# The Role of East Java Bawaslu in Increasing Participatory Supervision in the 2024 East Java Regional Election

#### Rangga Wahyu Anugrah<sup>1</sup>, Muhammad Agus Muljanto<sup>2</sup> UPN Veteran Jawa Timur

Article Info	Abstract
Article history: Accepted: 30 January 2025 Publish: 1 March 2025	Democracy is a system of government that places the people at the center of decision-making, with General Elections (Pemilu) as the main mechanism for electing leaders and representatives of the people. Fair, honest, and transparent elections rely heavily on the role of election organizers, especially the Election Supervisory Body (Bawaslu). However, unhealthy political practices, such as money politics and fraud, often undermine the integrity of
<b>Keywords:</b> General Election (Pemilu); Bawaslu; Community Participation; Participatory Supervision.	elections and democracy itself. This study aims to examine Bawaslu's role in election supervision and the importance of community participation in ensuring the success of clean and fair elections. The results show that although Bawaslu has a strategic role in supervision, limited human resources and the vast territory of Indonesia require active community participation. Participatory supervision is the key to narrowing the space for violations and increasing transparency and accountability of elections. In conclusion, public participation in election supervision strengthens the democratic system and ensures the implementation of fairer, honest and transparent elections, thereby reducing the possibility of political manipulation that harms people's sovereignty.
	This is an open access article under the <u>Lisensi Creative Commons Atribusi-</u> <u>BerbagiSerupa 4.0 Internasional</u>

#### *Corresponding Author:* **Rangga Wahyu Anugrah,** UPN Veteran Jawa Timur Email: 22041010243@student.upnjatim.ac.id

1. INTRODUCTION

Indonesia is a country that implements a democratic system, namely a government system that is oriented towards the interests of society. Democracy places the people at the center of all decision and policy making, in contrast to authoritarian systems which tend to be centered on state ideology or the power of a few elites. In a democracy, active participation and community support are important elements so that the government can run effectively and in accordance with the stated goals. Without community involvement, democracy can lose its essence and turn into just a facade to protect the interests of a small elite. When democracy is only controlled by a small group, this condition is actually more like "new authoritarianism" disguised in the name of democracy, but does not reflect its basic principles.[1]

In practice, democracy requires a balance between rights and responsibilities, both from society and the government. The public has a responsibility to actively participate in the democratic process, such as exercising the right to vote, monitoring government performance, and voicing aspirations. Meanwhile, the government is responsible for implementing policies that are fair, transparent and oriented towards the welfare of the people. When these two parties can work together, democracy will grow into a strong system capable of creating positive change for the nation. The implementation of cooperation between the two parties is the general election. General elections are a concrete manifestation of democratic practice, where the public can exercise their voting rights to determine the leaders and representatives of the people who will carry out their mandate in running the government.[2]

The 1945 Constitution of the Republic of Indonesia, stipulates the holding of General Elections (Pemilu) based on article 22E paragraph (1) of the 1945 Constitution of the Republic of Indonesia: "General elections are carried out directly, publicly, freely, secretly, honestly and fairly every five years". Elections are a real form of democracy that reflects the sovereignty of the people by giving the people the opportunity to determine the government through the voting process. As an important element in a democratic system, elections are the main tool to support the democratization process in various countries. Elections play an important role in supporting political competition and forming a legitimate government. As a political instrument, elections can be specifically regulated to achieve certain goals while controlling various political actions[3].

The holding of democratic elections cannot be separated from the role of election organizers as institutions responsible for ensuring that the process takes place in accordance with the principles of direct, general, free, secret, honest and fair mandated by the 1945 Constitution of the Republic of Indonesia. According to Article 1 paragraph (7) of the Law Number 7 of 2017, election organizers are defined as institutions responsible for carrying out general elections. This institution consists of three main entities, namely the General Election Commission (KPU), the Election Supervisory Body (BAWASLU), and the Election Organizer Honorary Council (DKPP). These three institutions carry out their role as a single integrated function in managing the various stages of the election. This election aims to elect members of the People's Representative Council (DPR), members of the Regional Representative Council (DPD), President and Vice President, as well as members of the Regional People's Representative Council (DPRD) through a direct election process by the people. Collaboration between the KPU, BAWASLU and DKPP is a key element in ensuring the implementation of elections with integrity.

