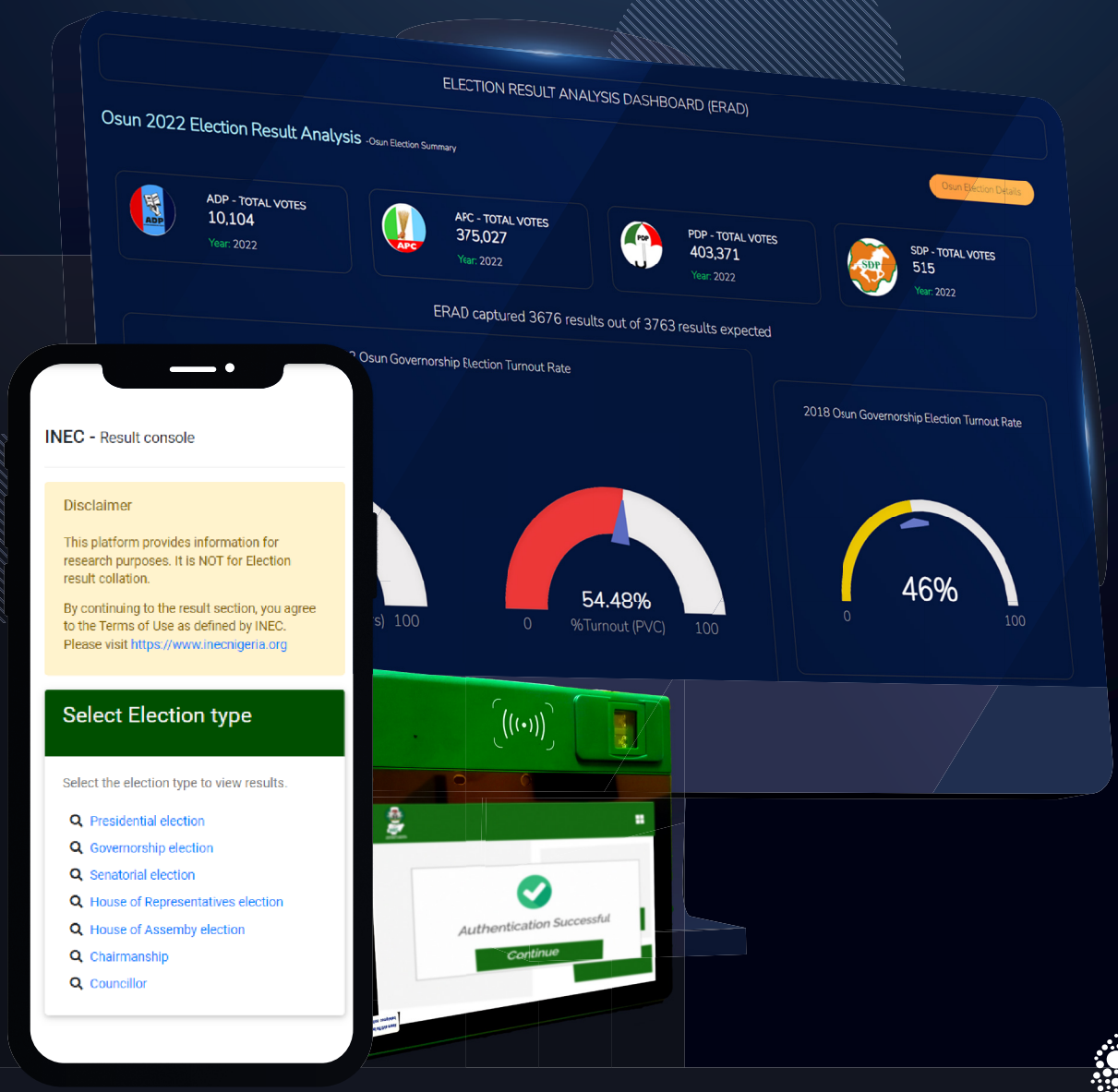
Is Electronic Transmission of Election Results a Game Changer?

Election Results Analysis Dashboard (ERAD) Report on Electronic Transmission of Election Results in the 2022 Ekiti and Osun Governorship Election



www.erad.ng

Yiaga Africa
Democratic Governance & Development
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Acknowledgment

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Special thanks to Prof. Okechukwu Ibeanu for his technical assistance, strategic leadership and incredible contribution to the ERAD project. Seun Okinbaloye deserves commendation for his diligence, commitment and expertise which he deployed for the success of ERAD project. Yiaga Africa commends the dedication and commitment of the ERAD analysis team comprising Dr. Hussaini Abdu, Ezenwa Nwagwu, Cynthia Mbamalu, Prof. Remi Aiyede, Lanre Arongundade, Prof Bolaji Omitola, Prof. Azeez Olaniyan, and Babajide Ogunsanwo. The depth of their analysis enriched the ERAD findings and increased public understanding of the trends and patterns in the Ekiti and Osun elections.

We owe a debt of gratitude to the Independent National Electoral Commission (INEC) for the openness and transparency and willingness to share information and data with Yiaga Africa. INEC's support to the ERAD is contributing in no small measure to the success of the project.

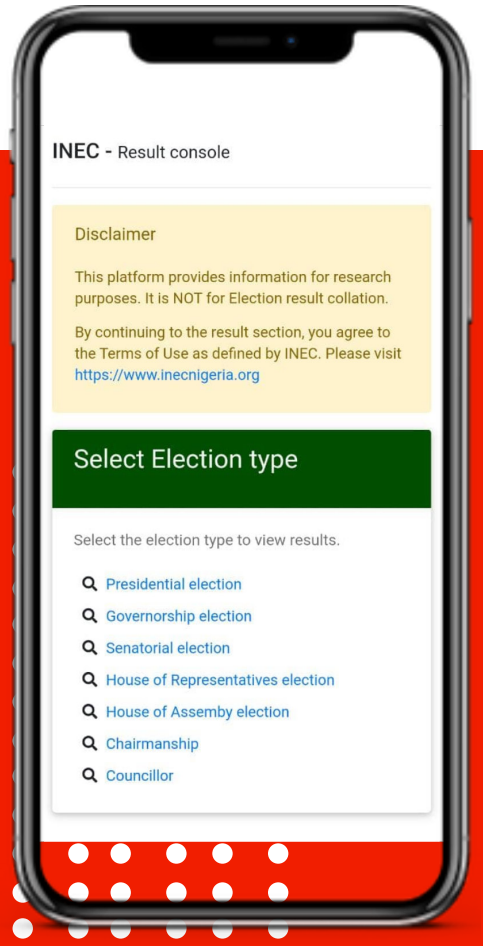
Yiaga Africa appreciates the collaboration of our development partners and support for credible elections in Nigeria. We appreciate the United Nations Development Program (UNDP) for its support to ERAD.

Our key media partner on this initiative, Channel Television, is greatly appreciated for co-designing and co-implementing the ERAD project. The success of the ERAD in Ekiti and Osun demonstrates the transformative power of collaboration between civil society and media organizations, especially when both groups are driven by excellence, professionalism, and commitment to electoral democracy.

