify their fingerprints and authenticate their facial identity. The category of voters mostly affected were those who registered in 2011. For instance, in Magajin Gari 1 PU (25-09-07-001), Nasarawa ward, Nasarawa LGA in Nasarawa State 3 persons who registered in 2011 could not be authenticated using the BVAS although their names were found on the register.

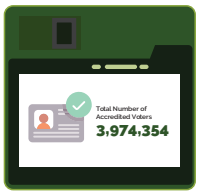
7. **Processing time for accreditation with the BVAS:** In 75% of polling units, the average time it took for accrediting a voter with the BVAS was 1-2 minutes. It took between 3 – 5 mins in 24% of polling units and an average of 6 – 10 minutes in 1% of polling units.



> **Yiaga Africa projects that the early hours of election day may be marred by confusion, chaos, and tension as voters struggle to identify newly assigned polling units. It should be anticipated that voters will be turned away from polling units as their names will be missing from the voter register in polling units they voted in previous elections.**

8. **Cases of missing names on the voter register:** Yiaga Africa observers reported cases of missing names of the voter register. In 11% of polling units, voters whose names were not on the register of voters and the BVAS were denied accreditation.

9. **Electronic transmission of mock result sheets:** In 83% of polling units, INEC officials obtained the number of accredited voters on the BVAS and recorded the figures on form mock result sheet. In 66% of polling units, the presiding officer used the BVAS to scan/take a snapshot of the mock results sheet. Yiaga Africa noted that in 68% of polling units, the presiding officer attempted to transmit/send the result image to the INEC's online database (IReV).



83%
obtained number of accredited voters on the BVAS

66%
POs used BVAS to scan/take a snapshot of the results sheet

68%
POs attempted to transmit/send the result image to IReV

10. The mock accreditation exercise ended before 2:30 pm in 45% of polling units. This is attributed to the low turnout of voters for the exercise. However, in a small fraction of polling units (8%), the exercise came to a close at 4pm.

11. 55% of observers indicated they were very satisfied with the conduct of the mock exercise, 40% of observers reported they were satisfied and, 4% of observers indicated they were not satisfied with the conduct of the mock accreditation exercise.

3. Mock transmission of accreditation data on the INEC Election Result Viewing Portal

Yiaga Africa downloaded and analyzed the mock results sheets and accreditation data uploaded on the mock IReV portal. A total of 191 mock results sheets were downloaded from the portal. 88 results sheets were from governorship election section of the portal, 6 from the Senatorial section (mainly from the FCT) and 97 from the State House of Assembly section. These findings are based on the analysis of 94 mock result sheets uploaded to the governorship and senatorial section of the IReV portal as at 10pm on Saturday, 4th February 2023.

