

Government Strategy To Improve Public Acceptance Toward Nuclear Power Plant

Sovian Aritonang* Nining Parlina** Yanif Dwi Kuntjoro***

* Indonesia Defense University

Article Info

Keywords:
*Nuclear Power Plant;
Community acceptance;
The government's strategy.*

Abstract

This research to discuss the Government's strategy to increase public acceptance toward nuclear power development plan. The purpose of this research is to obtain recommendation for government's strategy. It is design as descriptive qualitative one with design research. The results showed there are two strategies, namely; strategies of socialization through counseling and through online media. Based on the research, it is recommended that the government should establish a Coordination Board which is under the command of (under command) specifically in the case of nuclear power plants in Jepara.

Corresponding Author:
sonarira@yahoo.co.id

Jurnal Pertahanan
Volume 4 Nomor 1
Januari-April 2018
ISSN 2087-9415
pp.16-17
©2018 JP. All rights reserved.

Penelitian ini membahas strategi Pemerintah untuk meningkatkan penerimaan publik terhadap rencana pengembangan tenaga nuklir. Tujuan dari penelitian ini adalah untuk mendapatkan rekomendasi strategi pemerintah. Desainnya deskriptif kualitatif dengan desain penelitian. Hasilnya menunjukkan ada dua strategi, yaitu; strategi sosialisasi melalui penyuluhan dan melalui media online. Berdasarkan penelitian tersebut, direkomendasikan agar pemerintah membentuk Badan Koordinasi yang berada di bawah komando (komando) secara khusus dalam hal pembangkit listrik tenaga nuklir di Jepara.

Introduction

National Resilience is an absolute requirement for every sovereign state. According to Park, Seager & Rao (2011), resilience as an alternative strategy for designing and managing (Fiksel 2003; Hollnagel et al 2006; Pettit et al., 2010; Mu et al., 2011), to respond to unknown hazards and unexpected (Klein et al 2003; Zhou et al., 2010). One of the issue among the many strategic issues that emerge in the current National Security is about energy sustainability (Ministry Of Defense, 2013), energy supply security and pricing (Dorian, Franssen & Simbeck, 2006; Migone, 2007; Yergin, 2006; Coaffee, 2008). In particular, the energy sustainability issue that concerns the government and the global community is the availability of energy and electricity resources. By analyzing the fact that electricity demand continues to grow in both border and non-border areas and in various sectors, the development of the electricity sector

needs to be pursued through the construction of new plants.

With the urge to meet the growing demand for electricity, nuclear energy becomes one of the energy sources to be considered in the future. Nuclear energy can be utilized as a large-capacity nuclear power plant (PLTN), in addition to environmentally friendly energy source. Although, it comes with high risk of disaster or radiation leakage, has a deficiency in terms of its environmental contribution (Jun, Kim & Chang, 2009)

According Ardajat (2013), nuclear energy is a logical choice for Indonesia's development nowadays. Previous research has found that significantly those who accept nuclear power as a means to address greater threat of climate change (Bickerstaff et al., 2008; Pidgeon et al., 2008; Teravainen et al., 2011; Corner, et.al, 2011). The reason is with the massive demand for electricity, accompanied by an increasing population; the availability of electricity is very low,

and this might potentially threaten National Security. In juridical terms, nuclear policy has also been established in Law Number 10 of 1997 on Nuclear Power which separates the implementing agency and the regulatory body for the use of nuclear power. Based on the roadmap of PLTN development plan, in 2010 Indonesia should have started the construction phase.

Furthermore, in the National Electricity General Plan (RUKN) 2005-2025 and the National Energy Management blueprint 2005-2025, it is mentioned that the NPP is expected to contribute 4% with 4000 MW power coming from the Muria Peninsula, Jepara, Central Java with the scheduling of NPP first began operating in 2016. Unfortunately, the latest RUKN Draft 2012-2021 has no longer incorporated nuclear power into the national electricity plan, one of the reasons why nuclear is not a national electricity plan is due to public acceptance (Agus, 2013). In line with Kardaya Warnika, Director General of New Renewable Energy and Energy Conservation (EBTKE) until recently the development of nuclear power plants cannot be

implemented because it has not been received by the public (Kardaya, Kompas.com, 2012).

In the survey of the National Nuclear Technology Agency (BATAN), results of the public acceptance level toward the development of nuclear power plants in Indonesia in 2012 are 52.93% agree, while those 24.23% disagree and the remaining 22.83% said they do not know (Batan, 2012).

National surveys cannot determine whether majority of the community agree on the development of nuclear power plants. In this case, it requires further analysis on the acceptance of the community, especially those living close to the potential nuclear power plant compound. In fact, the community living near the compound will be directly impacted if there is a nuclear disaster.