Itodo Samson
Executive Director

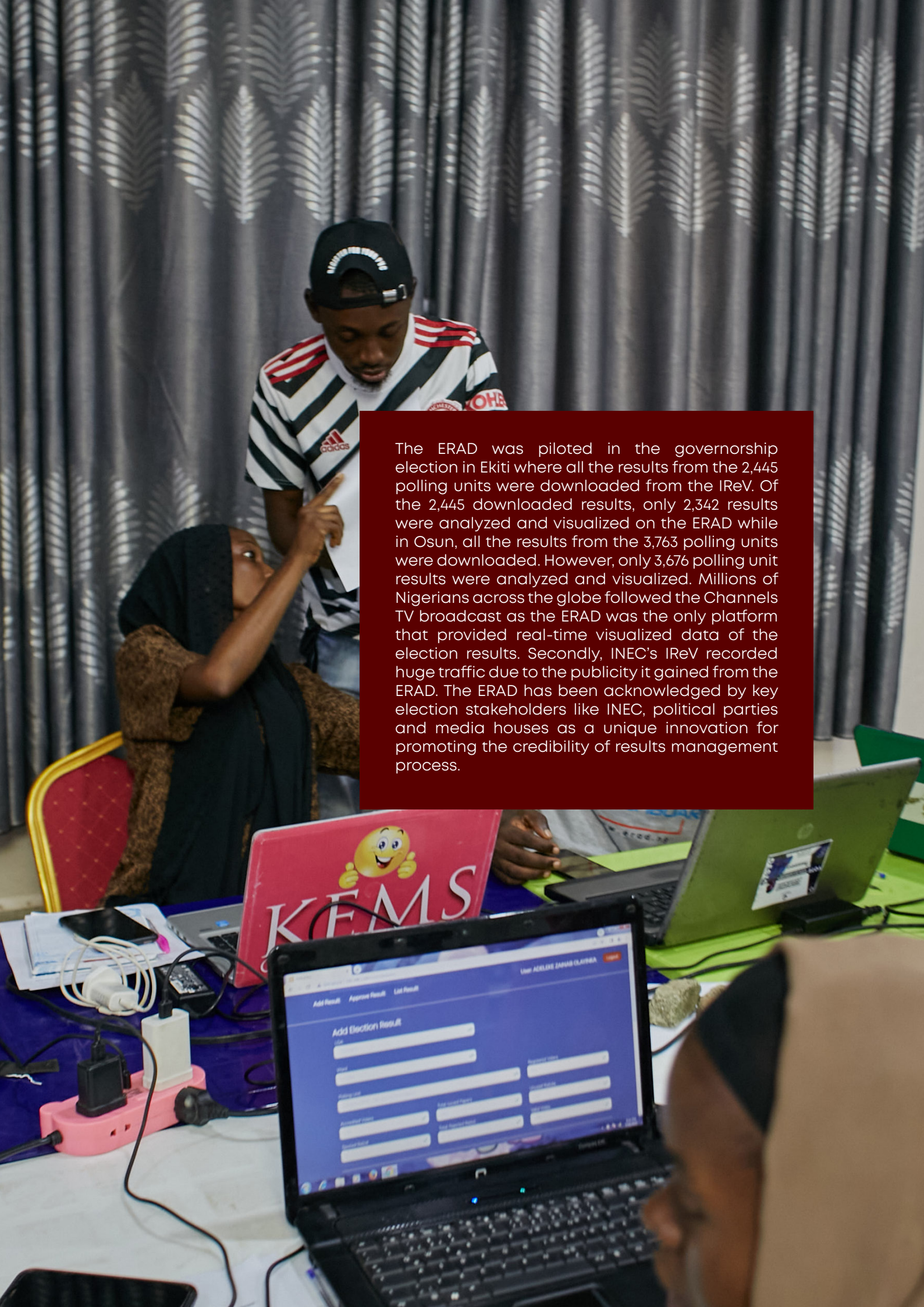
Introduction

n 2020, the Independent National Electoral Commission (INEC) established a result viewing portal (IReV) to provide the public access to Polling Unit election results as soon as they are finished. This relative real-time publishing of election results was part of the Commission's commitment to transparency in results management, which for many years has been of primary concern to election stakeholders. IReV involves scanning or photographing Polling Unit result sheets (Form EC 8A) once they are completed and verified, and subsequently uploading the pictures to a dedicated backend server. At the frontend, the portal allows members of the public to create personal accounts and log-in details with which they can gain access to all uploaded results stored as PDF files. The introduction of IReV has increased public confidence in results management. At the same time, it offers wide-ranging opportunities for public information based on data directly sourced from the portal and backed by in-depth analysis. The real-time publishing of polling unit-level results and transmission of results using the IReV demonstrates INEC's commitment to transparency in results management.

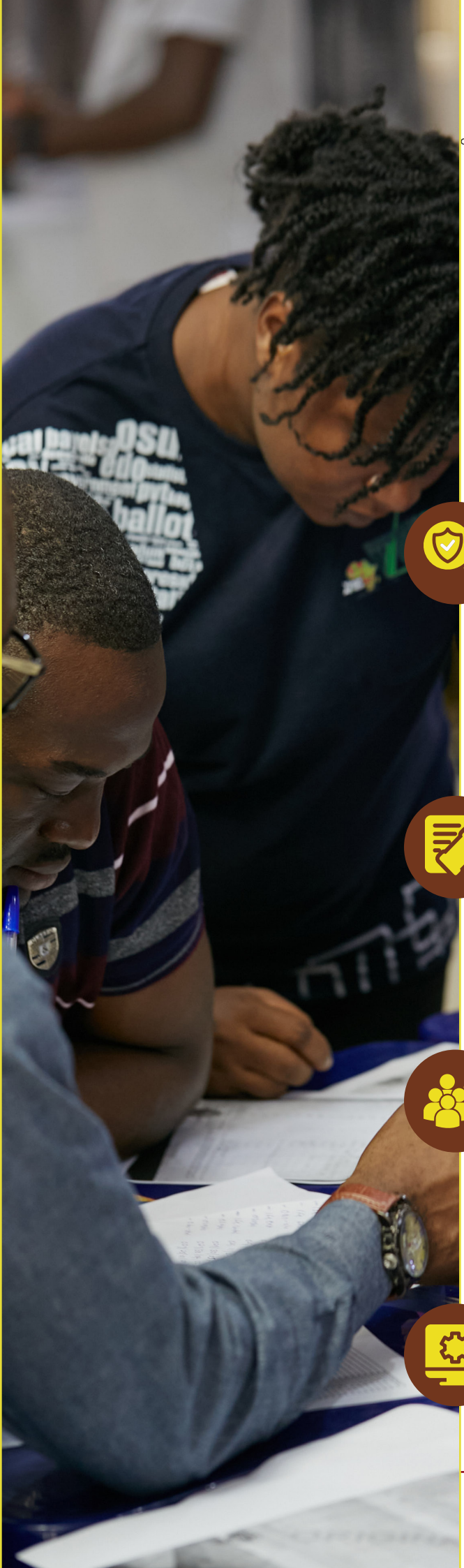


The Electoral Act 2022 confers legality on electronic accreditation of voters and electronic transmission of results. The Act also mandates INEC to maintain and update, on a continuous basis, a register of election results to be known as the National Electronic Register of Election Results. The electronic register is a distinct database or repository of polling unit results, including collated election results for each election conducted by the Commission across the Federation. The legitimacy of electoral outcomes has greatly improved due to the new provisions in the Electoral Act 2022.

INEC deployed the IReV for the 2022 Ekiti and Osun governorship election. Polling unit level results were uploaded on the portal as part of INEC's policy on electronic transmission of result. Yiaga Africa and Channel Television launched an Election Result Analysis Dashboard (ERAD) to support INEC by providing the public with access to analyzed election results from the polling unit in relative real-time. To achieve this goal, the Election Results Analysis Dashboard was embedded within the election-day broadcast of Channels Television. By tracking results from the polling units based on the Commission's own published results, the ERAD operates as independent audit and integrity test assessment tool for INEC's election results management.



The ERAD was piloted in the governorship election in Ekiti where all the results from the 2,445 polling units were downloaded from the IReV. Of the 2,445 downloaded results, only 2,342 results were analyzed and visualized on the ERAD while in Osun, all the results from the 3,763 polling units were downloaded. However, only 3,676 polling unit results were analyzed and visualized. Millions of Nigerians across the globe followed the Channels TV broadcast as the ERAD was the only platform that provided real-time visualized data of the election results. Secondly, INEC's IReV recorded huge traffic due to the publicity it gained from the ERAD. The ERAD has been acknowledged by key election stakeholders like INEC, political parties and media houses as a unique innovation for promoting the credibility of results management process.



