



# 5TH ANNUAL MEETING

AUTHENTICITY AND ACCURACY  
IN ELECTION ADMINISTRATION

**ASSESSING THE ROLE OF VOTER ID AND TECHNOLOGY**

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**June 18-20, 2019**

# OBJECTIVES

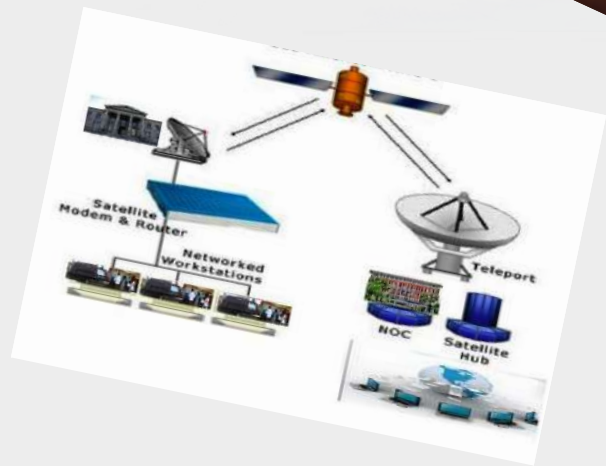
- ✓ Situate the use of technology in African elections
- ✓ Examine Voter registration and voter ID in Africa
- ✓ Mirror Africa voter ID and election technology vs. the world.
- ✓ Identify challenges to election technology
- ✓ Explore available opportunities to strengthen voter ID and election technology.



# ELECTIONS ADMINISTRATION WITHOUT AUTHENTICITY AND ACCURACY



# USE OF ELECTION TECHNOLOGY AFRICA 2019



# USE OF ELECTION TECHNOLOGY

## AFRICA 2019

1. Voter Registration
2. Production of Voter Registration Cards
3. Voter verification and validation (E-Day)
4. Transmission of Results
5. Voter online verification
6. Voter education/information
7. Electoral constituency delimitation
8. EMB communication and finance
9. Presenting the election story
10. Monitoring threats and risks (Aggie, ERM Tool-IDEA)
11. Election campaigns voter reach out
12. Political party databases
13. Candidate registration



# GENERAL INCENTIVE OF BVR IN AFRICA

1. Restore and promote stakeholder trust and prevent potential disputes and violence
2. Attract regimes democratic legitimacy and funding

## Break-even Reduction in Probability Violence, by Expected Cost of Post-Election Violence

Country	Cost of biometric technology	Break-even reduction in probability of post- election violence (percentage points)			
		By the cost of post-election violence (as a share of GDP)			
		1%	5%	10%	105%
Benin	\$12,950,000	17.76	3.55	1.78	0.17
Burkina Faso	\$23,000,000	21.44	4.29	2.14	0.20
Cameroon	\$15,000,000	5.07	1.01	0.51	0.05
Cote d'Ivoire	\$266,000,000	No break- even	21.38	10.69	1.02
DRC	\$58,000,000	22.45	4.49	2.24	0.21
Ghana	\$70,000,000	16.77	3.35	1.68	0.16
Kenya	\$106,200,000	19.23	3.85	1.92	0.18
Mali	\$14,300,000	13.07	2.61	1.31	0.12
Nigeria	\$200,000,000 <sup>21</sup>	3.52	0.70	0.35	0.03
Tanzania	\$72,000,000	14.98	3.00	1.5	0.14
Sierra Leone	\$18,600,000	52.69	10.54	5.27	0.50
Zambia	\$14,700,000	6.20	1.24	0.62	0.06