Specific surveys regarding community acceptance in Jepara on nuclear power plants have also been conducted by BATAN in 2011. BATAN reported the level of respondents' approval on Indonesia's plan to build nuclear power plants is

negative. This is due to the public's ignorance of the nuclear benefit, fear, and negative influences from external parties.

Based on the problems as described above, researchers feel this problem needs to be considered. Therefore, the acceptance of society is one important consideration for the Government whether to build nuclear power plant or not. Thus, this research will discuss about government strategy in order to increase public acceptance toward nuclear power plant development in Jepara.

The energy sustainability system is very important for a country like Indonesia. In addition to being able to respond to the dynamics of global (external) energy change as well as independence to ensure the availability of energy (internal). The energy sustainability system refers to the energy development policy pursuant to Energy Act No. 30 of 2007, energy has a role to increase economic activity and National Security.

Based on Clausewitz's theory, states that controls a strategic point, will win the war. Clausewitz's

strategic point is the center of gravity. The theory also states that war evolves over time as technology develops.

At the beginning of technological development, those who mastered the strategic field, will control the territory. In the modern war, energy becomes one of the Center of Gravity (CoG) of a country and if this energy is controlled then it won't take a long time for the country to be controlled by other countries (Sumari, 2013).

This study will relate the concept of consolidation as one strategy that will be recommended. The term "consolidation" is actually one of the intelligence functions in Intelligence Doctrine besides investigation and security. According to Act No. 17 of 2011 (article 6: verse 4) on State Intelligence; the aforementioned function of the rally as meant to consist of efforts, work, activities and actions undertaken in a planned and directed manner to influence the objectives in order to benefit national interests and security.

The third function of consolidation at its core is propaganda. One of the propaganda activities is

psychological operations, including activities to persuade, greet, convince, incite, and war nerves. This psychological operation is called the mind operation or the war of mind because the target is the mind of an individual or society (Hatmodjo, 2003).

In regards to the war of mind, the mass media nowadays, especially electronics provide many benefits in terms of information. It does not rule out the possibility of a mind war within. Information Warfare can be defined as actions taken to achieve information superiority by affecting enemy information, information-based processes, information systems, and computer-based networks (Haeni, 1997).

One of the efforts to influence information is through public opinion. Leonard Doob states that public opinion is the attitude of people about an issue. Something that means an issue or subject matter, about what's going on, what people are talking about, what's hot (actual), what is the target (Doob, 1984). Something actual about an issue, a person, an object, or an institution can be the target that

people are talking about. Including this nuclear issue.

Method

The method used in this research is qualitative method. The reason for using qualitative methods because of community resistance against nuclear power plant in Jepara that is influenced by many factors. Factors causing rejection of nuclear power plant is complex, dynamic, and diverse so that it is impossible to collect data in such social situation by quantitative research methods such as tests, questionnaires, and interview guidelines. In addition, the lack of time and funds also prevented researchers to conduct quantitative research and researchers intend to understand the social situation in depth, find patterns, hypotheses, and theories.

Based on research objectives, this research can be classified as descriptive research. Research is conducted in Jepara regency of Central Java. By visiting key informants resided in several sub-districts in Jepara, especially Keling and Kembang sub-districts. It is because these two districts are the candidate location.

Data collection techniques were conducted in triangulation, ie researchers conducted in-depth interviews, observations, and documentation studies.

Result and Discussion

Based on interviews with key informants, the percentage of public opinion on the NPP development plan in Jepara in Figure 2 are as follows:

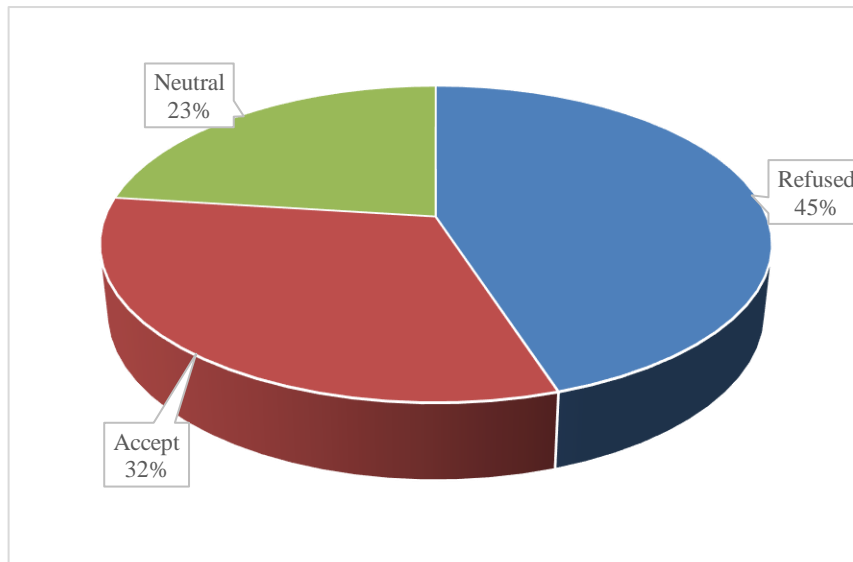


Figure 1 Jepara public opinion on nuclear power plant with 22 respondent

Source: processed data

The many reasons given by the community and stakeholders of Jepara to reject the NPP are subjective.