Pre-conditions for ERAD

The following pre-conditions are essential for the deployment of the ERAD;

A commitment to electoral transparency:

Electoral stakeholders must demonstrate commitment to transparency of all aspects of the electoral process. INEC's commitment to share election information such as polling unit distribution, Permanent Voter Card (PVC), and election results is central to the ERAD.

A legal framework that permits electronic accreditation transmission of results:

With an improved electoral legal framework that legally approves transmission of accreditation data and election results directly from the polling units, access to election data is guaranteed.

A coalition of the willing:

Broad based partnerships and collaboration makes the ERAD deployment possible. It takes a combination of civil society actors, media organizations, technology experts, election scholars and analysts with shared values and interests to promote electoral transparency.

An efficient, reliable, and secure technology:

The ERAD is a technology innovation that relies on efficient, reliable, and secure technology infrastructure to function.

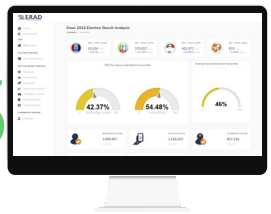
The ERAD Business Process

1

Download, and extraction of the PDF version of the results from the IReV: A team of data clerks download election results uploaded on the INEC IReV.

2

The Election Result Database: The results on the downloaded PDF files are extracted and entered into a database by data operators. The results are checked by data checkers and approved for visualization and analysis.

3 

Election Results Dashboard: A contemporary intelligent, interactive electronic dashboard with various tools to analyze and display/visualize election data in diverse formats to facilitate public understanding of election results.

4

Expert analysis: Once the results are verified, they are transmitted to the results analysis team to evaluate the results, situate them in broader analytic frameworks and make prognoses and projections.

ERAD Findings on the electronic transmission of results in Ekiti and Osun

Functionality of the IReV portal:

Generally, the IReV portal functioned optimally making it possible for Presiding officers to upload results. The timing and frequency of the uploads were satisfactory. In Ekiti, at 6pm on election day, 67% of polling unit level results were already uploaded on the IReV. At 10:52pm,100% of the results were on the IReV portal. Similarly, in Osun, 60% of results were uploaded on the IReV portal at 6pm on election day. By 11pm, 98% of the results were on the portal.

Accessibility to the IReV portal:

In Ekiti election, access to the IReV portal was seamless. Users encountered no difficulty with the creation of user logins. However, members of public encountered difficulties in accessing the IReV portal between 1:30pm – 5pm on election day. Password recovery for existing users performed poorly as email verification took long hours. New users also encountered delays with the creation of new log in accounts. While the upload of results occurred with considerable speed, the download of the results was excessively slow.

While the server used for the upload of results from the BVAS functioned with considerable speed due to adequate bandwidth on the server, the ERAD findings show that the Amazon Web Services (AWS) server used for the storage of polling unit results had limited bandwidth to handle the multiple requests on election day. The huge traffic on the portal at the end of voting and commencement of ward collation

(2:00pm – 6:00pm) affected the server and reduced the speed of processing requests from users. Overall, the election result for Ekiti requires a storage capacity of 10gb and Osun 15gb respectively.

Condition of Uploaded Election Results

In the Ekiti election, eighty-eight (88) result sheets were not entered into the ERAD database due to issues that disabled data entry. Similarly, eighty-seven (87) results were not processed on the ERAD in the Osun election owing to the following issues;

1. **Upload of Incorrect Election Forms:** Based on the ERAD findings, INEC Presiding officers uploaded forms or documents other than Form EC8A as prescribed in the guidelines and manual for the election. Some of the forms include the Form EC60E designed for posting results at the polling units, handwritten letters and notes indicating cancellation of polling unit level results. See annexures for samples of wrongly uploaded forms.

2. **Blurry Images and Poorly Captured Photographs of Result Sheets:** Blurry images and poorly captured photographs of result sheets were uploaded on the IReV portal in both elections. It was impracticable to decipher the number of votes scored by political parties on the uploaded forms. In some cases, the Presiding officers uploaded truncated images of result sheets. In other words, the images omitted segments of the result sheets. Collation officers or Returning officers are required by the Electoral Act 2022 under S64 (4) to verify and confirm the results on the hardcopy result sheet and the electronically transmitted results before announcing the result of an election. It is, however, unclear whether the collation officers complied with this procedure given the condition of some results sheets uploaded on the portal. See annexures for samples of blurry images and truncated result sheets.

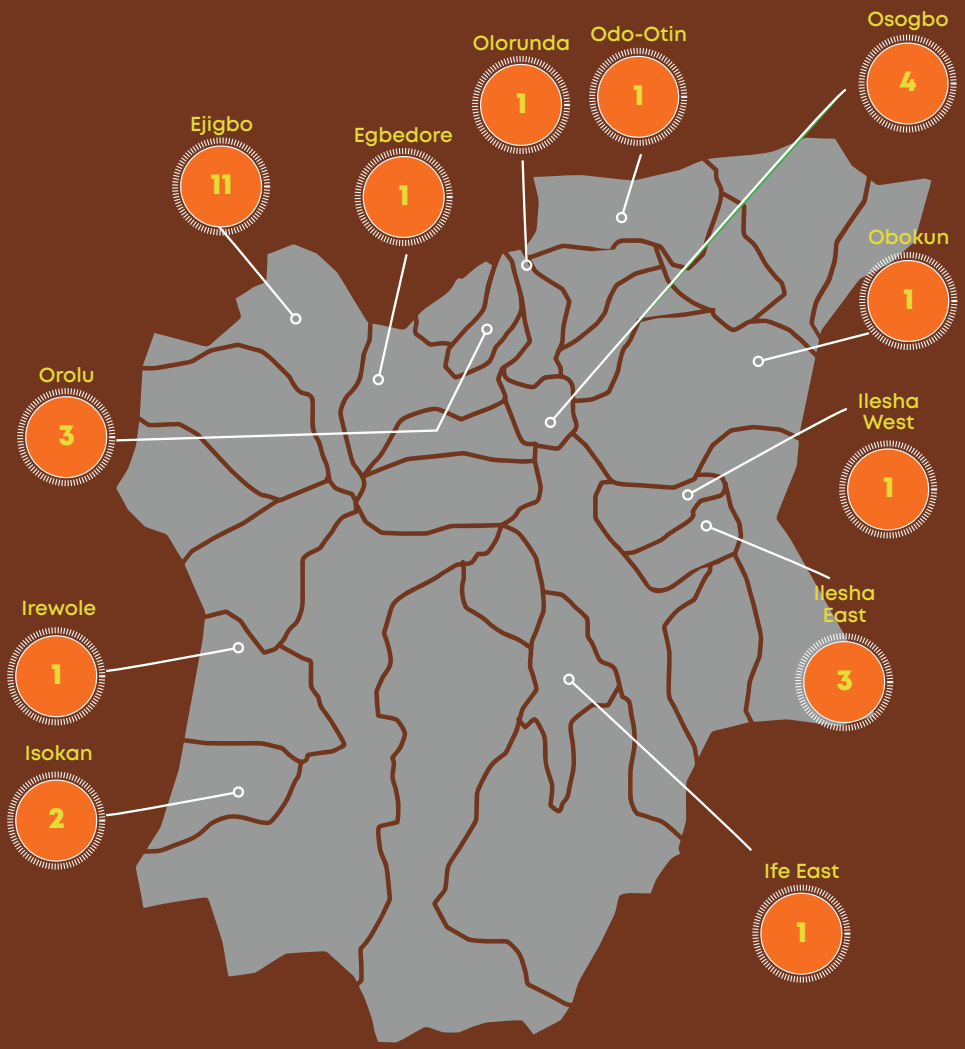
3. **Wrongly Inputted and Omitted Data on Result Sheets:** From the result sheets downloaded on the IReV, important delimitation data such number of registered voters and accredited voter for polling units was either omitted or wrongly inputted on the Form EC 8A. In some cases, the number of registered voters recorded for some polling units were less than the accredited voters. See annexures for sample of result sheets with omitted data

4. **Unstamped and Unsigned Result Sheets:** Contrary to the provisions of the Electoral Act 2022 and INEC Guidelines and Regulations, some polling unit level results (Form EC8A) uploaded on the IReV were not stamped or signed by the Presiding officer. In the Osun election, the ERAD findings revealed that of the 3,676 results that were entered on the dashboard; 10 polling unit results were not stamped and signed, 15 result sheets not stamped but signed, and 2 results sheets were stamped but not signed.