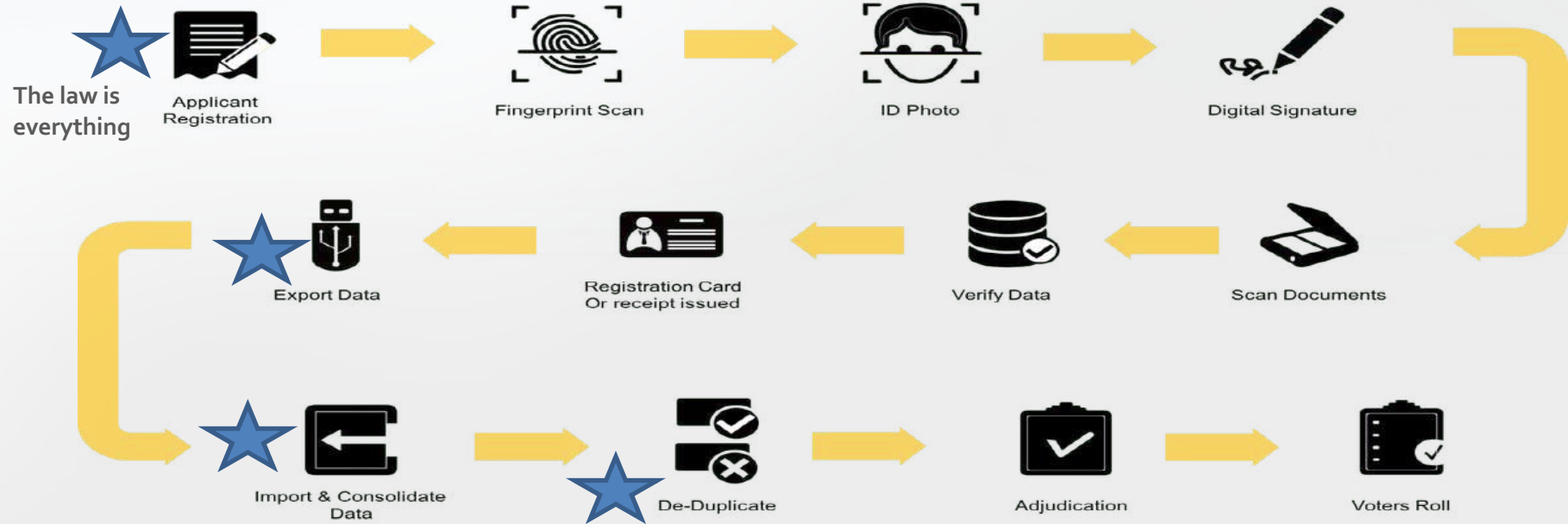
Alan Gelb and Anna Diofasi



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# BIOMETRIC VOTER REGISTRATION



- Paper Voter Roll with biometric data
- Electronic Voter Roll
- Online for Verification



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# VOTER EXPERIENCE AND E-DAY TECHNOLOGY

Capture voter's fingerprint before voting



Voting day

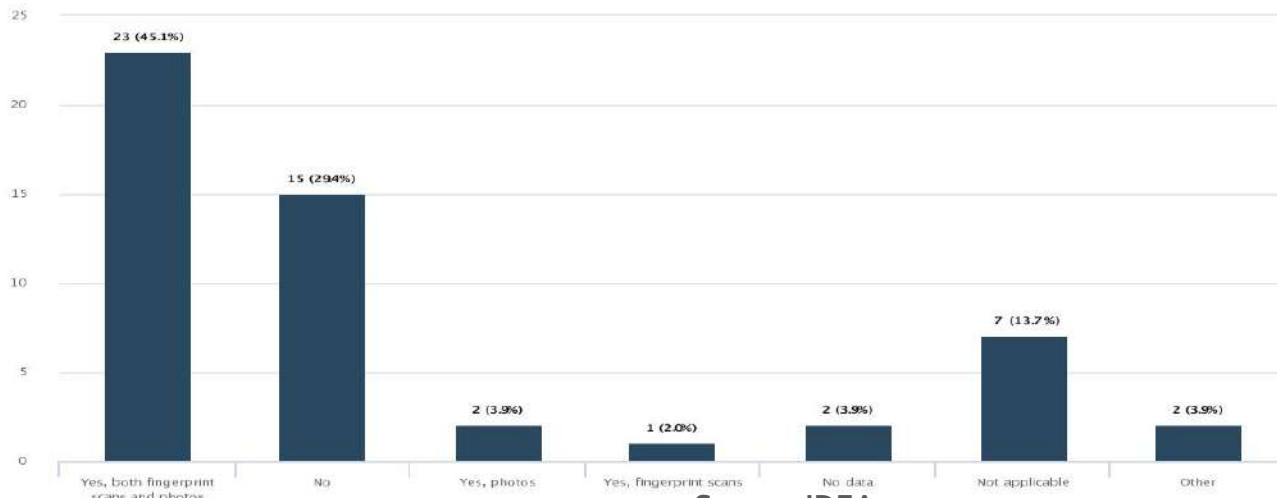




# 2019 BIOMETRIC VOTER REGISTRATION IN AFRICA

If the EMB uses technology to collect voter registration data, is biometric data captured and used during registration?

Africa  
ICTs in Elections Database – Voter registration and identification  
Data for 51 countries



Source: IDEA

How is the national electoral register created?