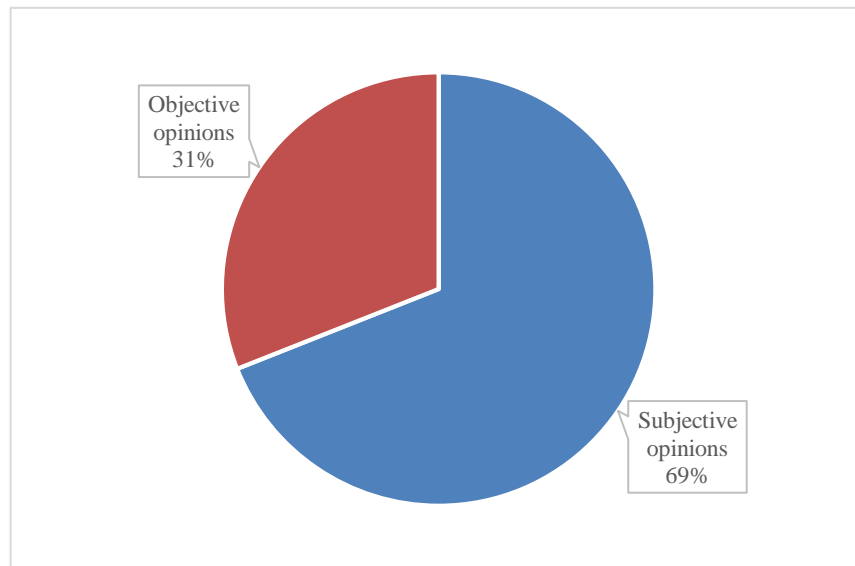


Figure 2. Rejection is subjective and objective

Source: Processed by Researchers from the interview

Subjective opinions tend to judge things on a personal or individual basis and often emotional rather than logic and realistic. Another case with an objective opinion is to prioritize data and existing condition. Objective opinions override personal views and these opinions are far from emotional and individualistic.

On the other hand, the reason for the community to accept nuclear power plants is in general the progress of the Indonesian nation. The military circles also stated so. In addition, the development of nuclear power plants can be used as the effect of shock therapy (deterrent) against other countries.

Generally, the mapping result is that most of the stakeholders reject the NPP development plan. These stakeholders are domiciled in Jepara and those outside of Jepara, but their presence affects the people of Jepara.

Most of the stakeholders who rejected this were NGOs who have strong positions. Therefore, the power and interest in nuclear issues is very high, so it can affect the mass. There are also stakeholders who receive nuclear power plants, but not as many as refused. Stakeholders who receive from among the government such as TNI, BATAN, Regent of Jepara period 2007-2012, Village Chief, and Toga.

Neutral stakeholders regarding nuclear issue are also present in small numbers. However, it spreads to powerful and strong interest stakeholder such as Pemuda Pancasila and the powerful but less interest in nuclear issues as the Regent, vice Regent and local parliament (DPRD). The stakeholder groups whose whereabouts are not clear but contribute to influence the people of Jepara. However, the influence and interest on the nuclear issue is not very high ie, the Al-Jazeera group and the Nurul NGO group.

Once stakeholders are identified, the next step should be to find stakeholders who should be prioritized and look for the linkage among them. A figure of linkage between one stakeholders with another can be observed.

In identifying the nuclear resistance issue, the clear picture of relations between stakeholders can be seen in the Figure below. Larger influence lines are in several NGOs. NGO Marem is known as an organization with vast network. Which means, the NGO has a great power in mobilizing the community to reject the nuclear power plant.

