

EDUCATION OF THE LOCAL BADUY COMMUNITY IN ENVIRONMENTAL ISOLATION FACING PANDEMIC BECOME ENDEMIC (KANEKES VILLAGE LEUWIDAMAR DISTRICT LEBAK BANTEN PROVINCE, INDONESIA)

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ABSTRACT

The Covid-19 pandemic is a test for the global health system and other systems. At the global level, the World Health Organization (WHO) notes that WHO is coordinating global laboratory surveillance of the COVID-19 variant modeled on the established Global Influenza Surveillance and Response System. The Baduy tribe lives in a protected forest area in Kenekes Village, Leuwidamar District, Lebak Province, Banten, Indonesia. The problem faced by the Head of the Baduy Tribe is the lack of knowledge of environmental isolation in the face of the Covid-19 and Endemic pandemic in a scientific manner. This paper aims to educate the Head of the Baduy Tribe in Environmental Isolation. The solution to this problem is to educate the Baduy Chief about the benefits of conducting environmental isolation to deal with the Covid 19 and endemic pandemic. This community service activity uses the method of discussion and Driver-Pressure-State-Impact-Response (DPSIR). The DPSIR framework model aims to make an inventory of key indicators of the role of the Baduy Tribe Leader. There are 15 attributes for environmental isolation which are the responsibility of the Head of the Baduy Tribe, and the highest is Improving of ecological-economy system

Keywords: DPSIR, ecological-economy, environmental, isolation

1. BACKGROUND

The Covid-19 pandemic is a test for the global health system and other systems. At the global level, the World Health Organization (WHO) notes that WHO is coordinating global laboratory surveillance of the COVID-19 variant modeled on the established Global Influenza Surveillance and Response System (GISRS) (Shobha Broor, *et. al.*, 2020). GISRS is the system of Laboratory standards for detecting Respiratory syncytial virus (RSV) by real time Polymerase Chain Reaction (RT-PCR).

The Baduy tribe lives in a protected forest area in Kenekes Village, Leuwidamar District, Lebak Province, Banten, Indonesia (Figure 1). The Baduy community is divided into two groups namely Inner Baduy and Outer Baduy. The Inner Baduy are considered saints and clean. Their cleanliness and purity are considered to be directly related to the Creator. The sacred ceremony performed annually is only followed by the inner Baduy figure. They are considered as saints who are ascetic to keep the earth, read the signs of nature and the signs of the times to maintain harmony and balance of nature. Baduy community live in the hamlets of Cibeo, Cikeusik and Cikartawana. The Baduy community in this always wear white black pants and white headbands. Baduy community is less associating with others community.

The outer Baduy community live in kaduketug, Cikadu, Kadukolot, Cisagu, Gajeboh, and others. Kampung Kaduketug is the outermost Baduy village bordering the non-Baduy village. The outer Baduy community are slightly

different from the inner Baduy, they have often hung out with the outside community. They have listened to the radio, even have mobile phones. The clothes of the outer Baduy community are pants and black shirts while the headband is dark blue. There is another group, which is often called "Baduy Dangka", namely the inner Baduy community and the outer Baduy live in a village, but they live outside the village of Kenekes. Currently they live in Padawaras (Cibengkung) and Sirahdayeuh (Cihandam) Hamlets. This community served as buffers for Baduy in the influence of outside cultures.

Baduy community is one of the tribes that isolate themselves from the outside world. In addition they also have taboo beliefs to document, especially the inhabitants of the Inner Baduy region. The amount of Baduy community are 26,000 people, representing 3,395 households who live in an area of 5.136,58 hectares in the mountainous region of South Banten (Energi Bangsa, 2021; Joni Iskandar, 2017; Rume Tanjena and Islam S., M., Didar, 2020).

The problem faced by the Head of the Baduy Tribe is the lack of knowledge of environmental isolation in the face of the Covid-19 and Endemic pandemic in a scientific manner. This paper aims to educate the Head of the Baduy Tribe in Environmental Isolation. The solution to this problem is to educate the Baduy Chief about the benefits of conducting environmental isolation to deal with the Covid 19 and endemic pandemic. Deteriorating environments, trends in climate change, habitat destruction, and air pollution are still difficult to prove their role in the spread of COVID-19. But there are several theories that link them. This rapid life on earth mainly owes its debt to habitat loss, which largely occurs from the

activities of cultivating crops and raising livestock for human consumption (J. Frieden, 2020).



Figure 1. Baduy community

Therefore, based on the loss of habitat of certain species, it has to do with a deteriorating environment, an environment that is not maintained, so as to improve environmental quality, one of which is by isolating the environment. One of the regions in Indonesia that has taken environmental isolation measures is the Baduy community, including Baduy Luar and Dalam.

This paper aims to educate the Baduy Chieftain in Environmental Isolation. The solution to this problem is to educate Baduy about the benefits of environmental isolation to deal with Covid 19 and endemic. The absence of Covid-19 cases in Baduy from the period 20 March 2020 to 30 June 2021, strengthened the relationship between the loss of habitat of certain species, the Covid-19 pandemic and environmental isolation. The Baduy community is one of the tribes that isolates themselves from the outside world. In addition, they also have taboo beliefs to document, especially the residents of the Inner Baduy region.