Value	Count
Extracted from a population/civil registry Gabon, Egypt, SA., Benin	7 (14.0%)
Created by the EMB using its own data collection and/or other sources of data	40 (80.0%)
Some combination of both (see comments) Angola, Mali, Senegal	3 (6.0%)
No data	0 (0.0%)
Not specified	0 (0.0%)
Other	0 (0.0%)
Total	50
Missing data (Somalia)	1
Grand total	51

This data sets tells us the following:

- Africa trust EMBs to do voter registration as oppose to extracting voter information from population/civil registry
- Less than 50% of African EMBs use the combination of fingerprint, photo, & signature capture to produce voter cards
- More than 80% of African nations do not trust their civil registry for electoral purposes or lack the political will to modernize the population/civil registry or the national ID data systems

# E-DAY, VOTER VERIFICATION, TABULATION

Is the biometric data used in voter identification at polling stations?		Does the country provide individual online voter registration/polling assignment checks?		Are official election results processed by an electronic tabulation system?	
Value	Count	Value	Count	Value	Count
<b>Yes</b>	22 (44.9%)	<b>No</b>	27 (55.1%)	<b>Yes</b>	25 (50.0%)
<b>No</b>	25 (51.0%)	<b>Yes, confirmation of registration using online interface</b>	18 (36.7%)	<b>No</b>	24 (48.0%)
<b>No data</b>	2 (4.1%)	<b>Yes, assigned polling station using online interface</b>	12 (24.5%)	<b>No data</b>	0 (0.0%)
<b>Not specified</b>	0 (0.0%)	<b>Yes, confirmation of registration using mobile phone</b>	9 (18.4%)	<b>Not specified</b>	0 (0.0%)
<b>Not applicable</b>	0 (0.0%)	<b>Yes, assigned polling station using mobile phone</b>	8 (16.3%)	<b>Other</b>	1 (2.0%)
<b>Other</b>	0 (0.0%)	<b>Total</b>	49	<b>Total</b>	50
<b>Total</b>	49				

If electoral register is created by the EMB, what type of technology is used for collecting registration data? **80% of EMBs collect data**

Scanning technology for processing registration forms (Optical Mark Recognition or Optical Character Recognition (Botswana, Burkina Faso, Liberia, Namibia	8 (15.7%)
Digital voter registration kits/computers, off-line (Cameroon, Comoros, Cote d'Ivoire, Kenya, Ghana, Guinea, Malawi, Nigeria, Sierra Leone	18 (35.3%)

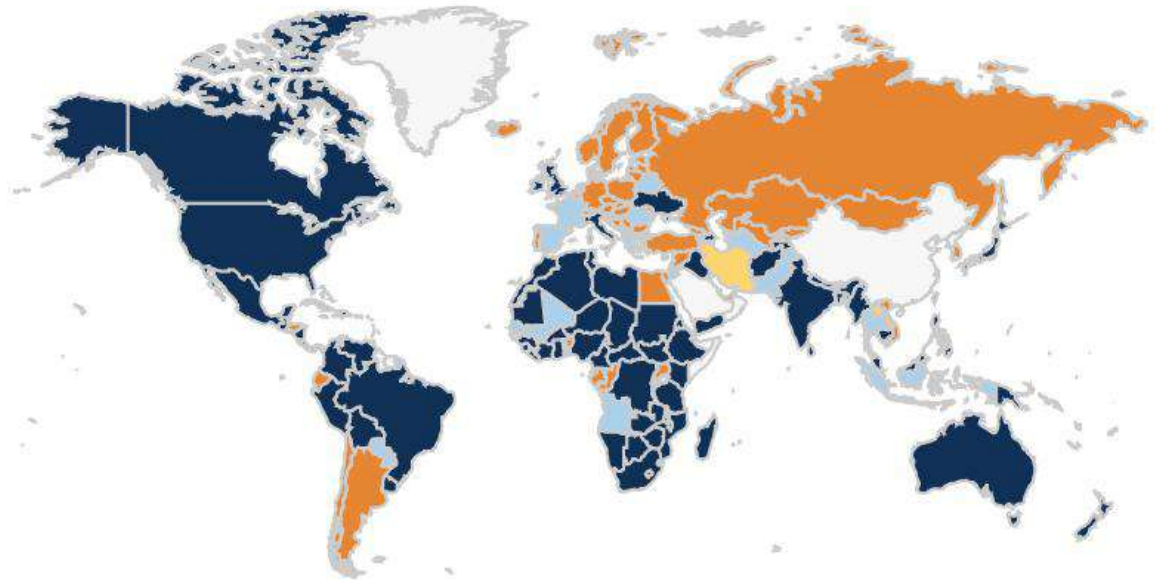


# AFRICA VS THE WORLD

How is the national electoral register created?