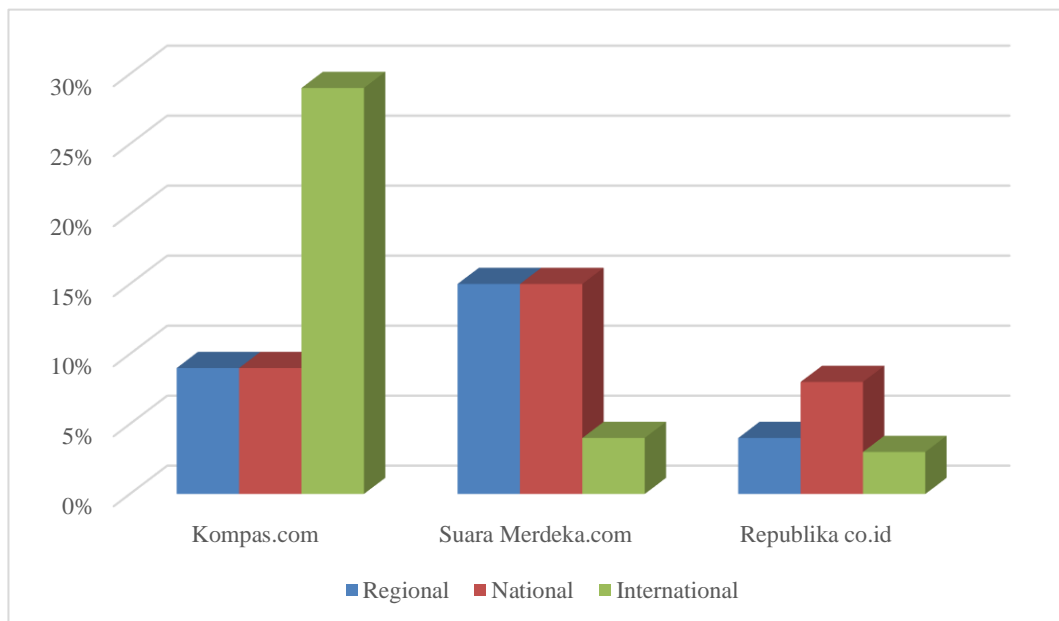
This is in line with previous research conducted by BATAN on the organization that influenced the rejection against nuclear power plants, namely NGO Marem. NGO Marem actions in mobilizing the community are manifested in the form of unique activities

The rejection by these NGOs is normal in the realm of democracy and in the perspective of public policy. Nevertheless, there cannot be one program or government policy that is separated from the pros and cons. However, it becomes quite interesting if we explored further, is it true that the rejection of some community groups is their true voice or stakeholders desire regarding nuclear power plant? Furthermore, is the rejection really the aspiration of local people living in potential location of nuclear power plant construction?

Thus, the identification of stakeholder relationships above is very useful, as consideration of which stakeholders can be engaged into the consolidation strategy. In addition, nuclear issues are important to analyze. This as a reference material to arrange community mobilization for the acceptance of nuclear power plant.

Based on researchers' observation on various internet pages (online), most of the coverage of nuclear power plant is on the news, especially in the **online newspaper**. The online compass media (www.kompas.com), provides the

largest portion of news on nuclear power plants in 2011 after the Fukushima incident compared to Suara Merdeka (www.suaramerdeka.com) and Republika in (www.republika.co.id).



Graphic 1. Reporting on nuclear issue in 2011

Source: Processed data

Kompas.com publish more about radiation in particular the Fukushima radiation leakage. There is always news about the development of Fukushima nuclear power plant almost every month. Another findings is Suaramerdeka.com which publish more about the rejection of the

community in Jepara against nuclear power plant. Meanwhile, Republika.com reporting about the community's rejection of nuclear power plant but in less publication.

From the field findings, the researcher found conclude that the rejection case against nuclear power

plant construction in Jepara indicated that public opinion becomes the center of gravity.

The researcher's view that opinions can be the center of gravity in this issue because opinion has a powerful influence in decision-making and policy. Which means, opinions can be a sophisticated war tool in defeating opponents, so that each party scrambles to form an opinion to achieve its goals. Especially for countries that embrace the democratic system.

The policy will not be smoothly accepted if the state does not listen to opinions of the community. Opinions can affect the community, stakeholders, and the leaders of the nation. Therefore, opinions is clearly part of the consideration that has made the Indonesian leader has not been able to decide firmly on the development of nuclear power plants.

Therefore the recommendation for government strategy which will be proposed for public acceptance to nuclear power plant in Jepara which is a consolidation strategy through counseling / socialization and electronic mass media. BATAN has

conducted various socialization activities throughout the years. Starting from the socialization through lectures, seminars, workshops, competitions, scholarships, exhibitions, as well as the social devotion. But the question, why the Jepara community are still having negative opinion toward nuclear (nuclear power)?

Based on the analysis obtained from the previous sub-chapter that: 1) the predominant reason to reject the nuclear power plant is the fear of nuclear radiation hazard, 2) there is similarity of issue in online mass media since the most reported issue in Kompas.com is Fukushima leakage radiation, while in Suaramerdeka.com and Republik.co.id, the issues are often reported about the local Jepara communities' strong rejection against the nuclear power plant, 3) found a stakeholder who is strongly rejects that is NGO (local / International).

