

Problems in the early voting management procedure and the need for reforms

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I. Current system and problems

Since allegations of fraud have been raised since the April 15 general election, the government and ruling forces have revised the Public Official Election Act several times. They mainly focused on expanding electoral convenience and young voter participation by lowering the age to 18, easing the requirements for overseas polling stations, adjusting voting hours, providing grounds for additional early voting stations, and countless temporary election offices. Legislation has also been passed to compensate for the problems of some election management systems. In other words, on March 26, 2021, the election law was revised to supplement the early voting and mail-in voting systems. The revision mandates that technical security measures of the election information and communication network be taken, CCTV is installed at the storage site of the early voting storage boxes to keep the recorded video files for six months, and allows observers to follow the movement of the boxes once received from the postal office.

Based on this revision, not only the NEC but also the opposition camp's presidential candidate has stepped up, and now they are encouraging the public to actively participate in early voting because the integrity of early voting has been secured. It is necessary to examine whether it is possible to hold this upcoming presidential election on March 9, believing that several of the issues on the early voting system have been solved by installing CCTVs in the early voting ballot box storage site and storing the video files for a certain period. It will accurately analyze whether the current early voting system still has fundamental limitations and problems and suggests a way to correct them. As intellectuals, we sternly warn that the act of holding early voting during this presidential election without solving these issues will not absolve them from responsibility and if it will meet the requirements of the people's right to resist.

II. The wrong practices must be first corrected

Despite the issues, the following practices related to the early voting management system are still ongoing, so it is necessary to correct them immediately:

1. The practice of using "QR code" rather than "barcode" specified in the law on early voting ballots

Article 151 (6) of the Public Official Election Act stipulates that "the serial numbers printed on the ballot papers shall be marked in the form of bar code." Nevertheless, the practice does not use barcodes that can be easily identified with the naked eye on early voting ballot papers but use QR codes. It has been argued that this is not only to make it virtually impossible to

observe and monitor with the naked eye but also to include personal information, including voters' political tendencies, in QR codes and use it to electronically manipulate the votes.

This problem of using QR codes has already become a matter of distrust, beyond the technical difference between QR codes and serial numbers. The National Election Commission should at least declare that it will change the way it manages its operation in a way that complies with the current law and regulations. Nevertheless, if the practice of using QR codes on early voting ballots is repeated, this is in itself a dereliction of duty.

2. After early voting is over, the box is sealed and signed, but the practice of not thoroughly checking for abnormalities in the sealing

This issue is not solved by mandating the installation of CCTVs in the storage area of the early voting ballot boxes and requiring the video files to be saved for six months. This is because there is a possibility that the ballot box may be tampered with during its transportation, and there is a possibility that the CCTV video file may be manipulated on a stationary screen, or the ballot box may be tampered with if the CCTV is not properly operated.

According to the current ballot box management procedure, it is formal to check whether the early voting ballot box seal was tampered with. Moreover, the seal of the ballot storage box is made of a material that is easy to attach and detach, and it does not easily leave a mark when detached.

Therefore, the seal should be replaced with a material that is prone to tearing, and the seal and signature of the observer should be marked in several places. It is also necessary to establish a counting management procedure that mandates thorough verification for the presence or absence of abnormalities on the seals when opened for counting.

In addition, to ensure that CCTV video files were not manipulated, political party observers must be allowed to take turns and watch with their own eyes.

3. The practice of counting the early voting ballots last to induce observers to leave or to be distracted

There is no reason to count the votes if the early voting ballot boxes, which has a high possibility of manipulation, is counted at a late time and when it is easily distracted. Procedures should be established to count the early voting ballots first.

4. The practice of tabulating and announcing only by the NEC's server without counting the number of early voting ballots

The number of early voting ballots should be counted by observers while being monitored, and the NEC should only play a role in collecting those counts.

III. Requirements for introducing a new system

Correcting these bad practices and implementing a new system is appropriate.

5. Changing to a manual counting system to exclude the possibility of electronic manipulation

Suspicious have been raised in the ballot sorting machine that they were wirelessly connected to the NEC's central server and were in communication with each other. There were also reports that the election management laptops were equipped with a LAN card for wireless communication. Nevertheless, the reality is that no detailed and accurate manual counts were implemented after it was sorted by the ballot sorting machine. In fact, during the counting process of the April 15 general election, numerous suspicious circumstances about the operation of the machine were found and pointed out.

In a situation where the possibility of electronic manipulation in the counting process is supported by various circumstantial evidence, it is desirable to abolish the use of the ballot sorting machine and to manually count the votes to restore trust. Developed countries such as France, Germany, Canada, Japan, and Taiwan, have insisted on analog methods like manually counting votes. The only advantage of electronic counting machines is speed, but in a situation where trust is already broken, speed cannot be placed in a superior position to accuracy.

It's necessary to switch to a manual counting method, but if we must use the ballot sorting machine, the order of counting the votes should be limited to simply checking the results after it was put through the sorting machine and the use of counting machines after that.