Many countries implement a democratic system and make supervision one of the guarantees that elections will be held well. Even though formal institutions are not used for supervision, this means that election supervision is mandated by existing institutions. In Indonesia, election supervision is delegated to formal institutions with the nomenclature Election Supervisory Body (Bawaslu). The existence of the General Election Supervisory Body (Bawaslu) reflects our country's seriousness in holding elections that not only uphold the values of transparency, accountability, credibility and integrity, but also ensure that every stage of the election runs fairly, honestly and in accordance with democratic principles. which is the main foundation of national and state life.

However, elections in Indonesia are often characterized by unhealthy political practices. Election participants compete to attract people's sympathy through various methods, ranging from sweet promises, money politics, intimidation, to cheating and violations. This condition reflects that people are often only used as a tool to win political contests. It is common knowledge that politics in Indonesia requires huge costs. Candidates must be willing to spend a lot of money to give out "free money" in order to get votes. This situation has become something that society considers normal. In fact, many see elections as an opportunity to earn money.[4] What's worse, people who are used to money politics tend to become dependent. They often hope, even openly ask for money from candidates during the election period.

This practice shows how easily people's votes are bought and sold. As a result, violations and fraud in elections are increasingly widespread, thus eliminating the noble values of democracy. This condition illustrates that elections in Indonesia are often only used as a tool to gain power by a few people, without paying attention to the aspirations and hopes of the people. Fraud and violations of this kind not only damage the democratic process, but also distance elections from the noble ideals that should be the basis of collective hope.[5]

Forms of violations that are systematic, organized and massive are the main reasons for the importance of involving and encouraging community participation. It is hoped that active involvement from the community can reduce the opportunity for manipulation of the people's vote. This participation also aims to narrow the space for violations that threaten people's sovereignty. By participating in supervising, monitoring and confirming their choices, voters play an important role in preventing election violations that previously might have been carried out freely. One form of general election is the election of regional heads. In realizing democratic regional elections, there needs to be supervision at every stage, therefore there is still fraud, both during the stages up to the voting, which requires supervision to minimize election fraud to maintain the spirit of accountability in general elections.

Supervision at the election stage is not only the responsibility of the Election Supervisory Body (Bawaslu), but also requires active involvement from the community.[6] Public participation in election supervision, known as Participatory Supervision, is a collective effort involving various elements of society to ensure that elections are held in accordance with democratic principles. Participatory supervision is contained in Bawaslu Regulation (Perbawaslu) No. 2 of 2023, this regulation encourages Bawaslu as the regional election organizer to focus on supervision to continue to improve participatory supervision. This is very important considering the mandate of Law Number 7 of 2017 concerning Elections, which requires Bawaslu to carry out supervision throughout Indonesia's sovereign territory. However, with the large area and limited number of election monitoring officers, it is impossible for Bawaslu to work alone. Therefore, community involvement is key in filling oversight gaps, in order to ensure a clean, honest, fair and transparent election process. In this way, community participation not only strengthens the monitoring system, but also encourages a sense of shared responsibility for the sustainability of democracy in Indonesia. [7].

# 2. RESEARCH METHOD

Descriptive qualitative research methods are used to explore and analyze social phenomena that occur in the field in depth. According to Cresswell (2008) in [8] defining qualitative research as a type of research where the researcher relies on the perspective of participants or informants. In the process, researchers conducted in-depth interviews by asking general questions. The data collected is mostly in the form of words or text from participants. Researchers then describe and analyze the data to identify specific themes. In addition, this approach is carried out subjectively and is sometimes accompanied by bias, including attempts to provoke additional questions. Furthermore, Bongdan and Taylor (2013) in [8] states that qualitative research methodology is a type of research that produces descriptive data, both in the form of spoken and written words originating from individuals or observed behavior.

The research location is located at the East Java Province Bawaslu office located on Jl. Puncak Permai Utara II No.21. By using role theory by Siagian (2014) in (Usman et al. 2023) There are 5 indicators listed in the theory:

- a) As a stabilizer, the government has a responsibility to ensure that changes do not trigger social unrest. The government must also maintain national stability so that the policies formulated can be implemented well. This includes planning, programs and implementation of operational activities that run smoothly.
- b) **As an Innovator**, the government develops innovation as a result of creativity. In the context of development management, innovation involves the application of new insights, methods, systems and fresh ways of thinking. The government must also be

able to solve problems effectively and be oriented towards real action to achieve development goals.