Thus, writer thought that BATAN as the leading agency appointed by the Government cannot work alone. Batan can cooperate with the Indonesian National Army (TNI) to socialize. The TNI is a government

institution that has a good relationship with community.

One form in increasing public opinion in consolidation is *kamsik*. *Kamsik* is a whisper campaign. The form of *kamsik* in the scientific level is socialization. The elements of socialization in order to achieve the purpose of consolidation, can be identified from:

1. *Substance Aspect*. Since the most dominant issue in nuclear rejection are fear of disaster and radiation, the socialization shall be transparent. That is, all the negative impact of the nuclear power plant shall be properly exposed. In addition, it shall include the mitigation strategy to respond on the possibilities that will happen. In addition, the community aspirations can be accommodated and well considered regarding relocation, compensation, change of profits as well as insurance to be provided.
2. *Target Aspect*. For the targeted communities in consolidation socialization, focus on communities near prospective sites. Previously, BATAN mostly

socialize and prioritizing the community living far from the prospective site for the nuclear power plant, so it was not well-targeted. The reason of BATAN is because the local community living in the prospective site are refusing and rejecting the socialization provided by BATAN. Should in socialization, BATAN can cooperate with other institutions and accompanied by intelligence personnel, so there is no fear in carrying out such socialization.

3. *Speaker Resources*. BATAN as an institution is getting negative response from the community of Jepara, especially in Balong village. Therefore, it need to restart from scratch (zero), BATAN does not have to present in the socialization to Balong Jepara community. This is in order to clear the name of BATAN which is already perceived negatively by the people.

Efforts to mobilize strategies through online mass media are initiated according to the analysis that one of the constraints for nuclear

power plant development is the community resistance through developed opinion. Some people are vying to disseminate information about nuclear power plant negatively, while the government through BATAN actively spreading the benefits of nuclear power plants (positive news). That means, public opinion becomes COG that influences government policy whether to develop the nuclear power plant or not.

In the case of the Jepara nuclear power plant, it can be said that BATAN lost the war because there was no war preparedness against NGO actors. Perhaps the current strategy taken "Call Down". However, it must follow the patterns of Sun-tzu, Napoleon, and German forces. The defeat suffered before became a lesson for winning the war in the future.

BATAN should prepare this war information with power focused on the mass media with the help of intelligence both from TNI, Police and

State Intelligence Agency (BIN). BATAN will not be able to work alone to deal with this case. Cooperation with this intelligence agency is in order to prepare a proper plan and implementation to attack the NGO actors.

Researchers are interested in the intelligence function in form of consolidation in counterintelligence. In the intelligence process, the intelligence service always uses the RPI. The work system of the RPI involves human intelligence (Humint), signal Intelligence (Sigint) and open source intelligence (Osint) as well as other information gathering tools.

In intelligence process, the Commander will first issue an order to the troops to run investigation, security and consolidation. The intelligence task force, which is divided into Humint, Sigint and Osint, performs an intelligence process consisting of four steps, namely planning, preparation, collection and result