2. METHOD

Community Service activity was carried out in 2019, and continued in 2020 until February 2021, and the location of the community service was in Kanekes Village, Leuwidamar District, Lebak Regency, Banten Province. Baduy community live in Mount Kendeng in Kanekes Village, Leuwidamar District, Lebak Regency, the location is 173 km from Jakarta. (Figure 2). Ciboleger village is the final frontier of "modern" civilization village, and Kadu Ketug Village, is the first village of Baduy tribe. In Kadu Ketug Village, there is the white monument, which is the boundary of baduy village. The clothes worn by the Baduy tribe of men wore black clothing, black pants and dark blue headbands, or white clothing and black pants and white headbands.

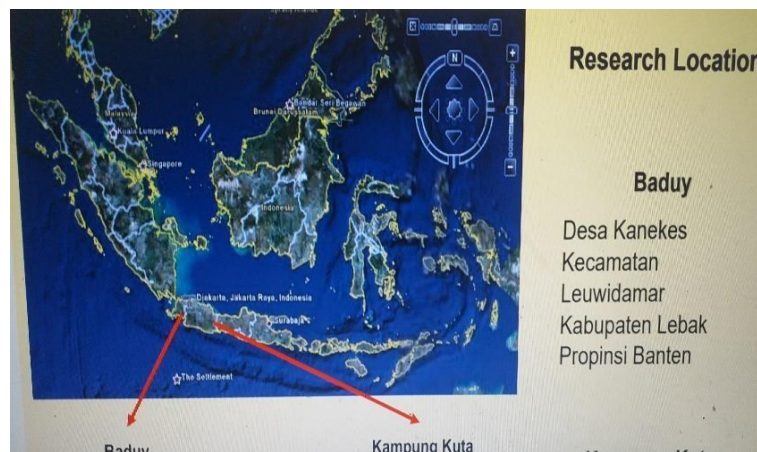


Figure 2. Location of community service

Entering the Baduy village, we will find warning boards with various prohibitions, such as: prohibited to carry weapons, prohibited to carry illegal drugs, picking fruit, prohibited to throw garbage carelessly, prohibited to use soap to bathe or wash, and other warnings. This community service activity uses the method of discussion and Driver- Pressure-State-Impact-Response (DPSIR). The DPSIR framework model aims to make an inventory of key indicators of the role of the Baduy Tribe Leader.

DPSIR model of intervention is a causal framework for describing the interactions between society and the environment.

Human impact on the environment and vice versa because of the interdependence of the components. As the first step, data and information on all the different elements in the DPSIR chain is collected. Then possible connections between these different elements are postulated. Through the use of the DPSIR modelling framework, it is possible to gauge the effectiveness of responses put into place (Figure 3).

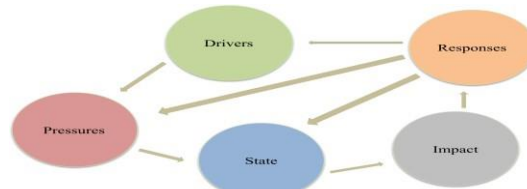


Figure 3. Driver-Pressure-State-Impact-Response (DPSIR) framework model

The DPSIR framework model has been used for integrated environmental reporting and assessment, developed by the European Environment Agency (EEA) in 1999. DPSIR has been used in environmentally related analysis in various studies (L., S., Mulyawati, et. al., 2020; M., D., D., Maharani, 2021; Naveedh Ahmed S., 2020; Shijin Qu, 2020; Wenyan Pan, 2020). The output of DPSIR is knowledge and skilling indicators of the role of the Loca ly Community-Based Institutional in Environmental Isolation

3. RESULT AND DISCUSSION

The problem-solving activity faced by the Baduy Tribe Leader is carried out by discussing of the DPSIR framework which produces attribute of knowledge and skilling indicators for the role of Chieftain Local Community- Based Institutions in the Environmental Isolation program (Table 1).

Table 1. Results of identification and inventory indicators in the Environmental Isolation program

<i>Number</i>	<i>Indicator</i>	<i>Indicator Category</i>
1	Growing crops	Driver
2	Raising chicken	Driver
3	Fish farming	
4	Weaving (from the bark of a tree called “koja” or “jarog”)	Driver
5	Habitat loss	Pressure
6	Land waste	Pressure
7	Land emission	Pressure
8	-	State
9	Potential decrease in soil carrying capacity	Impact
10	Potential decline in soil fertility	Impact
11	Socio-economic harmonization	Response
12	Socio-ecological harmonization	Response
13	Ecological-economic harmonization	Response
14	Improving of social-ecological-system (SESSs) orecological-social-system (ESSs)	Response
15	Improving concept of ecological-economy system	Response
16	Improving of social-ecological-economy (sustainability)	Response
17	Competency improvement of Local Official Resources	Response
18	Increasing social interaction to others communities	Response
19	Practice of nature conservation	Response
20	To forest protection	Response
21	To maintain the continuation of the land	Response
22	The traditional agreements or traditional ”laws”	Response
23	Forbidden to destroy the land	Response
24	Forbidden to deflect the flow of water	Response
25	The seeds must be from their own crops	Response

Through the discussion and the DPSIR method, 3 (three) Driver indicator components were produced, 3 (three) Pressure, 0 (zero) State, 2 (two) Impact, and 15 (fifteen) Responses (Table 1). Fifteen Responses from the conclusion of discussions with the Baduy community are then ranked based on the Root Mean Square (RMS) value listed in Table 2.

