The 2011 Electoral Register in the Democratic Republic of Congo is *Significantly* Inflated

« If the elections were a religion, the electoral register would be a sacred object.»[1]

Introduction

The Democratic Republic of Congo (DRC) is at crossroads. Its people will soon have to set the path forward by choosing through democratic means the leaders who will ensure its future for the next five years. In addition, throughout the elections, the people of DRC are expected to strengthen the roots of democracy established since 2006. Hence, it is the responsibility of all citizens who have a great love of peace and justice to help in this quest for democracy.

On May 5, 2011, the International Crisis Group released a report on the DRC electoral dilemma[2]. It blew a whistle on the ongoing preparation of the electoral process and raised serious concerns about the possibilities of violence and / or a post-election conflict in a country where peace is still fragile, if no action plans are undertaken. The report highlighted some failures in the DRC electoral process and pointed out various solutions to preserve peace that has been hardly achieved in the last five years of transition and to permanently exit the country from the endless cycle of crises and conflicts.

As part of its mission and its mandate to inform, educate and support peace efforts around the world, the International Studies Bureau for Peace and Development (ISBPD) initiated a comparative study[3] of 2006 and 2011 electoral lists, in collaboration with researchers from two North American universities.

A statistical-based approach has been taken in that study to analyse the reported data about the enrolment of electors per constituency for the 2006 versus the 2011 national elections. The study aims to determine if the 2011 reported data on voters registration fits the expected growth in number of enrolment per constituency to confirm or dispel doubts in the minds of voters and thus to contribute to the transparency of the electoral process; this is because several reports from civil society and DRC opposition parties have questioned the number of voters reported in some constituencies.

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[1] Ferdinand Kapanga, president of the Institute for Governance and Electoral Education (IGE).

[2] See the International Crisis Group's Africa Report No 175, *Congo: The Electoral Dilemma*, 5 May 2011.

[3] "*The Myths and Truth of the Voter Registration Data for the 2011 election in the Democratic Republic of Congo - An empirical analysis* " by Dr. Aaron L. Nsakanda, associate professor, Sprott School of Business, Carleton University, Ottawa, Canada, and Dr. Moustapha Diaby, Associate Professor, School of Business Administration, University of Connecticut, Storrs, CT, United States, November 16, 2011.

Data Sources

The data used in the study comes from the official reports of the Independent National Electoral Commission (INEC) of the DRC. From 25,696,964 voters in 2006, the number of electors in the electoral register of the DRC has increased to 32,024,640 in 2011, an increase of 6.3 million voters (24.6%) for a population expected to have increased up to 13%, from 60 million to about 67.8 million inhabitants[4] in 2011.

Methodology

The analysis approach used was to resort to a simple linear regression model to determine whether or not a relationship exists between variables and a Student's paired test to determine the extent of the difference between two sets of elections data (2006 and 2011). The linear regression diagnostic tools were then used to detect outliers in the sample, if there are any.

Results

We show in Figure 1 the percentage differences in the number of those enrolled between 2006 and 2011 for each constituency (of 169 constituencies) involved in the electoral processes of 2006 and 2011.

It shows the existence of constituencies in which percentage differences in the number of enrolled between 2006 and 2011 exceeds by far the general trend for all constituencies of the DRC. This is the case for to the city of Lubumbashi which has the highest peak (in terms of percentage differences), followed by the city of Goma, Idiofa, Gungu, and Kamonia respectively.

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[4] There was no scientific census of the Congolese population since 1984. Estimations from the Institut national d'études démographiques in « Tous les pays du monde (2011), *Population & Sociétés*, No 480, July-August 2011.
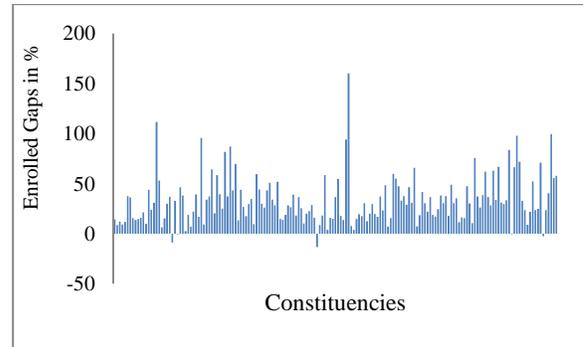

Figure 1. Percentage increase in the number of enrolled between 2006 and 2011 in the DRC

The Student-paired test rejects the null hypothesis that there would be no significant differences between the electoral lists of 2006 and 2011. As shown in Figure 1 in which some constituencies have a percentage increases of 94%, 112% and 160% (case of Goma, Feshi, and Nyragongo, respectively), the Student-paired Student test confirmed with a confidence level of 95% that the number enrolled in 2011 is *significantly* higher than that of 2006.