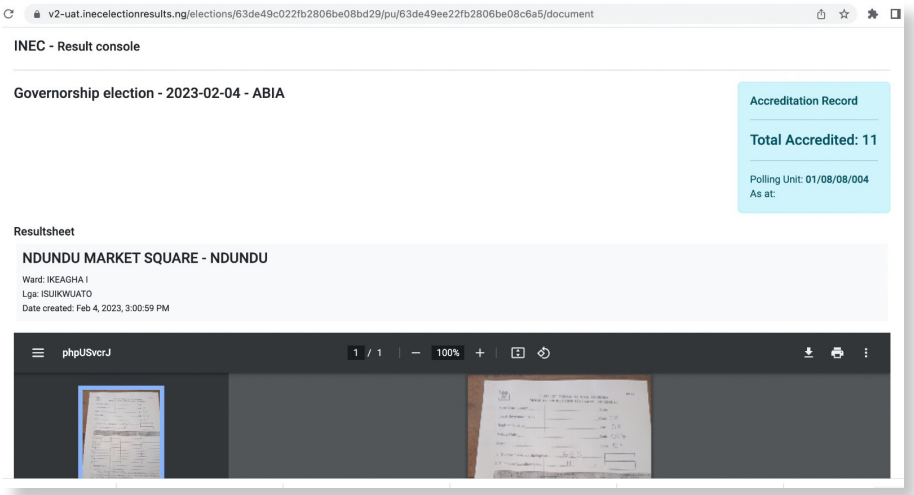
Specific findings

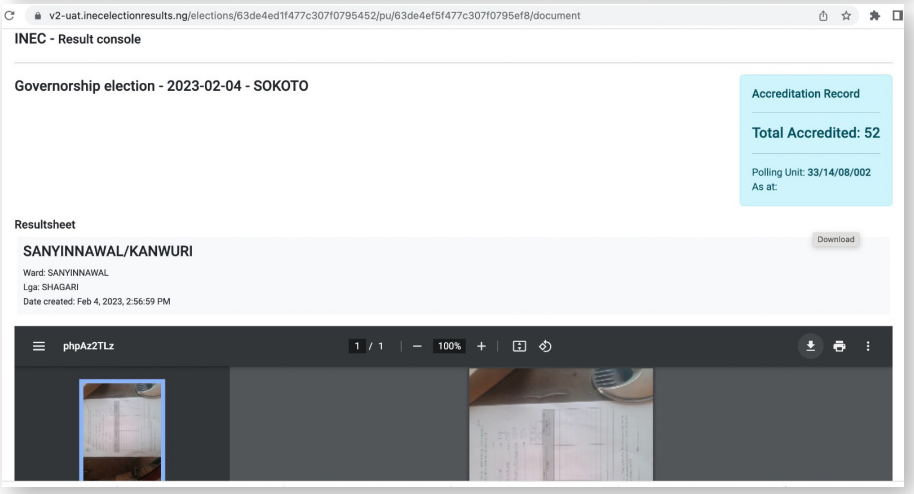
1. Of the 36 states and the FCT, only 15 states uploaded data on the IReV during the mock accreditation. The states include Abia, Adamawa, Akwa-Ibom, Anambra, Bayelsa, Ebonyi, Edo, Ekiti, Gombe, Ondo, Rivers, Plateau, Oyo, Taraba and Sokoto.

2. Only 82 Polling units uploaded the total number of accredited voters on the BVAS, to the IReV portal. All the 15 states that uploaded mock result sheets on the IReV also transmitted accreditation data except Oyo, Plateau, Edo and Ebonyi states.

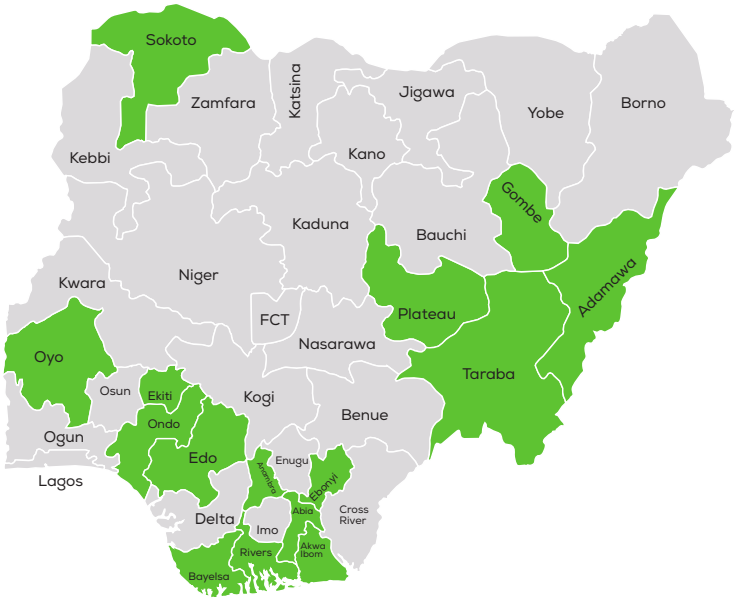
3. Of the 94 result sheets uploaded, only 16 result sheets were clear and readable.

4. Yiaga Africa observed discrepancies in the total number of accredited voters uploaded by the BVAS and the total number of accredited voters recorded on the mock result sheets.





States that uploaded data on the BVAS to the IReV portal during the Mock Accreditation



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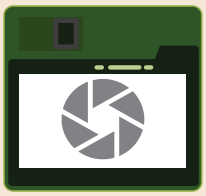
PUs uploaded the total number of accredited voters on the BVAS to the IReV portal