5. **Variation in the total number of rejected ballots:** Based on results entered on the ERAD database, there was a variation in the total number of rejected ballots, and the figures announced by INEC at the final collation. For instance in Osun, the total rejected ballots as compiled from the polling units by the ERAD is 21,886, while the total number of rejected ballots as announced at the INEC's state collation in Osun state is 18,674.

Inconsistencies in the data on PVC collection:

An analysis of the number of registered voters and the PVC collected by polling units revealed some inconsistencies in the data. Findings from the analysis on the Osun PVC collection data revealed that the total number of PVCs collected for 30 Polling Units were greater than the total number of registered voters in those polling units. These inconsistencies were recorded in 12 LGAs as enumerated in the infographic below;



TOTAL	30

Pathways for improving the transparency of election result management

Recommendations for INEC

1. INEC should invest in the training of polling unit officials, with a special focus on result transmission, ballot paper accounting as well as the capturing of polling unit results using the BVAS. It will address the capacity deficits resulting to upload of incorrect or incomplete forms and blurry images.

2. In addition to the transmission of polling unit level results, INEC should electronically transmit and publish the number of accredited voters on the IReV. This is in accordance with the Section 64(4)(5)(6) of the Electoral Act 2022.

3. To deepen the transparency of the collation process, the Form EC8B, Ward collation result sheet should be uploaded on the IReV portal at the close of collation at the ward level. It will facilitate monitoring and tracking of the results collation process.

4. INEC should increase the Amazon Web Services (AWS) resources for storing the form EC8A or polling unit results in the AWS server. Increasing the bandwidth, RAM size and storage capacity of the server to improve the processing power of the IReV portal and ensure public access to results uploaded on the portal.

5. The commission should review the features of the BVAS to improve picture quality. The IOS on the BVAS should be upgraded to introduce a feature that enables the camera to detect or capture/focus on the object of interest on the result sheet.

6. INEC should consider converting the file (election results) from PDF to jpeg and create options for varying quality for downloads similar to YouTube downloading options. A PDF compression script can be integrated on the portal to ease downloads of the results.

7. INEC should introduce a form like the Form E40G for reporting cancellation of results at the polling unit, to avoid upload of documents not relevant to the IReV or handwritten letters.

8. The Commission should discontinue new registrations or user account creation on the IReV portal 12 hours to election day, this will reduce the stress level on the IREV server on election day.

9. INEC should insist on strict compliance with the guidelines for electronic transmission of results. Sanctions should be imposed on Presiding Officers, Collation Officers and Returning Officers for any failure to upload results promptly or non-reference to electronically transmitted results for result collation.

10. To inspire public confidence in the IReV and BVAS, INEC should conduct penetration tests and mock exercises to assess the robustness, efficiency, security and capacity of its servers and devices to be deployed for the 2023 general election. The findings of these tests/ exercises should be available to the public.

Key lessons and takeaways

1. The transparency of the transmission and collation of election results is a parameter for measuring the integrity quotient of elections. Therefore, safeguarding the integrity of future elections will require a greater level of transparency and openness in the accreditation, voting, counting of ballots, transmission and collation of results.

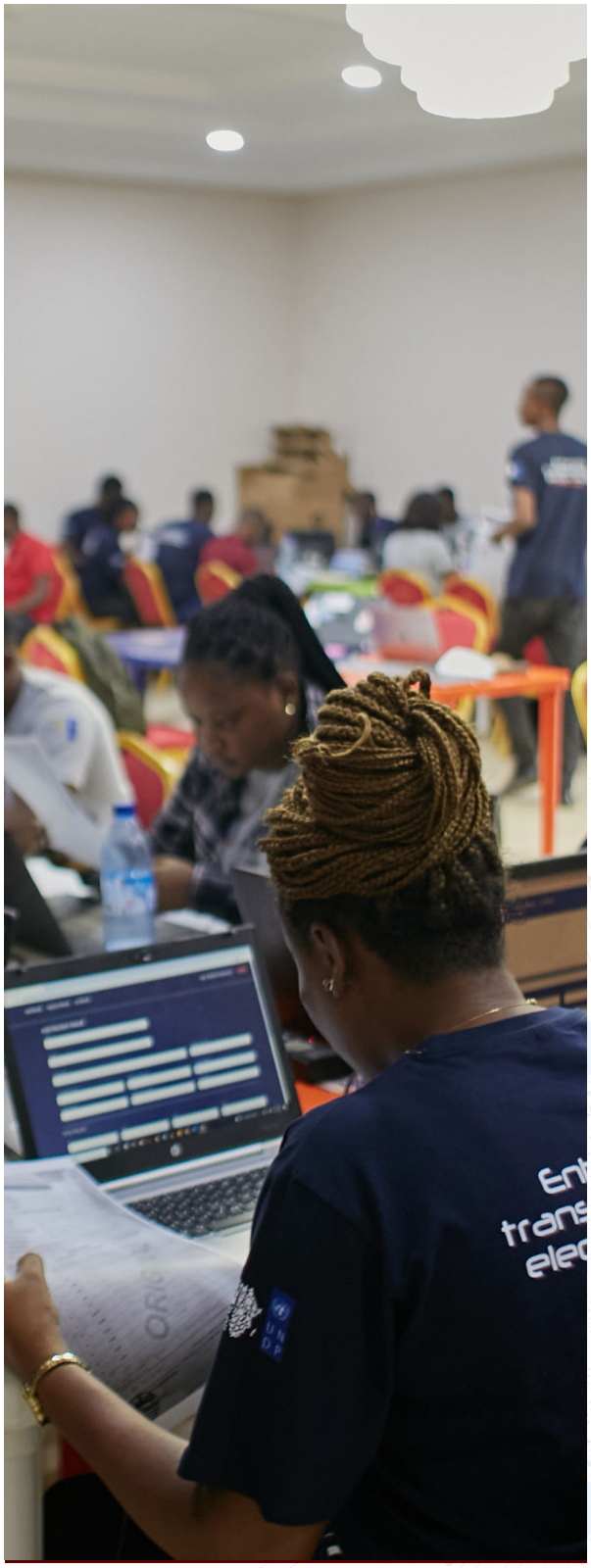
2. Public trust is essential for any successful deployment of electoral technologies. The confidence of citizens and election stakeholders in the electronic devices deployed by INEC like the BVAS and the IReV web portal influences voter participation in elections as well as the acceptability of electoral outcomes.

3. The aggregation, analysis, visualization and broadcast of real-time election results counters fake news and disinformation during and after elections. It is important for critical stakeholders to establish a single source of truth for election results in the 2023 elections.

4. As a repository of extensive election data, the ERAD is emerging as a powerful tool for revolutionizing election research in Nigeria. While complementing INEC's IReV or National Electronic Register of Election Results (NERER), researchers can have access to credible election data such as polling units results and other relevant election statistics on the ERAD platform.