ICTs in Elections Database – Voter registration and identification

- Created by the EMB using its own data collection and/or other sources of data
- Extracted from a population/civil registry
- Some combination of both (see comments)
- Other
- No data



Source: IDEA



# AFRICA VS THE WORLD

Continent	Extracted from a population/civil registry	Created by the EMB using its own data collection and/or other sources of data			No data	Not specified	Other	Countries researched
		Some combination of both (see comments)						
Africa	7 (14.0%)	40 (80.0%)	3 (6.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	50	
Americas	5 (20.0%)	17 (68.0%)	2 (8.0%)	1 (4.0%)	0 (0.0%)	0 (0.0%)	25	
Asia	14 (32.6%)	18 (41.9%)	9 (20.9%)	0 (0.0%)	0 (0.0%)	2 (4.7%)	43	
Europe	32 (72.7%)	5 (11.4%)	7 (15.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	44	
Oceania	0 (0.0%)	12 (92.3%)	1 (7.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	13	
<b>Total</b>	<b>58</b>	<b>92</b>	<b>22</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>175</b>	

Source: IDEA



# AFRICA VS THE WORLD

Election cycle	Africa	Europe	USA
<b>Pre-election period</b>	BVR / manual voter registration	Population/civil registry	Online VR / MVA / SSA/ AVR/ Same-Day Registration
<b>Pre-election period</b>	Online verification	Online verification	Online verification
<b>Election Day</b>	<b>Voter list/ biometric verification</b>	<b>Poll books/Paper</b>	<b>E-Day poll book</b>
<b>Election Day</b>	<b>Voter card / strict ID laws</b>	<b>No voter cards/ strict ID law</b>	<b>No voter cards/Flexible ID laws</b>
<b>Election Day</b>	Paper ballots	Electronic and paper ballots	Electronic voting/paper trail
<b>Election Day/post election</b>	Manual transmission /Electronic-days after	Electronic transmission of results / same day	Electronic transmission of results / same day

# CHALLENGES IN AFRICA

## 1. Availability of Funding and consistency / Infrastructure

- Life cycle of technology is 1 to 3 elections
- Maintenance in between election
- Cyber security tasks
- Corruption in procurement
- Capacities

## 2. Transparency, testing, certification, and post election audit

- Feasibility on appropriateness
  - Demonstration
  - User interface and accountability
- Security (use to be hardware, now its more about software)
- Training                      Timing / Consensus





# RECOMMENDATIONS

- 1) Needs Assessment:** Conduct a thorough assessment to make a decision about where in the election cycle to introduce technology and define your objectives
- 2) Research, Study and Consult with Key Stakeholders for Appropriateness:** Visit other countries, learn, analyze, consult with experts, and explain to stakeholders on decision.
- 3) Plan for Time:** Develop a timeframe for implementation, acceptable with key stakeholders and developing rationales for implementation. Ensure a transitional plan with minimum disruption.
- 4) Work with Executive and Legislature:** Sell project to government. Understanding legislative calendar, use a legislative salesman, get hearings, draft legislation.
- 5) Work with International Election Assistance Agencies and Funding Partners:** Solicit support from international partners.
- 6) Develop Request for Proposal (RFP) and Procure:** The request for RFP is your first, last and best chance to get the technology and system right. The system is never better than the RFP. Its either you manage the vendor/service provider or they manage you.



# RECOMMENDATIONS

- 7) **Define Roles and Responsibilities:** Know who does what and why. Without clearly defined roles and responsibilities problems will occur. Effective training can be very costly.
- 8) **Ensure Testing and Certification:** Know the “known unknowns” such security, accessibility, auditability, usability, convenience, transparency and testing requirements.
- 9) **Conduct Post Election Audits:** Conduct audits and report on its effectiveness to stakeholders
- 10) **Involve the Academia:** Stakeholder perception in the work we do is at best assessed by the academia. Elections in the US has been revolutionized because of research conducted by state universities in the U.S.
- 11) **Collect and Preserve Data:** Election administration is data driven. Without data we cannot have good and sustained policy decisions or legislation.





# TAKE AWAY

- ❖ Voter ID generated through a biometric civil registry is cost effective for EMBs, enhance accuracy and provides for currency if actively and effectively maintained.
- ❖ Using voter ID card for multiple purposes increases its value, effectively increases turnout.
- ❖ Voter ID is useful when voter registration is made accessible to citizens.
- ❖ Learning and sharing experiences provides avenues for improvement.
- ❖ The rapid penetration and use of internet tell us that the future may be block chain voting with digital voter ID.
- ❖ Nothing can be achieved without the political will of the government.



# Thank you

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