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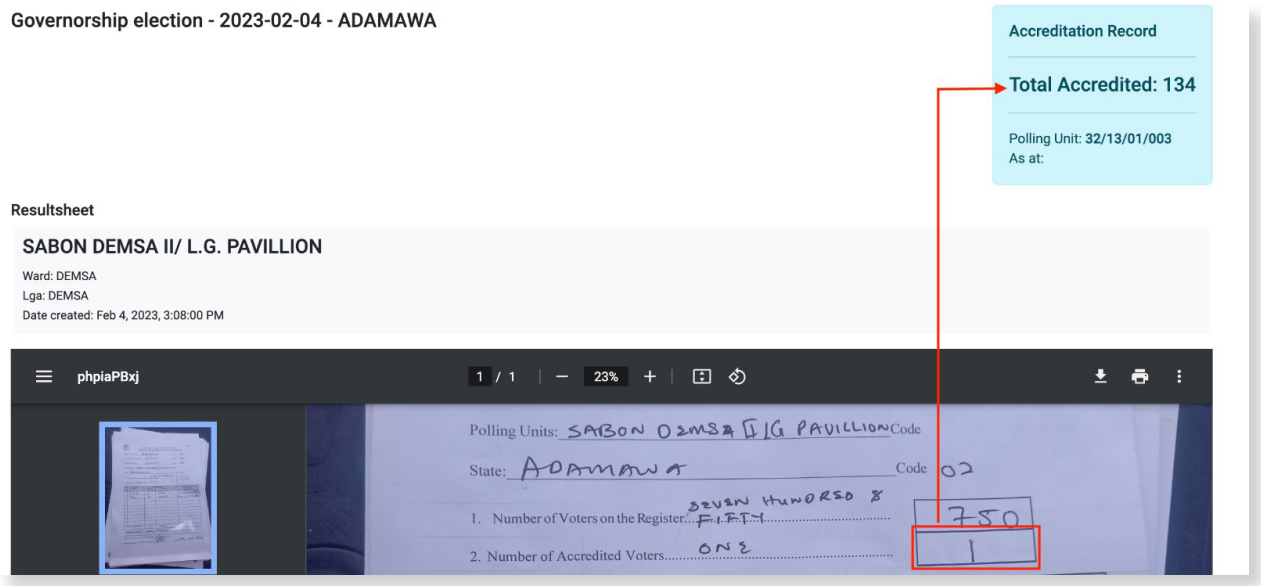
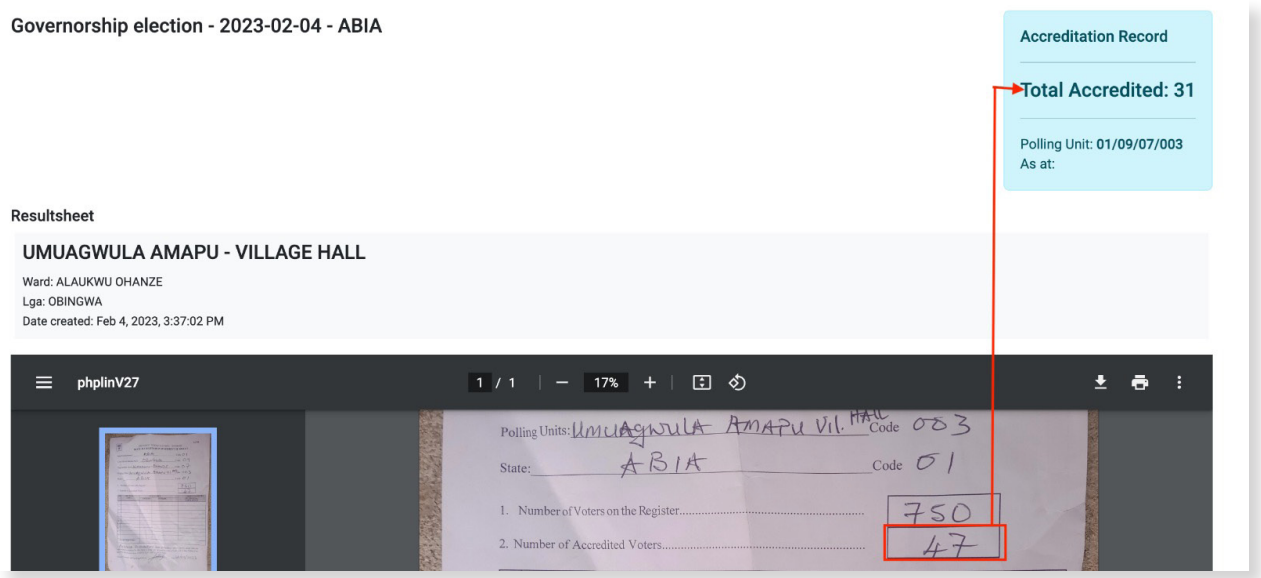
out 94 result sheets uploaded were clear and readable





Matters Arising

1. **Migration of voters to new polling units:** INEC's decongestion of oversized polling units is laudable. However, migrating voters to polling units without prior notice pose a risk to election-day operations and security. Yiaga Africa projects that the early hours of election day may be marred by confusion, chaos, and tension as voters struggle to identify newly assigned polling units. It should be anticipated that voters will be turned away from polling units as their names will be missing from the voter register in polling units they voted in previous elections. INEC should consider this a national election emergency and devise strategies for mitigating the risks posed by the migration of voters.