- c) As a Modernizer, the government plays a role in encouraging society to develop towards modern life without abandoning traditional values. To achieve this, mastery of knowledge, management skills and competence are required. Apart from that, the transformation of natural resources into added value, as well as a credible and democratic national education system, are also important to produce active and competent graduates.
- d) **As a Pioneer**, the government is expected to provide an example that can be used as an example by the community. This includes high work productivity, fair and disciplined attitudes, sensitivity to culture, the environment and society, as well as sacrifices for the interests of the nation as a whole.
- e) As Executor, the government not only relies on the state and society in development, but also takes full responsibility. This is caused by various obstacles, such as limited capital, insufficient workforce, lack of interest, and security factors, which require direct government involvement in the development process.

# 3. RESEARCH RESULTS AND DISCUSSION

# 3.1.Research result

Bawaslu is an institution that is part of organizing general elections. Bawaslu's position becomes very central when organizing general elections face obstacles related to general elections that are democratic, have integrity and are free from money politics. Innovation and implementation as a pioneer in holding general elections that are fair and with integrity are reflected in the participatory supervision role of the East Java Bawaslu. The participatory monitoring role of the East Java Bawaslu aims to create awareness and prepare the public to be more active in monitoring the election process. Active community involvement is the main key in encouraging accountability in the democratic process.

### Table 1. Bawaslu's Achievements in Conducting Participatory Supervision Socialization

Date	Activity	Location	Target	Achievements
26/09/2024	Realizing the East Java Regional Head Election that is Democratic, has Integrity and is Anti-Money Politics	Aston Sidoarjo	Sidoarjo City General Public	Increase <b>inclusive</b> <b>participation</b> , ensuring that no group is neglected in democratic practice.
21/11/2024	RealizingtheEastJavaRegionalHeadElectionthat isDemocratic, hasIntegrity and isAnti-MoneyPolitics	Royal Hotel & Villa Trawas Mojokerto	Local leaders, community organizatio ns	Develop <b>collaborative</b> <b>partnership</b> between community stakeholders and election supervisors.

04/12/2024	Realizing the	Front One	Youth from	Push youth
	East Java	Tuban	Nahdlatul	involvement and
	Regional Head		Ulama (NU)	preparing young
	Election that is			people for
	Democratic, has			participatory
	Integrity and is			democracy.
	Anti-Money			
	Politics			

# Source: East Java Bawaslu

Based on the table above, East Java Province Bawaslu has implemented its role as organizer of General Elections (Pemilu) which focuses on supervising the implementation of Regional Head Elections (Pilkada). The results of the table above are included in Perbawaslu No.2 of 2023 Article 1 paragraph (11-13) concerning Participatory Supervision. Participatory supervision is a program that was done by the then Bawaslu RI continued by Bawaslu East Java as a supervisory body at the provincial level. Through this program, East Java Bawaslu invites all levels of society to jointly supervise the 2024 regional elections as external supervisors consisting of all stakeholders in society. The role carried out by the East Java Bawaslu has met the intended achievement targets such as inviting marginalized groups, community communities and student organizations through socialization carried out by the East Java Bawaslu.

### 3.2.Discussion

Therefore, researchers analyzed the role of the East Java Bawaslu in increasing participatory supervision in the 2024 Regional Elections. The role of the East Java Bawaslu through the participatory supervision program was measured based on the Government's Role indicator according to Siagian (2003) in [10] consisting of stabilizers, modernizers, innovators, pioneers, implementers.

1. Stabilizer

The role of the government as a stabilizer is to be able to bring about change, so that it does not turn into a social upheaval, let alone a threat to national unity and national unity. [11]. The role of the government as a stabilizer is to maintain the social and political stability of society through strengthening public education. regarding the regional elections, and the most important thing is to involve the community as regional election supervisors to help instill a sense of justice and trust and provide the community with space to actively participate in regional head elections because this is a form of fulfilling the community's democratic rights. According to the Election Supervisory Body (Perbawaslu) Regulation Number 6 of 2024 concerning Supervision of the Election of Governors and Deputy Governors, Regents and Deputy Regents, and Mayors and Deputy Mayors, the East Java Bawaslu acts as an election organizing body that does not take sides with anyone. East Java Bawaslu also has integration in declaring implementation regional elections aparticipatory supervision programs.