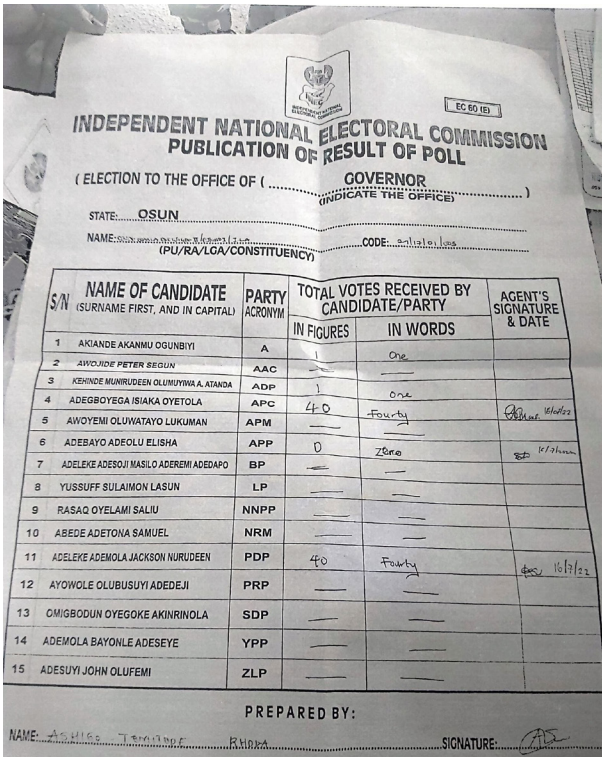
Conclusion

The introduction of the IReV into the framework for election results management has transformed public perception of the accuracy and credibility of election results. It has boosted the transparency of elections by ensuring voters have access to polling unit results at the close of polls. It is an undisputed fact that granting public access to polling unit level results in near real-time is gradually sanitizing the results collation process. Uploading results on the portal deter collation officers and politicians from altering or mutilating election results at different collation levels. This oversight mechanism introduced by INEC and legalized by the Electoral Act 2022 is one of the most significant innovations and reform to Nigeria's electoral process. Therefore, improving the efficiency of the IReV to sustain public confidence in the results management process is critical for the successful conduct of the 2023 elections. Addressing the gaps and shortcomings identified by the ERAD will guarantee the credibility and legitimacy of the results of future elections. It will require an amendment and update of the Regulations and Guidelines for elections and Manual for election officials; enhancement of the technological infrastructure for the IReV to improve its processing power and protect the portal against hybrid cyber threats and lastly, strategic and consistent stakeholders' engagement.



Appendix

Wrongly uploaded forms



INDEPENDENT NATIONAL ELECTORAL COMMISSION
PUBLICATION OF RESULT OF POLL

EC 60 (E)

(ELECTION TO THE OFFICE OF (GOVERNOR (INDICATE THE OFFICE))

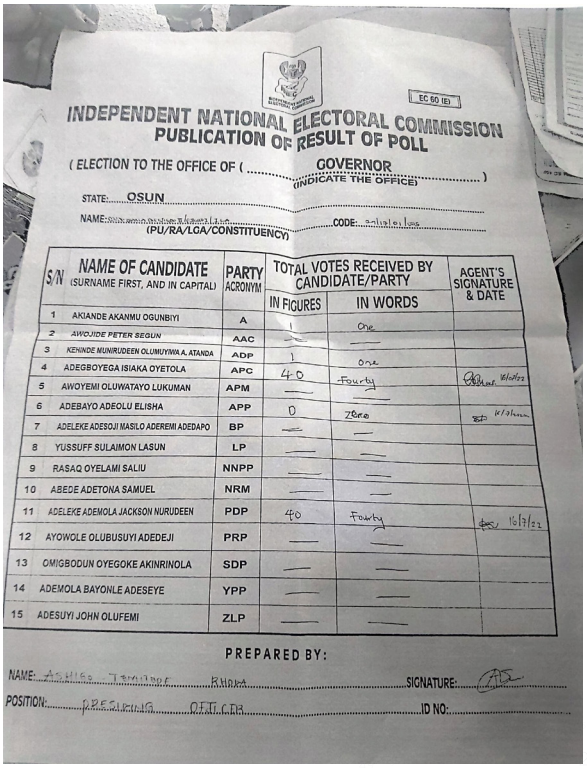
STATE: OSUN

NAME: (PU/RA/LGA/CONSTITUENCY) CODE:

S/N	NAME OF CANDIDATE (SURNAME FIRST, AND IN CAPITAL)	PARTY ACRONYM	TOTAL VOTES RECEIVED BY CANDIDATE/PARTY		AGENT'S SIGNATURE & DATE
			IN FIGURES	IN WORDS	
1	AKIANDE AKANMU OGUNBIYI	A	1	One	
2	AWOJIDE PETER SEGUN	AAC	—	—	
3	KEHINDE MUNIRUDEEN OLUMUYIWA A. ATANDA	ADP	1	One	
4	ADEGBOYEGA ISIAKA OYETOLA	APC	40	Fourty	16/7/22
5	AWOYEMI OLUWATAYO LUKUMAN	APM	—	—	
6	ADEBAYO ADEOLU ELISHA	APP	0	Zero	16/7/22
7	ADELEKE ADESOJI MASILO ADEREMI ADEDAPO	BP	—	—	
8	YUSSUFF SULAIMON LASUN	LP	—	—	
9	RASAQ OYELAMI SALIU	NNPP	—	—	
10	ABEDE ADETONA SAMUEL	NRM	—	—	
11	ADELEKE ADEMOLA JACKSON NURUDEEN	PDP	40	Fourty	16/7/22
12	AYOWOLE OLUBUSUYI ADEDEJI	PRP	—	—	
13	OMIGBODUN OYEGOKE AKINRINOLA	SDP	—	—	
14	ADEMOLA BAYONLE ADESEYE	YPP	—	—	
15	ADESUYI JOHN OLUFEMI	ZLP	—	—	

PREPARED BY:

NAME: SIGNATURE:



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			IN FIGURES	IN WORDS	
1	AKIANDE AKANMU OGUNBIYI	A	1	One	
2	AWOJIDE PETER SEGUN	AAC	—	—	
3	KEHINDE MUNIRUDEEN OLUMUYIWA A. ATANDA	ADP	1	One	
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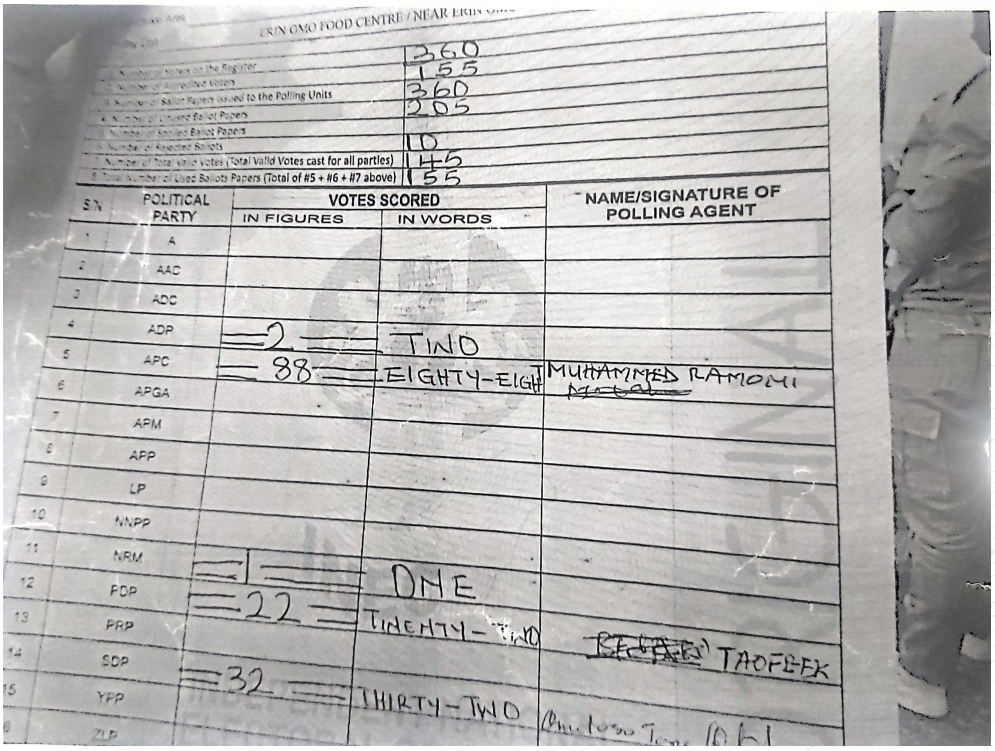
7	ADELEKE ADESOJI MASILO ADEREMI ADEDAPO	BP	—	—	
8	YUSSUFF SULAIMON LASUN	LP	—	—	
9	RASAQ OYELAMI SALIU	NNPP	—	—	
10	ABEDE ADETONA SAMUEL	NRM	—	—	
11	ADELEKE ADEMOLA JACKSON NURUDEEN	PDP	40	Fourty	16/7/22
12	AYOWOLE OLUBUSUYI ADEDEJI	PRP	—	—	
13	OMIGBODUN OYEGOKE AKINRINOLA	SDP	—	—	
14	ADEMOLA BAYONLE ADESEYE	YPP	—	—	
15	ADESUYI JOHN OLUFEMI	ZLP	—	—	