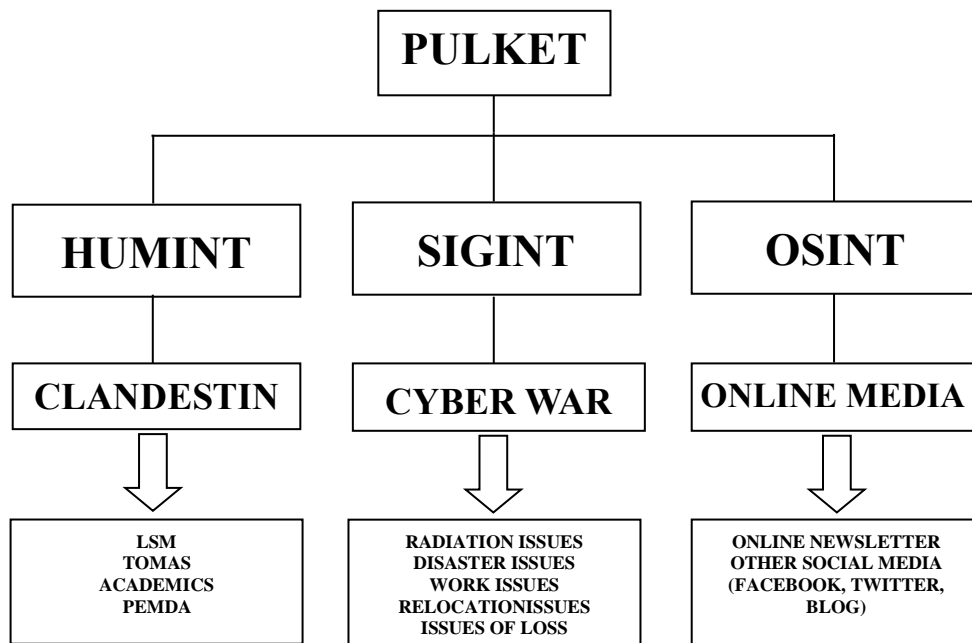


Figure 3. The concept of gathering information in consolidating

Based on the researcher's concept of information gathering, Humint's task is first, to create clandestine. The first clandestine, originating from the government intelligence actors (TNI, Polri and BIN) as the special aid unit (Bansus) in charge of collecting information and rescuing those who received nuclear power plant construction. The second clandestine, originated from the community of Jepara that has been nurtured by BATAN in studying the benefits of nuclear energy.

Signal Intelligence (Sigint) is focused on cyber war. Sigint target is the issue. The issues focussed on the

counter-intelligence issues are taken from most publicly conveyed issues in the previous sections analysis, namely:

1. Fear issues (radiation and disaster)
2. Fear of losing livelihood and threatened by relocation
3. Human resources are not yet professional
4. The presence of NGOs that affect the community
5. Distrust towards national and local government
6. Insurance and compensation, metaphysical costs, etc.

Here's a Sigint-consolidating goal with counterintelligence.

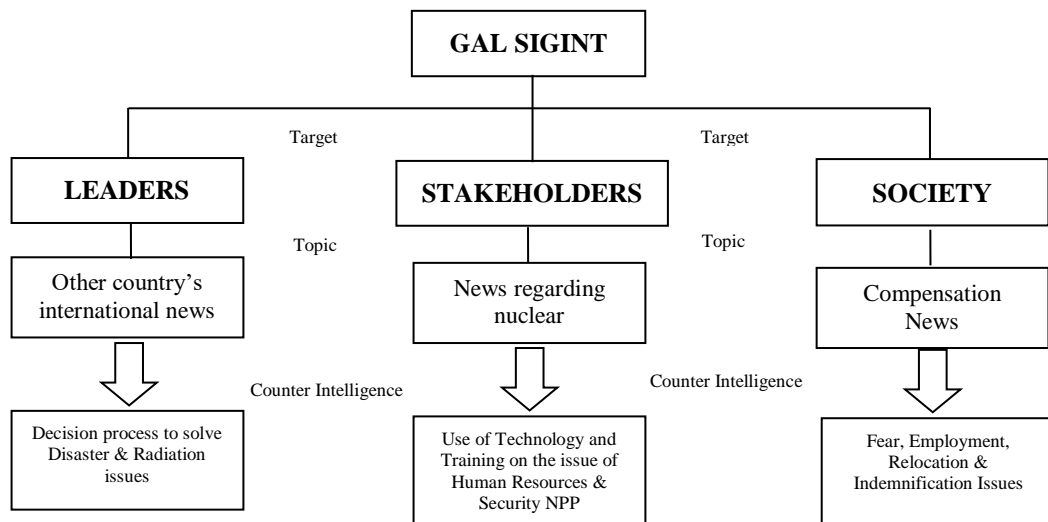


Figure 4. The goal of consolidation Sigint with counterintelligence

Source: Processed data

The Sigint, Humint and Osint have to work together in counter-intelligence to get support for public

acceptance opinion, as illustrated in the following figure:

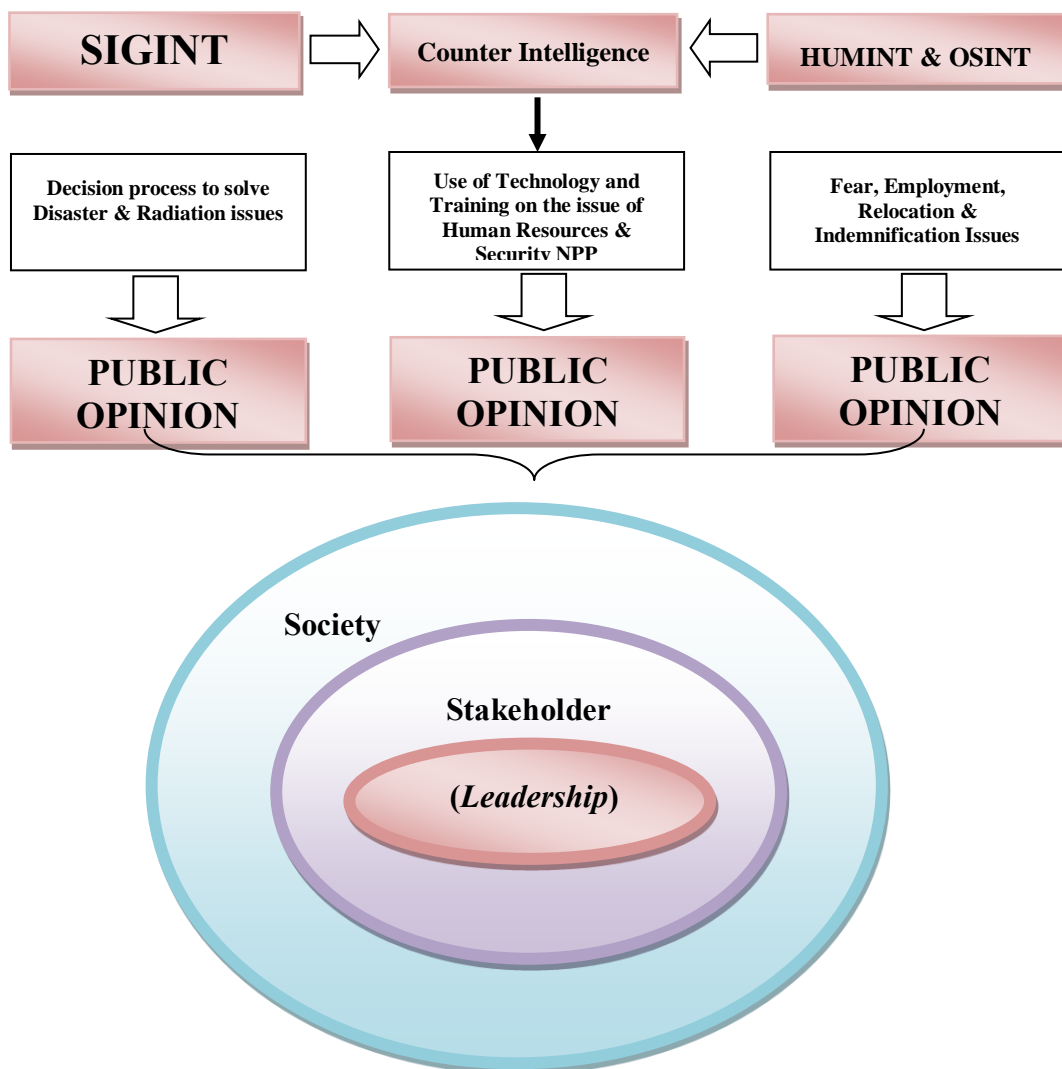


Figure 5. Synergy Humint, Sigint, and Osint in counterintelligence

Source: Processed data

Sigint in collaboration with Humint and Osint in addressing community issues is targeting the leaders, stakeholders and the grass root community with the hope to increase public acceptance toward nuclear power plant development. After the counter intelligence conducted, opinion will attack the community, stakeholders, and leaders so that it will

influence decision makers in the implementation of the NPP.

Conclusion

Based on the discussion in the previous chapter, this research has identified public opinion as COG. The researcher's perceived opinion as COG in this case because opinion has a powerful influence in decision-making

and policy. Therefore, opinions can be a sophisticated war tool in bringing down opponents, so that each party scrambles to form an opinion to achieve its goal.

Therefore, the government is expected to pay particular attention to opinions both directly in the community and in the mass media. As to which can be concluded some important things as follows.

1. The most dominant public opinion in the rejection of nuclear power plants in Jepara is characterized by a subjective reason for information, which is fear. In addition, other subjective reasons that cause the community to reject the development of nuclear power plants are the mistrust of the people to the quality of Indonesian human resources and the distrust of national and local government.
2. Other reasons given by the community are: (1) There is no socialization about the cost of insurance, compensation and land benefit, (2) there is still alternative energy, (3) there is still PLTU Jati Peninsula, (4) military considerations, (5) safety system

of nuclear waste disposal, and lastly (6) planning of nuclear power plant development is not in National RTRW.

3. Most of the reasons for community resistance to nuclear power plants are influenced by external parties. Researchers found in stakeholder mapping that those who have major interests and influence in mobilizing the masses are NGOs, especially NGOs Rekso Bumi (Marem). Followed by Balong Society (PMB) and Fishermen Forum (Fornel). The NGOs have a network connection to the same international NGOs in voicing the rejection of nuclear power plants.
4. The most dominant issue published by Kompas.com is the nuclear radiation leakage in Japan, while Suaramerdeka.com actually post more news about the rejection of the people in Jepara against the Government plans to build a nuclear power plant. Finally, Republika.co.id also issue some news about the community's rejection against nuclear power plant, but not as much as Suaramerdeka.com.

Recommendation

Based on the above conclusions, the recommendation of the government strategy in this research is to use psychological-raising techniques in a persuasive form. The government strategy is as follows: Government strategy through counselling/socialization and online mass media.