Participatory supervision is a form of supervision program that involves active participation from the community or certain parties within the community stakeholders. As a role stabilizer, East Java Bawaslu has implemented points in this role, namely in the form of voter intelligence which has been carried out in several places targeting the community. Like Bawaslu *Goes to Campus* which has been

included in Perbawaslu No. 2 of 2023 concerning participatory supervision, the East Java Bawaslu has implemented voter education outreach with student achievements in the hope of inviting community participation, especially students, to participate in monitoring the progress of the 2024 Pilkada stages. Apart from that, in implementing its role stabilizer East Java Bawaslu also collaborates with marginalized groups of society who are often apathetic about the course of the democratic process in Indonesia. With this outreach, it is hoped that the public will be able to understand the important points in the 2024 Pilkada supervision stages so as to prevent conflict or fraud in the 2024 Pilkada.

Involving the role of the community in a participatory monitoring process is *Goals* The main thing expected by the East Java Bawaslu. By inviting the public, it is hoped that the 2024 regional elections can run effectively and efficiently without any conflict and fraud in the 2024 regional elections.

2. Innovator

According to Siagian in [11] define Innovators are people who can discover new things, new ideas, and new systems during the development process. With the definition above, the East Java Bawaslu's role as a government agency that focuses on organizing regional elections must provide and find new ideas regarding the form of supervision that will be carried out for the benefit of the 2024 regional elections. One thing that has been implemented by the East Java Bawaslu in relation to the role of innovators is to develop the number of participatory supervisions in East Java Province with the aim of assisting the East Java Bawaslu in carrying out supervisory work. One of them is carrying out an innovation called Bawaslu Goes to Campus which aims to improve participatory supervision. this program addressed for students who have the right to vote in the 2024 regional elections to jointly supervise and safeguard the 2024 regional elections [12]. East Java Bawaslu has implemented this program in 3 places, namely Wiraraja University, Sumenep, Jember State University, and Brawijaya University. With this innovative program, the East Java Bawaslu hopes that the role of students in upholding participatory supervision in the 2024 regional elections can be carried out effectively and with integrity.

Apart from that, the role of innovators carried out by the East Java Bawaslu in carrying out its duties and functions in the 2024 regional elections so that they run effectively and integrated namely by carrying out campaigns related to supervision which can be carried out by utilizing information technology in the form of social media. Some of these things have been implemented by the East Java Bawaslu by utilizing social media in the form of Instagram, Twitter, TikTok, etc. With this, the East Java Bawaslu invites all social media users (netizens) to carry out participatory supervision in the running of the 2024 regional elections.

3. Modernization

The role of a modernizer is to create a strong and independent government. To achieve this goal, adequate mastery of knowledge, managerial skills and competence is required. Apart from that, the ability to process natural resources into added value, the implementation of credible national education procedures in producing graduates with optimal performance, as well as a strong and democratic political education system are also key factors [9]. The East Java Province Election Supervisory Agency (Bawaslu) as a modernizer in participatory supervision is to encourage, facilitate and strengthen public participation in election supervision that

is more inclusive, transparent and based on modern technology. As a modernizer, East Java Bawaslu not only carries out conventional supervisory duties, but also innovates with new approaches and tools to make participatory supervision more effective.

One concrete form of modernization carried out by the East Java Bawaslu is the implementation of the Election Monitoring System (Siwaslih) application. Siwaslih is a tool designed to support the supervision of election implementation in Indonesia. This application helps the Election Supervisory Agency (Bawaslu) in monitoring the stages of the election, starting from the voting process, vote counting, to determining results for various public positions such as Governor, Regent and Mayor. The Siwaslih application provides a comprehensive solution for Polling Place Supervisors (PTPS) throughout Indonesia. Currently, this application can only be downloaded via the Google Play Store and is designed for Android-based smartphone devices, making it easier for supervisors to report field findings directly and in real-time.

In implementing the Siwaslih application, the East Java Bawaslu held Technical Guidance (Bimtek) involving all Polling Place Supervisors (PTPS) to harmonize the system content and planning from the Siwaslih application. aside from that as Bawaslu East Java media provides education to PTPS to be able to enforce supervision in each TPS supervised.