The linear regression curve (Figure 2) plotted according to the equation $Y_{2011} = 22750 + 0.966Y_{2006}$, and considering a confidence interval of 95% shows also the existence of a few extreme values (outliers) that either fall outside or are closer to the bounds of the confidence interval. These values point out constituencies with exaggerated enrolment in 2011 compared to the number observed in 2006 and the number one would have expected considering the anticipated growth in number of enrolment.
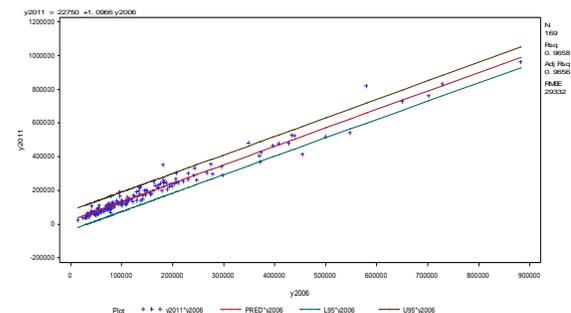

Figure 2. Linear regression curve at 95% confidence interval

In order to identify the outliers that have a great influence on the linear regression curve, a DFITs statistic test was undertaken. The general rule is to flag any observation where the DFITs statistic in absolute value exceeds 2 * sqrt (1 / 169). Nine constituencies (Beni, Kinshasa-2, Kinshasa-4, Dimbelenge, Feshi, Goma, Idiofa, Kamonia and Lubumbashi) have been identified as a result of this analysis as having a *significantly* higher number of enrolled in 2011 and four have a *significantly* lower prospective voters number (Bulungu, Mbuji-Mayi, Masimanimba and Kananga-town).
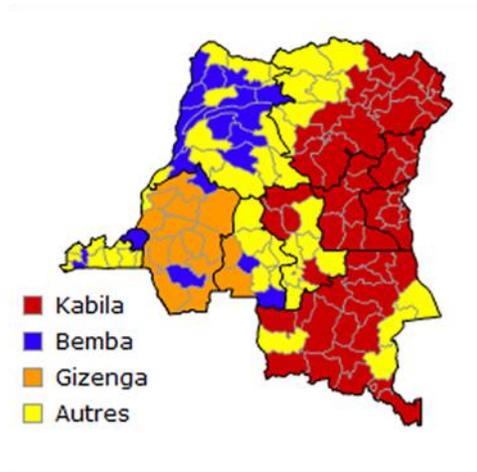
Discussion

All the constituencies showing a *significant* difference in the number of enrolled in 2011 belong to the provinces of North Kivu, Katanga, Kasai, Kinshasa and Bandundu.

The examination of the mapping of the first round of the 2006 elections[5] reveals that most of the constituencies with outliers were either won by Joseph Kabila and Antoine Gizenga or lost by them (e.g, Kinshasa -2, Kinshasa-4).

The cities of Kananga and Mbuji-Mayi, considered as strongholds of the candidate Etienne Tshisekedi, who boycotted the 2006 elections and urged his supporters to do the same, by contrast had a *significantly* lower number of enrolled in 2011 compared to 2006.

Figure 3. Map of the first round of the 2006 presidential elections in DRC

Conclusion

Based on the analysis, it appears that the 2011 electoral register is *significantly* inflated in some constituencies in comparison with that of 2006.

Hence, through this analysis, the ISBPD endorses the conclusions of the report of the International Crisis Group on the DRC electoral dilemma, particularly in regard to external monitoring pre-and post-election.

The ISBPD recommends that witnesses and election monitors be vigilant in provinces (and particularly the constituencies) identified as having a *significantly* inflated voters as they are conducive to fraud. Finally, the international community should ensure, via the United Nations Organization Stabilization Mission in the DRC (MONUSCO), the control of borders, since most of these provinces share borders with DRC neighbouring countries.

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[5] This map can be interactively analysed at the ISBPD website with detailed results of the 2006 election, by constituency.