

Congo Research Group Election Brief N°1

THE ELECTRONIC VOTING CONTROVERSY IN THE CONGO

The voting machine surprise

On March 15, three of the major opposition parties reaffirmed their commitment to elections in 2018, with three major conditions: increased involvement of an international group of electoral experts, an audit of the voter register, and abandoning plans to use an electronic voting machine.

In the coming weeks, the Congo Research Group (CRG) will be examining other aspects of the electoral process. For now, we focus on the controversial “machine à voter” – what is it and why has it become such an issue of contention?

In August 2017, the Congolese electoral commission (CENI) brought back three electronic voting kits from a trip to South Korea, intending to test them during the special elections for governors on August 26. The president of the CENI, Corneille Nangaa, [announced](#), “this kit... offers security guarantees and will allow the country to save the excessive costs that will arise due to the organization of the various elections.” However, according to sources present during the first demonstration, two of the three kits malfunctioned, leading the CENI to cancel their use during the gubernatorial elections. Nonetheless, on September 5, Nangaa officially announced that they were planning on using the machines for elections.

Nangaa’s presentation of the voting machines came as a surprise, in particular because Article 237 of the electoral law bars the adoption of the electronic vote in the middle of an ongoing electoral process. Moreover, the electoral calendar – which Nangaa had published on November 5 2017 – made no reference to electronic voting and appears to still assume the use of paper ballots. Facing criticism, the CENI changed the name to “[semi-electronic vote](#),” then to “voting machine,” and most recently to a “ballot printing machine.” Electoral experts contacted by CRG confirmed, however, that this kind of system corresponds to international definitions of electronic voting.¹

But it was not just the name of the kit that stirred controversy. NGOs and opposition parties quickly rejected the use of the machine:

- Two prominent Congolese NGOs, Agir pour des élections transparentes et apaisées (AETA) and l’Observatoire de la dépense publique (ODEP) [rejected](#) the voting machine, arguing that it would cost three times as much as a paper vote, that it would delay elections, and that it would undermine transparency. Jonas Tshiombela, the coordinator of a civil society umbrella organization, [made similar points](#) in his criticism.

¹ See also: IFES, NDI, *Implementing and Overseeing Electronic Voting and Counting Technologies*, USAID, 2013; and Organization of American States, “A Manual for OAS Elections Observation Missions,” October 2007.



Figure 1: Professors from the University of Kinshasa try out the voting machines on March 21 2018. (Photo: @cenirdc)

- Numerous opposition leaders, including Eve Bazaiba (MLC), Vital Kamerhe (UNC), Felix Tshisekedi (UDPS), and Martin Fayulu (Ecidé) all [rejected](#) its use due to [legal impediments](#), its violation of the [confidentiality](#) of voters, and the lack of transparency in the procurement of the [machines](#).
- The [United States](#) opposed the innovation so close to the elections, without adequate testing and preparation, and [France](#) and [the Netherlands](#) also expressed their strong reservations.

Nonetheless, the CENI has persisted, suggesting that it will purchase up to 107,000 voting machines, one for each of the 84,000 polling stations and a back-up machine for each of the 23,000 voting centers.

The potential for chaos

The discussion of the voting machines a little over a year before elections raises numerous problems that could create substantial confusion and distrust in the results. It is important to highlight that the only other country in Africa to have used a form of electronic voting was Namibia in its 2014 elections. There, however, the country was prepared well in advance: its election law was changed in 2009 to explicitly allow for

electronic voting, the systems were tested in four local elections in August 2014, as well as in a by-election in November 2014, before being used for national elections on November 28 2014. Namibia is also the size of a small Congolese province, with 1.2 million voters compared to 46 million in the Congo, and has much better infrastructure.

The introduction of the voting machine was justified by the CENI as a simplifying and cost-saving measure. Paper ballots for presidential, national legislative, and provincial elections could be extremely long, comprising hundreds of candidates printed on dozens of pages in some electoral districts. It could also be very costly, as the ballots would have to be printed and then transported to all of the 84,000 polling stations.