6. The early voting management changed the system to use a personal stamp, not a printed stamp, on the seal

According to Article 151 (4) of the Public Official Election Act, "A ballot paper shall bear the official seal of the competent Gu/Si/Gun election commission as prescribed by the National Election Commission Regulations. In such cases, the official sea may be substituted by a printed seal." For early voting, Article 158 of the Public Official Election Act states that the official in charge of early voting may affix his or her seal, but apart from this, the NEC prints and replaces the early voting management official's seal in the early voting official column.

By replacing the seal of the early voting management official with a printed seal, it makes it difficult to verify the printed ballots. This practice is a behavior that prevents transparency and verification of elections by directly violating the spirit of the election law, which requires election officials to verify eligible voters and ballots so that ballots using images can be issued anytime, anywhere. In fact, many suspicious ballots have been discovered during the counting process of the April 15 general election and the Supreme Court's recount.

Employees of Japan's election commission spend a considerable amount of time sharpening pencils every election season. This is because it insists on a system that requires voters to handwrite the names of the candidates they want to vote for. In other words, it is not a convincing excuse that a large-scale election can be held only when the early voting official printed seal is used without directly sealing it.

The NEC should revise relevant laws and regulations in such a way that “the sea of the early voting official cannot be replaced with a stamped image.”

7. A serial number unique to the early voting ballot’s printer

After inquiring with the integrated electoral roll, the unique serial number of the printer that prints the early voting ballot should be printed, strictly following procedures on how to manage ballots, and prevent fraudulent early voting ballots to be produced.

According to the National Election Commission, the personal information of early voters (i.e., a serial number indicating how many times they participated in elections) is deleted after election day, so there is no concern about leaking personal information due to the system change.

8. Releasing the number of early voters per polling station

During early voting, the National Election Commission discloses on its website the number of people who participated by time and by local government. For transparency during early voting, the number of voters who participated in early voting “for each polling station” must be disclosed by time.

9. Release the integrated electoral roll

There have been suspicions of “ghost voters,” meaning counting votes made by those who did not vote. To dispel this, the integrated electoral roll must be disclosed immediately after early voting (serial number of each polling station and date and time of participation of early voting; only the location should be disclosed to ensure anonymity) so that early voting participants in the district can be verified.

10. Release the counting chart

The Republic of Korea’s election is a centralized structure in which all information about elections is controlled and managed by the National Election Commission. All the ballot counting chart managed by the NEC should be disclosed, and the original data of the ballot counting results disclosed digitally should also be disclosed so that it can be verified.

11. Disclose all programs related to the source code of the ballot sorting machine

Strong concerns have been raised that the results of the election can be manipulated during the sorting process through program manipulation and external communication.

By disclosing all programs related to the ballot sorting machine, it is necessary to obtain verification to ensure that it is safe from hacking. Strong concerns that program manipulation is possible by external communication cannot be eliminated without verification.

12. State the objectives to preserve evidence of digital data and equipment

The current Public Official Election Act does not state legislative concerns or improvements to the accompanying control device when it comes to computer equipment. While digitizing

for office purposes, the legal control targets are limited to the analog “documents,” justifying the passive response from the NEC and the courts.

Considering that electoral management and the use of electronic devices are inseparable, the technical possibility and ease of manipulating election results, the existence of election irregularities that can’t be confirmed through counting, and the need to confirm the fundamental reason for the final verdict.

The definition of “documents” subject to be preserved as evidence under Article 186 of the Public Official Election Act should be included with “electronic devices and programs,” or it should be amended to include “electronic devices and programs.” “Electronic devices and programs” should also be included in Article 228 in addition to preserving “ballot boxes, ballot papers, and voting records.”

13. Remove communication functions such as external connection ports, wireless LANs, and wireless chips to the counting machine, sorting machine, and control laptop

Taking technical protection measures to strengthen the security of the election’s information and communication network does not prevent the possibility of digital manipulation. State-of-the-art hacking technology is developing every day. Hacking that bypass or overwhelms the technical protection measures prepared by the NEC is possible at any time. To exclude the possibility of digital manipulation, communication features such as external connection ports, wireless LANs, and wireless chips in counting machines, sorting machines, and connected laptops should be removed and must be verified by observers and the public.

IV. Conclusion

As described above, it is a natural demand to fundamentally reform the early voting system and introduce a counting system before the upcoming presidential election is held on March 9 under a proper system and meet the national standards of the Republic of Korea.

Nevertheless, the attempt to hold the presidential election by making temporary revisions to the election law is like trying to fill a cracked dam and maliciously filling it with water. Even if the dam does not immediately collapse, it is obvious that it will trigger suspicions over election manipulation for another five years, driving the nation and the people into a vicious cycle of distrust, conspiracy theories, and witch-hunting.

Despite this situation, it is a very dangerous act to cite and encourage participation in early voting and make remarks or send messages even by the opposition camps. It is compelling to doubt its true motives and purpose. Internal investigation and correction made by the opposition party should be carried out immediately, and voices for fundamental reform of the early voting system need to be strongly made in association with civic groups.

If all these issues are not corrected, it is the voters’ right and the right to resist for the people to systematically boycott early voting.