#### 4. Pioneer

According to Siagian (2014) in [13] states that Pioneer means the government starts by making innovations in government governance, which clearly shows the belief that the government must be a pioneer in various aspects of national life. As a pioneer in participatory supervision, Bawaslu plays an important role in empowering the community to actively participate in maintaining election integrity. This role not only strengthens the supervisory function but also improves the quality of democracy in Indonesia. By prioritizing education, collaboration, technology and example, Bawaslu is able to create more inclusive and effective election supervision.

The East Java Province Bawaslu has become a pioneer, especially in participatory supervision which carries out real collaboration with existing stakeholders. Education and socialization also cannot be separated from the target topics. East Java Bawaslu in implementing its role as a pioneer. As a concrete step, East Java Bawaslu held various dialogue forums, training and outreach activities aimed at increasing public understanding of participatory supervision. It is hoped that this training will help the community to help each other monitor the running of the 2024 regional elections by implementing a participatory monitoring system.

East Java Bawaslu is also a pioneer who put forward the principle of transparency to maintain the integrity of the 2024 regional elections. East Java Bawaslu ensures that every step taken can be accounted for to the public. This transparency is not only carried out through the announcement of monitoring findings, but also by opening up space for the public to access relevant data and documents. This step gives more confidence to the public that the election process is not only supervised by official institutions, but also by the public directly.

5. Executor

As implementer, the government not only relies on the state and society in development, but also takes full responsibility [9]. Bawaslu (Election Supervisory Agency) of East Java Province as the implementer of election supervision has a big responsibility in ensuring that the election process runs honestly, fairly and transparently. In the context of participatory supervision, Bawaslu acts as the main driver in involving the community to actively participate in monitoring the running of elections, both at the national and regional levels.

In its implementation, East Java Bawaslu held several participatory supervision socializations to invite community participation to take part in all forms of supervision during the 2024 regional elections. East Java Bawaslu has held many of these socializations, even almost in all regions in East Java Province. With this socialization, it is hoped that the public will understand the function of participatory supervision in the 2024 regional elections. All socializations held by the East Java Bawaslu will attract all groups in society, such as disability groups, youth groups, arts activists, and many others.

# 4. CONCLUSION

The conclusion of this discussion is that Bawaslu of East Java Province plays an important role in participatory supervision in the 2024 Pilkada through five main roles: stabilizer, innovator, modernizr, pioneer, and implementer.

- 1. **Stabilizer:** Bawaslu functions to maintain social and political stability by involving the public in election supervision, thereby creating a sense of justice and trust. Programs such as "Bawaslu *Goes to Campus*" aims to educate and invite students to actively participate in supervision.
- 2. **Innovator:** East Java Bawaslu is innovating in supervision by developing new programs, including participatory supervision involving students and utilizing information technology to increase community participation.
- 3. **Modernization:** East Java Bawaslu applies modern technology, such as the Siwaslih application, to make election monitoring easier. This application allows supervisors to report findings in real-time, increasing the efficiency and effectiveness of supervision.
- 4. **Pioneer:** Bawaslu plays a pioneering role in empowering the community to actively participate in election monitoring. Through education and collaboration with various stakeholders, Bawaslu creates more inclusive and transparent supervision.
- 5. **Executor:** As implementer, Bawaslu is fully responsible for ensuring that elections are honest and fair. Through outreach involving various groups of society, Bawaslu seeks to increase public understanding and participation in monitoring the 2024 Regional Election. Overall, the role of East Java Bawaslu in participatory supervision is expected to prevent conflict and fraud, as well as improve the quality of democracy in Indonesia.