It is far from clear, however, whether a voting machine would actually fulfill these objectives. While it gets rid of a lengthy paper ballot, it would also introduce a technology with which most Congolese are not familiar. Voters would use a touch screen, swiping to find their candidate of choice and then tapping on his or her picture or name. Most Congolese, especially in rural areas, do not have smart phones or computers and are not familiar with these kinds of tools. The CENI currently does not have the time or the budget to conduct a countrywide civic education campaign

in this regard. It is not just the electorate that would require education. CENI officials would also have to be trained in a matter of months in the use of 84,000 voting machines.

The risk for technical glitches is considerable. During the voter registration process, numerous machines broke down and took several days to repair. The potential for breakdowns and confusion will be much larger for elections, during which 84,000 machines should be working across the country at the same time. It is also important to note that elections are supposed to take place in December which, in most of the country, is marked with heavy rains. In comparison, Namibia used 2,080 machines, and had 121 technicians and 31 engineers from the manufacturer on call. If the Congo had a similar proportion of technicians, it would have to hire and train over 6,000 before elections take place.

Nangaa has [argued](#) that the voting machines could reduce costs by up to \$100 million. In private demonstrations to political parties, the commission has [apparently](#) even argued that it would save them \$200 million and reduce the transmission of results from 2 months to 2 days. However, the CENI has not published the basis for these calculations, and there are concerns that it has cut costs by reducing the number of polling stations, which could in turn create problems on election day. The CENI has announced that the voting machines would only require 84,000 polling stations to be opened, compared with 126,000 scheduled to be used with the paper ballots. It has not, to our knowledge, justified this decision by conducting trials.

By law, the polls are supposed to remain open for 11 hours. Depending on turnout and the number of functioning machines, voters could have somewhere between 1 minute 17 seconds to 2 minutes, although in a presentation at MONUSCO headquarters in January, the CENI said they were calculating just 1 minute per voter. Without any tests, it is difficult to know whether this is adequate, even if it seems to be extremely tight given that some polling stations will have far more

voters than others, and people have to vote for three elections at the same time, using machines they are unfamiliar with.

It should be noted that the machines' battery life reportedly does not last for more than 36 hours, making any extension of the elections difficult.

The confidentiality of the voting process

The confidentiality of the vote is guaranteed by the Congolese constitution. During the 2006 and 2011 elections, many voters relied on friends, relatives, and electoral officials to help them understand the process. While this posed a challenge to the secrecy of the ballot, the voting machine is liable to aggravate this further. Those providing assistance would probably have to help the voter swipe and tap until they find their candidate, rather than just explaining the process to them. According to the CENI president, the voting machines would not be located behind a curtain or a door, but rather just be in the corner of the room or outside.

Curiously, the December 2017 revision of the electoral law removed a previous disposition that barred anyone from assisting more than one voter. In theory, a local administrative official could be stationed at a polling booth, helping hundreds of voters, thereby influencing their choices.

Transparency

Many of the concerns of the CENI's critics could be assuaged with greater transparency and oversight. Little of this, however, has been forthcoming, either with regards to contractual, technical, or financial questions.

According to the CENI's [budget](#), each voting machine would cost around \$1,500, or around \$160 million for 107,000 machines. According to Congolese law, most public procurement contracts must be submitted to a public tender, which did not happen in this case. Special exceptions can be made to this rule and Corneille Nangaa has [argued](#) that they did not have time to go through a public tender, and that the contract is entirely legal.

The CENI's budget is one of the largest line items in the Congolese budget, and this contract one of the most expensive the country has issued in recent years. Civil society organizations have [lamented](#) the lack of transparency and debate in parliament of the CENI's finances in the past, and a whistleblower [leaked](#) information regarding the questionable use of CENI accounts at the BGFI bank in 2016.