2. **Timing of the exercises:** The BVAS testing and mock accreditation was implemented too close to the date of election. For instance, the mock accreditation was conducted 20 days to the date of the Presidential and National Assembly elections. This gives INEC limited time to resolve issues and challenges identified during the testing or mock accreditation. It is uncertain INEC will resolve some of the issues in view of their complex nature.

3. **Capacity of election officials to use the BVAS:** The INEC officials that managed the mock accreditation exercise demonstrated sufficient capacity and knowledge of the BVAS and its functionality. While this is satisfactory, it is not a reflection of the capacity of the election officials responsible for accreditation on election day. The level of capacity exhibited by the officials will be required for effective election administration in the general election. It is uncertain these staff will serve as polling officials on election day. Future mock accreditation exercise should be managed by polling officials who will be deployed on election to perform the perform similar roles.

4. **Poor turnout:** The poor turnout of voters in majority of polling units can be attributed to low publicity for the exercise, voter fatigue from the PVC collection and discontent with the new naira notes and fuel crisis. Most citizens were preoccupied with managing the hardships created by the scarcity of the new naira notes and fuel crisis. INEC announced the dates for the mock accreditation one week to the exercise which limits the opportunity for adequate publicity, and citizen mobilization. Arguably, some voters may be recovering from the fatigue of the PVC collection hence the reluctance to participate in the mock exercise. Also, the simultaneity of the PVC collection and mock accreditation may have affected the turnout as most voters prioritize PVC collection over the mock exercise.

5. **Transparency and public confidence:** The deployment of electoral technologies should be benchmarked against certain non-negotiable principles such as transparency, accountability and inclusion. Piloting, testing and mock exercises inspires public confidence in electoral technologies. Therefore, key aspects of these processes should be subjected to public scrutiny to allay public fears on the robustness, security and efficiency of technologies deployed for elections.

Recommendations

Independent National Electoral Commission (INEC)

1. INEC should make public its reports on the set-up and testing of the BVAS and mock accreditation and provide updates on the steps taken to address the challenges identified during the BVAS testing and mock accreditation. INEC should investigate cases where the BVAS failed to authenticate the all the biometrics of voters, despite having the names on the register. It will inspire public confidence in the BVAS and IReV.

2. As a matter of national emergency, INEC should notify all voters affected by the migration of polling units of changes to their polling units via text messages, emails, and phone calls if possible. In addition, a copy of the voter register should be posted across polling units for voter to confirm their polling unit. This should be backed by a national campaign on locate and confirm your polling units via online and offline platforms.

3. INEC should replicate the transmission of the accreditation data on the BVAS to the IReV portal in the general election. Transmitting accreditation figures enhances the transparency of elections as it gives citizens the opportunity to check the consistency of the number of accredited voters recorded on the BVAS and the accreditation figures entered on the result sheet by polling officials.

4. To prevent data inconsistencies, INEC should issue strict guidelines for the synchronization of the BVAS and backend servers at the end of every election and not later than 24 hrs after elections. These guidelines should be enforced at all levels.

5. INEC should educate polling officials on recording and accounting of election figures, to avoid discrepancies between the accreditation data uploaded by the BVAS to the IReV and the figures recorded on the polling unit result sheet.

6. INEC should ensure all the BVAS devices deployed for the mock accreditation are reconfigured to read zero in the field for accreditation before they are deployed for the general election. A monitoring team to supervise and monitor the reconfiguration at the state level is highly recommended.

Citizens

7. Registered voters should utilize platforms provided by INEC to locate and confirm their polling units before election day. This will fast-track the process of voting on election day.

INEC should ensure all the BVAS devices deployed for the mock accreditation are reconfigured to read zero in the field for accreditation before they are deployed for the general election. A monitoring team to supervise and monitor the reconfiguration at the state level is highly recommended.

Stakeholders - National Assembly, Political Parties, Civil Society, Media, International Partners

8. The National Assembly should consider further amendments to the 2022 Electoral Act after the 2023 general elections to make the conduct of testing and mock exercises for electoral technologies mandatory including timelines for the conduct of these exercises.

9. Political parties should educate party agents on the accreditation and results management process to ensure effective oversight and avert ill-informed and unwarranted interference with the process on election day.

10. Civil society, media and international partners should undertake and support campaign initiatives aimed at assisting voters to locate and confirm their polling unit including inspiring confidence in the BVAS and IReV.

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