PREPARED BY:

NAME: SIGNATURE:

POSITION: ID NO:

Truncated uploaded form



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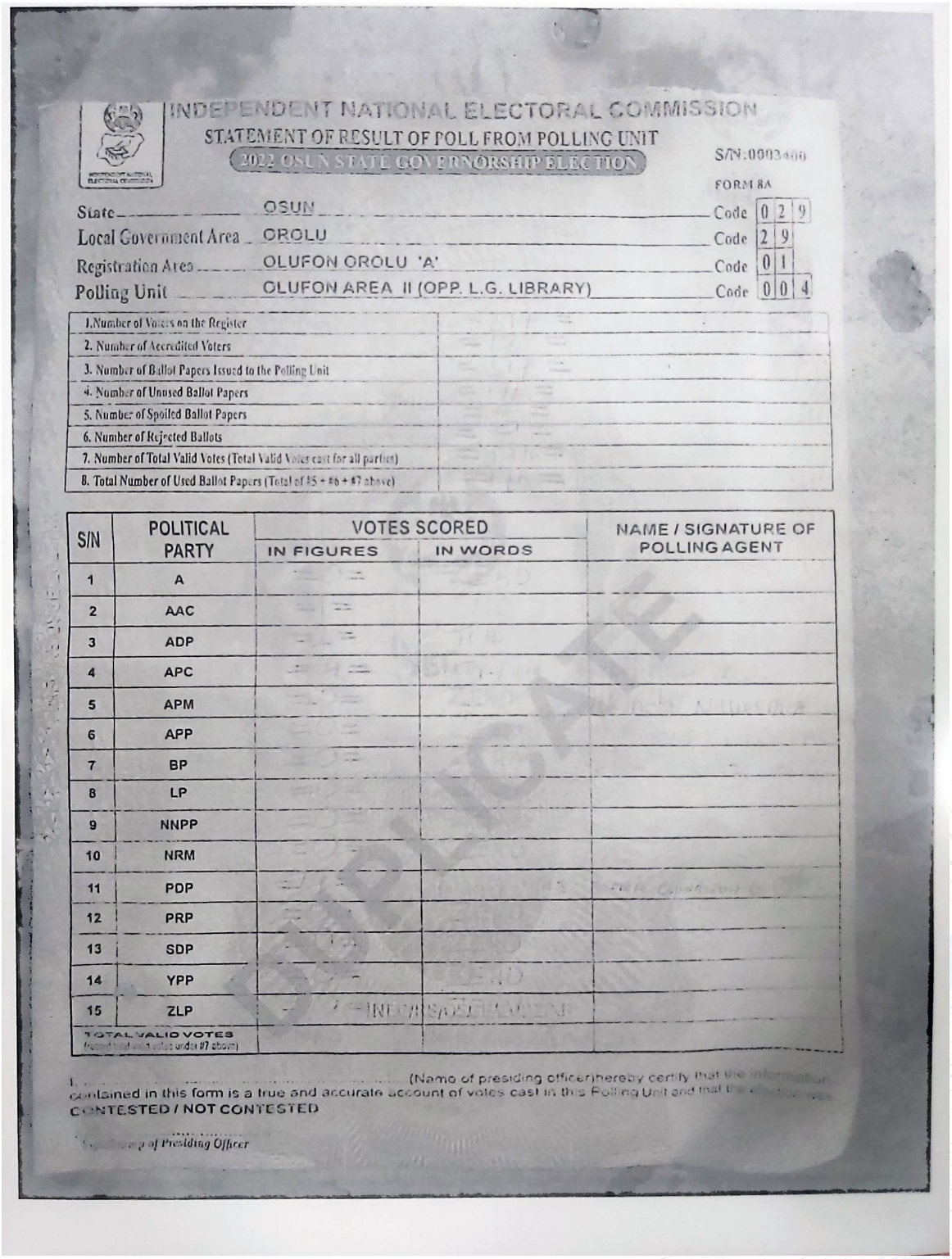
Number of Voters on the Register	360
Number of Accredited Voters	155
Number of Ballot Papers issued to the Polling Units	360
Number of Unused Ballot Papers	205
Number of Spoiled Ballot Papers	
Number of Rejected Ballots	10
Number of Total Valid Votes (Total Valid Votes cast for all parties)	145
Total Number of Used Ballots Papers (Total of #5 + #6 + #7 above)	155

S/N	POLITICAL PARTY	VOTES SCORED IN FIGURES	VOTES SCORED IN WORDS	NAME/SIGNATURE OF POLLING AGENT
1	A			
2	AAC			
3	ADC			
4	ADP	2	TWO	
5	APC	88	EIGHTY-EIGHT	MUHAMMED RAMOMI
6	APGA			
7	APM			
8	APP			
9	LP			
10	NNPP			
11	NRM	1	ONE	
12	PDP	22	TWENTY-TWO	TAOFEEK
13	PRP			
14	SDP	32	THIRTY-TWO	
15	YPP			
16	ZLP			