Reference

- Act Number 10 of 1997 on Nuclear Energy.
- Act Number 17 of 2011 on State intelligence
- Agus. (November, 2013). *Personal Interview*. (Jakarta: Staff of the Director General of Electricity of Energy of Mineral Resources, ESDM).
- Ardajat, J.J. (2013). *Personal Interview*. Jakarta: Dirjen Energi Telekomunikasi dan Informatika Badan Pembangunan Pengawasan Nasional (Energy Telecommunications and Informatics National Development Supervisory Board), National Defence Institution.
- Bickerstaff, K., Lorenzoni, I., Pidgeon, N. F., Poortinga, W., & Simmons, P. (2008). Reframing nuclear power in the UK energy debate: nuclear power, climate change mitigation and radioactive waste. *Public understanding of science*, 17(2), 145-169.
- Coaffee, J. (2008). Risk, resilience, and environmentally sustainable cities. *Energy Policy*, 36(12), 4633-4638.
- Corner, A., Venables, D., Spence, A., Poortinga, W., Demski, C., & Pidgeon, N. (2011). Nuclear power, climate change and energy security: exploring British public attitudes. *Energy Policy*, 39(9), 4823-4833.
- Doob, W. Leonard. (1948). *Public Opinion and Propaganda*. New York: Henry Holt and Company
- Dorian, J. P., Franssen, H. T., & Simbeck, D. R. (2006). Global challenges in energy. *Energy Policy*, 34(15), 1984-1991.
- Fiksel, J. (2003). Designing resilient, sustainable systems. *Environmental science & technology*, 37(23), 5330-5339.
- Hatmodjo, Jono. (2003). *Intelijen Sebagai Ilmu (Intelligence as a Science)*. Jakarta: Balai Pustaka
- Hollnagel, E., Woods, D. D., & Leveson, N. (2007). *Resilience engineering: Concepts and precepts*. Ashgate Publishing, Ltd.

- Jun, E., Kim, W., & Chang, S. H. (2009). The analysis of security cost for different energy sources. *Applied Energy*, 86(10), 1894-1901.
- Kardaya, W. (May 21st 2012). *PLTN Terkendala Penerimaan Publik (Nuclear power plant is hampered by Public Admissions)*. www.kompas.com.
- Klein, R. J., Nicholls, R. J., & Thomalla, F. (2003). Resilience to natural hazards: How useful is this concept?. *Global Environmental Change Part B: Environmental Hazards*, 5(1), 35-45.
- Mignone, B. K. (2007). The national security dividend of global carbon mitigation. *Energy Policy*, 35(11), 5403-5410.
- Ministry of Defence. (June 1st, 2013). *Perumusan Isu-Isu Strategis Ketahanan Nasional (Formulation of Strategic Issues of National Resilience)*. www.lemhanas.go.id
- Mu, D., Seager, T. P., Rao, P. S. C., Park, J., & Zhao, F. (2011). A resilience perspective on biofuel production. *Integrated Environmental Assessment and Management*, 7(3), 348-359.
- National Nuclear Technology Agency, BATAN. (2012). *Jajak Pendapat PLTN Di Indonesia Tahun 2012 (PLTN Polling in Indonesia 2012)*. www.infonuklir.com.
- Park, J., Seager, T. P., & Rao, P. S. C. (2011). Lessons in risk-versus resilience-based design and management. *Integrated environmental assessment and management*, 7(3), 396-399.
- Pettit, T. J., Fiksel, J., & Croxton, K. L. (2010). Ensuring supply chain resilience: development of a conceptual framework. *Journal of business logistics*, 31(1), 1-21.
- Pidgeon, N. F., Lorenzoni, I., & Poortinga, W. (2008). Climate change or nuclear power—No thanks! A quantitative study of public perceptions and risk framing in Britain. *Global Environmental Change*, 18(1), 69-85.
- Reto E. Haeni. (January, 1997). *Information Warfare an introduction*. Washington DC: The George Washington University Cyberspace Policy Institute 2033 K Str. Suite 340 N Washington DC 20006.
- Sumari. Arwin D.W. (2013). *Energy Resilience Workshop in Perspective of State Defense System*. Jakarta: Energy Defense Studies Program Study of Indonesian Defense University.
- Teräväinen, T., Lehtonen, M., & Martiskainen, M. (2011).

Climate change, energy security, and risk—debating nuclear new build in Finland, France and the UK. *Energy Policy*, 39(6), 3434-3442.

Yergin, D. (2006). Ensuring energy security. *Foreign affairs*, 69-82

Zhou, H., Wan, J., & Jia, H. (2010). Resilience to natural hazards: a geographic perspective. *Natural Hazards*, 53(1), 21-41