Figure 2: Corneille Nangaa receiving a delegation from A-WEB and a shipment of materials in December 2017. (Photo: @cenirdc)

It is unclear why the CENI chose MIRU Data Systems as the provider for the machines. According to a [report](#) by Jeune Afrique, the first contact with MIRU took place in 2014, when Apollinaire Malu Malu, the former head of the CENI, visited South Korea with a Congolese delegation. Some critics [suggest](#) that the son of Norbert Katintima, the vice-president of the CENI, used his personal connections with MIRU Systems to negotiate the contract, an allegation that Nangaa has firmly [denied](#).

While the CENI has made an effort to show the political elites how the voting machines work, the government has not set up systems that could provide important oversight over this process, as is done in other countries. Examples from other

countries show how involved and lengthy such a process can be:

- In Belgium, parliament sets up an [Independent College of Experts](#), which reviews the software used in the voting machines, has the right to request relevant information from the vendors and may examine the source codes used in the systems.
- In [Pakistan](#), the election commission established a special committee with the NGO International Foundation for Electoral Systems (IFES) to study adopting voting machines.
- In Brazil, electronic voting was incrementally introduced, beginning at the local level in 1996 until it was fully phased in during the 2002 elections. The testing and evaluation of the system was [overseen](#) by the Supreme Electoral Court.

There is apparently only one other country where the same machines are being used: Fiji, where there are only 624,000 voters. Their election commission [decided](#) to test the machines in their trade union and students elections before using them more broadly.

In general, oversight mechanisms should be able to inspect the follow aspects of electronic voting:

- What will the real cost of the poll be per ballot using the voting machine, compared with paper ballots?
- What are the terms of reference for the public tender, and is there an independent evaluation of the tendering process?
- Is the software appropriate for the country and does it comply with local laws?
- How will results be transmitted (Nangaa has said they will be counted manually, but the commission has also [said](#) machines would be equipped with SIM cards and satellite phone capacity)?
- Can Congolese experts and/or legislators inspect the source code (this may raise issues of confidentiality for the company that developed it)?

- Have provisions been made for cybersecurity?
- Are all of the candidates registered in their respective electoral districts in the machines?
- How are the machines stored?
- How are the ballots stored (there are concerns that thermally printed ink will be illegible after weeks in hot and humid conditions)?
- What is the process for replacing a broken machine?
- Can third parties, including political parties and civil society groups, observe the uploading of software and test it at the national and local level before elections?
- Has the memory of the machines been wiped clean to prevent any pre-programmed results?
- Is there a means for an independent audit of the final results, to determine whether the results recorded in the official tabulation are an accurate reflection of the votes registered on the voting machines?

The CENI has not addressed these concerns.

Conclusion

As of the end of March 2018, the CENI had received around 200 machines; it is unclear whether they have signed a contract for the remaining 100,000+ machines. Under pressure from the US government and other donors, the South Korean government and the Seoul-based Association of World Election Bodies (A-WEB), the organization that initially put the CENI in touch with MIRU, have backed away from the project, although the CENI [maintains](#) that there is no turning back from the use of the machines. However, the South Korean government says that MIRU is an independent, private company that they do not control, a position reiterated by the Congolese government. Nangaa has maintained that without the machines, they will not be able to hold elections on time and on budget, a claim that he has also not backed up with any evidence-based testing.

At the very least, the way the machines were procured has prompted deep suspicions and distrust. According to a CRG/BERCI poll in February 2018, 69 percent of Congolese do not trust the CENI to organize free and fair elections. A review of most other countries where a form of electronic voting has been introduced shows that the process usually takes place over several years, with the extensive consultation of a broad array of stakeholders in order to prevent the erosion of public trust. As with other aspects of the voting process—Joseph Kabila’s reluctance to state publicly that he will not stand for another term, for example, or the de facto banning of opposition demonstrations—the government appears to be deliberately courting controversy.

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