Blury uploaded forms



INDEPENDENT NATIONAL ELECTORAL COMMISSION

STATEMENT OF RESULT OF POLL FROM POLLING UNIT

2022 OSUN STATE GOVERNORSHIP ELECTION

S/N:0003400

FORM 8A

State OSUN Code 0 2 9

Local Government Area OROLU Code 2 9

Registration Area OLUFON OROLU 'A' Code 0 1

Polling Unit OLUFON AREA II (OPP. L.G. LIBRARY) Code 0 0 4

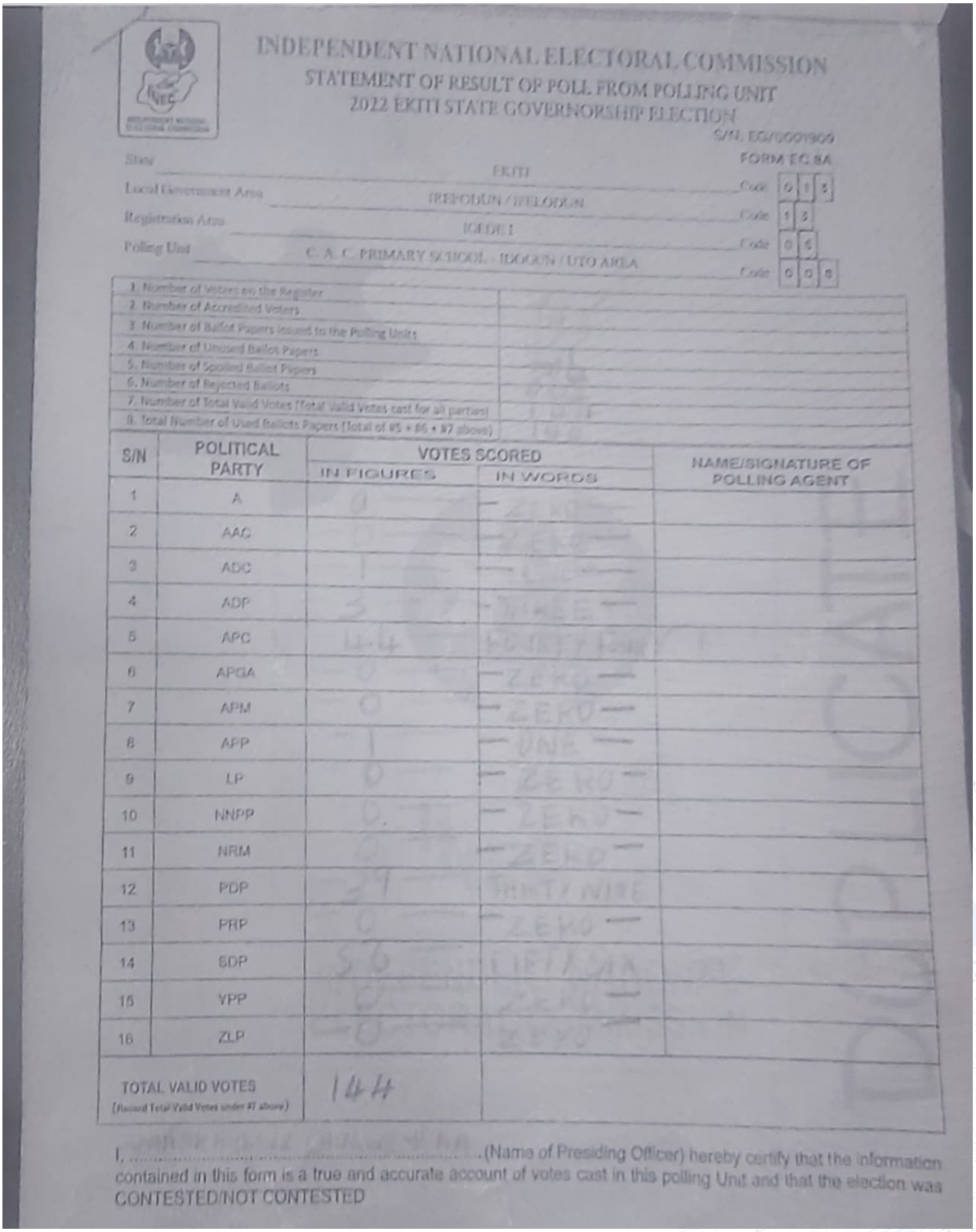
1.Number of Voters on the Register	
2. Number of Accredited Voters	
3. Number of Ballot Papers Issued to the Polling Unit	
4. Number of Unused Ballot Papers	
5. Number of Spoiled Ballot Papers	
6. Number of Rejected Ballots	
7. Number of Total Valid Votes (Total Valid Votes cast for all parties)	
8. Total Number of Used Ballot Papers (Total of 5 + 6 + 7 above)	

S/N	POLITICAL PARTY	VOTES SCORED		NAME / SIGNATURE OF POLLING AGENT
		IN FIGURES	IN WORDS	
1	A			
2	AAC			
3	ADP			
4	APC			
5	APM			
6	APP			
7	BP			
8	LP			
9	NNPP			
10	NRM			
11	PDP			
12	PRP			
13	SDP			
14	YPP			
15	ZLP			
TOTAL VALID VOTES				

I ..... (Name of presiding officer) hereby certify that the information contained in this form is a true and accurate account of votes cast in this Polling Unit and that the ..... was CONTESTED / NOT CONTESTED

Signature of Presiding Officer

Blury uploaded forms



INDEPENDENT NATIONAL ELECTORAL COMMISSION
STATEMENT OF RESULT OF POLL FROM POLLING UNIT
2022 EKITI STATE GOVERNORSHIP ELECTION

S/N: EG/0001900
FORM EC 8A

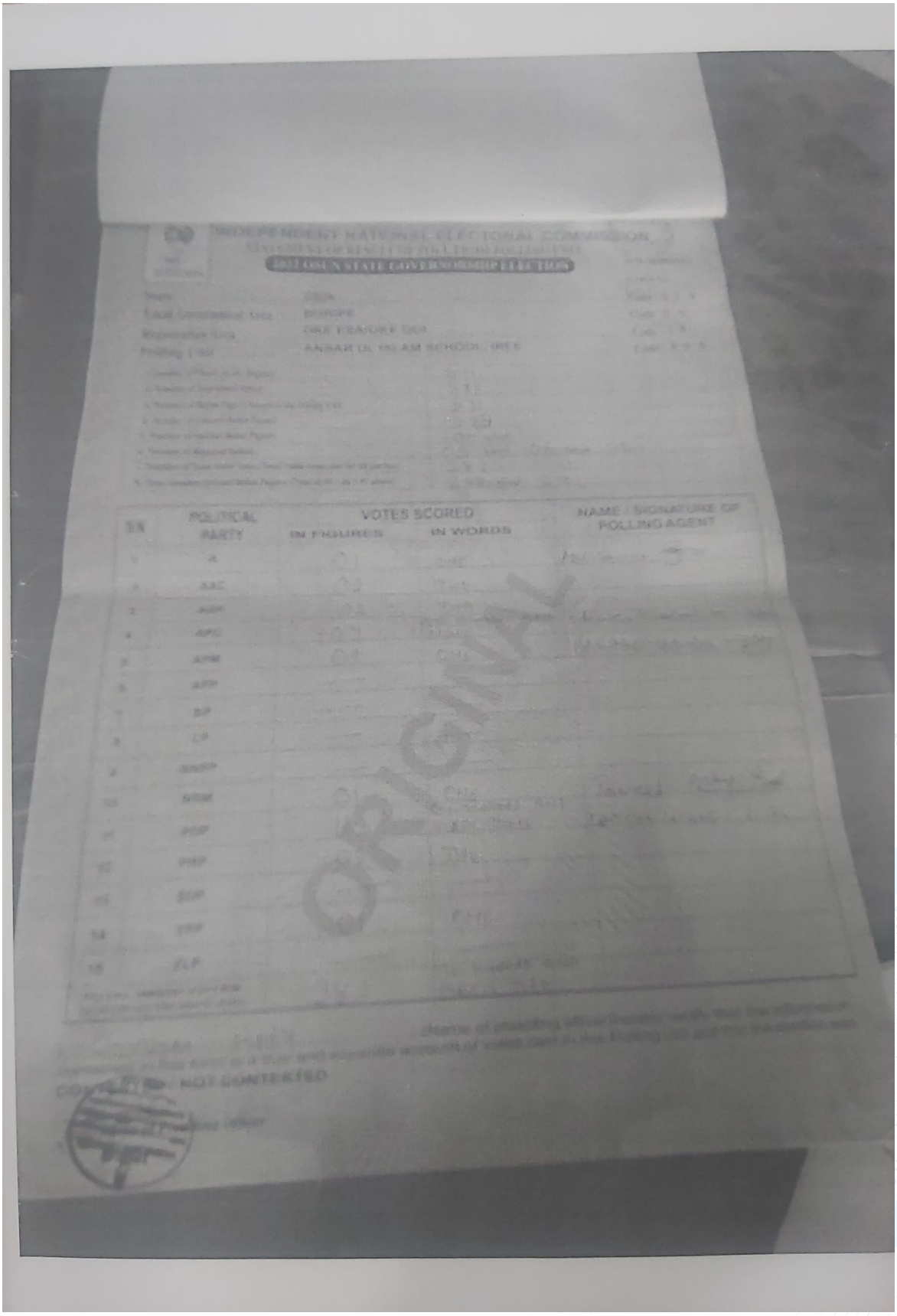
State: EKITI
Local Government Area: IREPODUN / IFELODUN — Code: 0 1 5
Registration Area: IGEDE I — Code: 1 3
Polling Unit: C. A. C. PRIMARY SCHOOL - IDOGUN / UTO AREA — Code: 0 5 0 0 8