# 5. **BIBLIOGRAPHY**

- [1] D. Suparto, *Membangun Kesadaran dan Partisipasi Politik Masyarakat*. CV CENDEKIA PRESS, 2020. [Online]. Available: http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.20 08.06.005%0Ahttps://www.researchgate.net/publication/305320484\_SISTEM\_PEMB ETUNGAN\_TERPUSAT\_STRATEGI\_MELESTARI
- [2] H. Ramayanti, B. Akudra, D. Agustien, S. Wulandari, and Y. M. Sari, "Partisipasi Masyarakat Dalam Memantau Jalannya Pemilu 2024," *Jurnal Pengabdian Masyarakat Indonesia*, vol. 3, no. 5, pp. 635–640, 2023, doi: 10.52436/1.jpmi.1513.
- 94 | The Role of East Java Bawaslu in Increasing Participatory Supervision in the 2024 East Java Regional Election (Rangga Wahyu Anugrah)

- [3] W. Kusuma, B. Permatasari, and R. A. Suntara, "Peningkatan Pengawasan Partisipatif Masyarakat Desa dalam Pelaksanaan Pemilihan Umum Serentak Tahun 2024 melalui Penyuluhan Hukum," *DAS SEIN: Jurnal Pengabdian Hukum dan Humaniora*, vol. 2, no. 2, pp. 93–104, 2022, doi: 10.33756/jds.v2i2.15256.
- [4] H. Fakultas, S. Uin, P. Kiai, H. Saifuddin, and Z. Purwokerto, "Politik Hukum Pencegahan dan Penanganan Politik Uang dalam Pemilu," *Hukum dan Masyarakat Madani*, vol. 11, no. 2, pp. 360–379, 2021.
- [5] M. A. Suryadi, "Pengawasan Partisipatif Masyarakat Untuk Mewujudkan Pemilu Jujur Dan Adil," *Justness : Jurnal Hukum Politik dan Agama*, vol. 3, no. 1, pp. 1–14, 2023, doi: 10.61974/justness.v3i1.40.
- [6] S. Habib, Nofriadi, and W. Alqarni, "PERAN BAWASLU DALAM MENINGKATKAN PARTISIPASI PENGAWASAN MASYARAKAT PADA PEMILU 2019 DI KECAMATAN MEURAXA KOTA BANDA ACEH," *Fisip Usk*, vol. 7, no. 4, pp. 1–16, 2022, [Online]. Available: www.jim.unsyiah.ac.id/Fisip
- [7] A. S. Lubis, *Desain Pegawasan Pemilihan Serentak*. Jakarta: Badan Pengawas Pemilu Republik Indonesia, 2021.
- [8] M. Sobry and M. Pd. I. Prosmala Hadisaputra, *Penelitian kualitatif*, 1st ed., no. c. Lombok: Holistica Lombok, 2020. [Online]. Available: http://www.academia.edu/download/54257684/Tabrani.\_ZA\_2014-Dasardasar\_Metodologi\_Penelitian\_Kualitatif.pdf
- [9] Y. Usman, N. Yusuf, D. Ayu, and R. Wuryandini, "Management Pengelolaan Dana Desa dalam Perspektif Teori Peran," *Jurnal Mirai Management*, vol. 8, no. 2, pp. 41– 47, 2023.
- [10] Y. Usman, N. Yusuf, D. Ayu, and R. Wuryandini, "Pengelolaan Dana Desa dalam Perspektif Teori Peran," *Jurnal Mirai Management*, vol. 8, no. 2, pp. 41–47, 2023.
- [11] Z. K. Rumarey Wattimena, R. Rustadi, and S. Suadi, "Peran Dinas Perikanan Dalam Pemberdayaan Masyarakat Nelayan Dan Implikasinya Terhadap Ketahanan Ekonomi Keluarga Nelayan (Studi Pada Kampung Nelayan Di Kecamatan Bula, Kabupaten Seram Bagian Timur, Provinsi Maluku)," *Jurnal Ketahanan Nasional*, vol. 28, no. 1, p. 51, 2022, doi: 10.22146/jkn.72773.
- [12] N. Rohid, N. Rohid, M. Arifin, H. S. H. Wijoyo, and ..., "Pendidikan Masyarakat melalui Kegiatan Pengawasan Partisipatif di Bawaslu Kabupaten Tuban," *Jurnal Pendidikan* ..., vol. 7, pp. 3736–3741, 2023.
- [13] W. Wasdi, "Peran Pemerintah Desa Dalam Membangun Sumber Daya Manusia Di Desa Pedangkamulyan Kecamatan Bojonggambir Kabupaten Tasikmalaya," *Jurnal Indonesia Sosial Sains*, vol. 3, no. 2, pp. 223–237, 2022, doi: 10.36418/jiss.v3i2.524.