1. Number of Voters on the Register	
2. Number of Accredited Voters	
3. Number of Ballot Papers Issued to the Polling Units	
4. Number of Unused Ballot Papers	
5. Number of Spoiled Ballot Papers	
6. Number of Rejected Ballots	
7. Number of Total Valid Votes (Total Valid Votes cast for all parties)	
8. Total Number of Used Ballots Papers (Total of #5 + #6 + #7 above)	

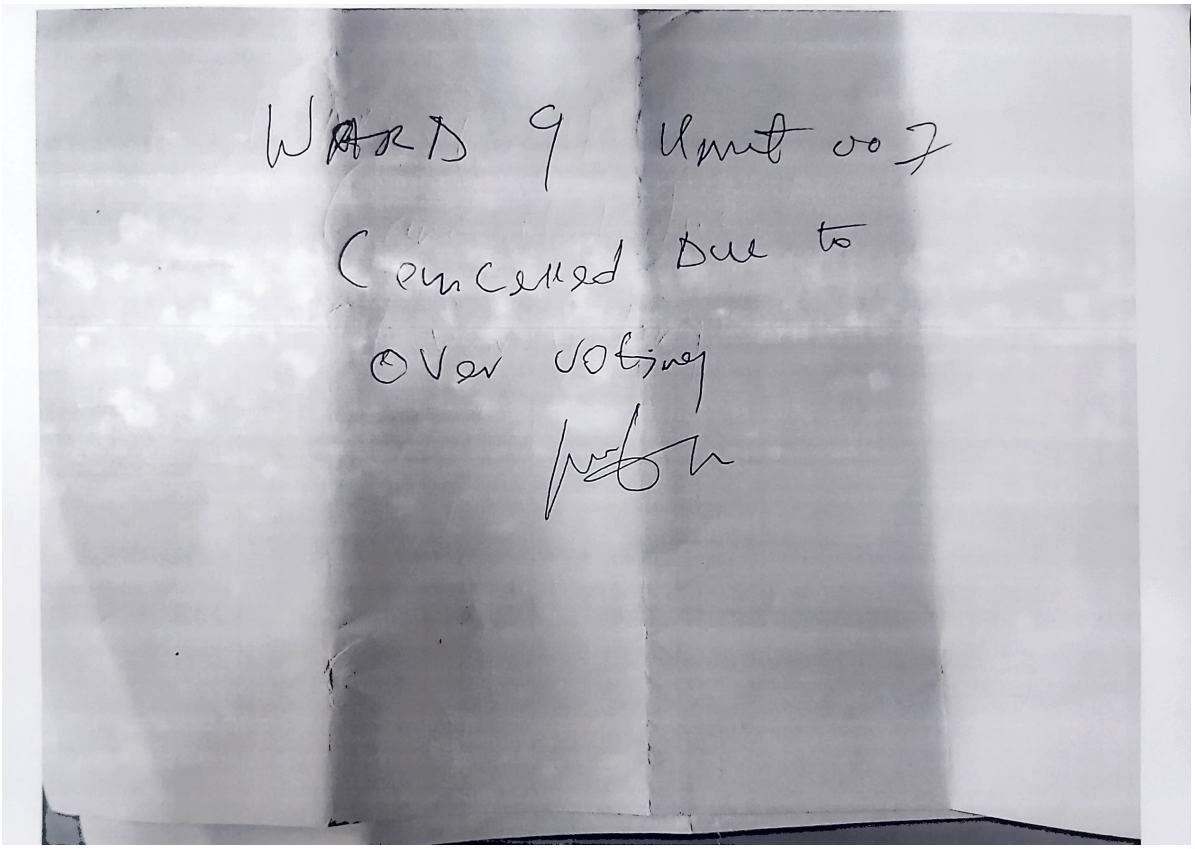
S/N	POLITICAL PARTY	VOTES SCORED IN FIGURES	VOTES SCORED IN WORDS	NAME/SIGNATURE OF POLLING AGENT
1	A	0	ZERO	
2	AAC	0	ZERO	
3	ADC	1	ONE	
4	ADP	3	THREE	
5	APC	144	ONE FOUR FOUR	
6	APGA	0	ZERO	
7	APM	0	ZERO	
8	APP	1	ONE	
9	LP	0	ZERO	
10	NNPP	0	ZERO	
11	NRM	0	ZERO	
12	PDP	37	THIRTY NINE	
13	PRP	0	ZERO	
14	SDP	56	FIFTY SIX	
15	YPP	0	ZERO	
16	ZLP	0	ZERO	
TOTAL VALID VOTES (Record Total Valid Votes under #7 above)		144		

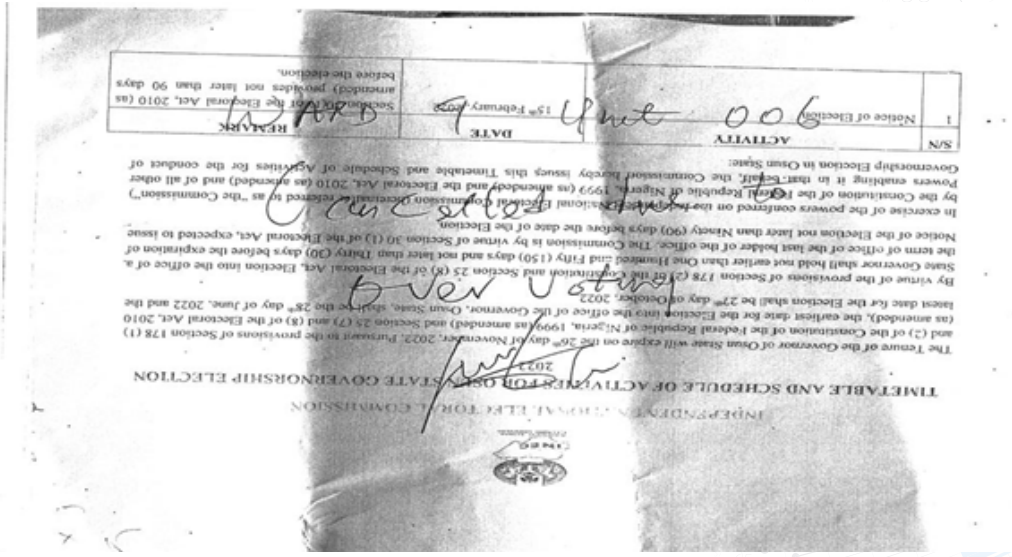
I, ... (Name of Presiding Officer) hereby certify that the information contained in this form is a true and accurate account of votes cast in this polling Unit and that the election was CONTESTED/NOT CONTESTED

Blury uploaded forms



Wrongly inputted or omitted data





Yiaga Africa

Democracy, Governance & Development
www.yiaga.org

Yiaga Africa

No 3, Road 17, Frantz Fanon Crescent, 4th Avenue, Gwarinpa, Abuja

E: Info@yiaga.org

P: +234 903 800 7744

W: www.yiaga.org

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