Table 2. Attributes and values root mean square (RMS)

<i>Number</i>	<i>Attributes</i>	<i>Root Mean Square</i>
1	The seeds must be from their own crops	3.92
2	Improving of-ecological-economy system	3.97
3	The traditional agreements or traditional "laws"	3.50
4	Practice of nature conservation	3.60
5	Socio-ecological harmonization	3.30
6	Socio-economic harmonization	3.13
7	To maintain the continuation of the land	2.90
8	ecological-economic harmonization	2.84
9	Improving of social-ecological-economy (sustainability)	3.00
10	Forbidden to deflect the flow of water	3.33
11	To forest protection	3.52
12	Forbidden to destroy the land	3.93
13	Increasing social interaction to others communities	4.26
14	Competency improvement of Local Official Resources (Girang Seurat, Puun)	4.51
15	Improving concept of ecological-economy system	3.99

The fifteen response indicators are indicators of the success of the response resulting from discussions with the community and the Baduy Tribal Leader. The highest response indicator is the Improving of-ecological-economy system.

Environmental isolation

Currently, there are several biotic components in the environment that have the potential to affect human health globally. One example of such a biotic component is *Candida auris* which is a serious globally threatening pathogen to human health. *Candida auris* is an emerging pathogen, and its ecological niche remains unexplored. While species closely related to *Candida auris* have been detected in different environmental habitats, and little is known about the natural habitat of *C. Auris*.

The pandemic situation has significantly had an impact on improving air quality in various cities around the world because mobility is controlled, reducing greenhouse gas emissions, reducing water and noise pollution, and reducing tourism activities, so it can be said that the Covid-19 pandemic can help the restoration of the ecological system. In addition, there are also some negative consequences of the COVID-19 pandemic, such as an increase in medical waste, gratuitous use and disposal of disinfectants, masks, gloves, the burden of untreated waste, which of course has the potential to harm the environment (R. Tanjena & Islam S.M. Didar, 2020).

Institutional Structure of Local Communities

Baduy community have the locally institutional structure that has been lived from generation to generation. Locally Baduy community institutional adheres to the system of "Kekolotan" based on Sunda Wiwitan teachings, the system that respects "Kasepuhan" or "Kakolot" and "Karuhan" or ancestors (Enjang A.S., 2020), Baduy people proved to be very obedient to verbal agreements. The social structure of Baduy society is as follows:

"Puun" is the supreme leader of the Baduy community, chosen by customary deliberations, derived from the Inner Baduy tribe (from the village: Cibeo, Cikartawarna, Cikeusik). Puun in addition to the supreme leader, is also in charge of leading, mastering and implementing customs and teaching teachers "Sunda Wiwitan".

Puun was assisted by "Girang Seurat" who ran "kepuunan", especially the management of Huma Serang, (puun farm) and attended meetings with government officials when Puun was unable to attend. Baresan Salapan, Puun's maid in charge of maintaining security and order. The number in each village of Baduy as many as 9 people. Jaro adat (Jaro Tangtu), is the person chosen to handle social interests. Jaro Warega is the person chosen to handle the religion that carries out the obligations of the Baduy community and represents it to control the state of the customary forest and the deposit forest outside Baduy. Jaro Pamerintahan is a village head-level position tasked with carrying out government duties, equivalent to the head of a village outside Baduy.

Kakolotan overtime is the person who is considered the most obedient to the teachings of religion and customs. Kakolotan overtime became a teacher and community advisor to Sunda Wiwitan teachings. He also mastered the science of alternative and traditional medicine. Kokolotan is a person who was chosen because of his customary obedience and knowledge above average and became an advisor to Tangkesan. Jaro Tanggungan 12 is the person chosen by Kokolot Lembur, Kokolotan, Tangkesan, and Puun. This person is tasked with providing legal protection to the entire Baduy community for behavior inside or outside the Baduy area that can harm others or harm others. In addition, he is tasked with providing guidance to maintain reasonable attitudes and behaviors in social life.

Tangkesan (Bapak. Kolot) is a person who is authorized to give advice to Puun. Tangkesan is a person who has the right to marry a couple who are married to Baduy custom. The village head is the one chosen to lead and mobilize the entire village population in every gotong royong activity. Building physical as well as religious activities. Other positions that exist and are in the form of Baduy community are the Chairman of youth who is responsible for leading the youth and Palewari who was chosen to help all activities held in the village.

The process of selecting existing positions is through a process of deliberation with various levels. In this election process, no one is allowed to run for any office. Each selected person is required to accept the duties charged to him. The deadline for this customary position is not determined by the year but there is determined by the authority of Puun, the authority of deliberation and the state of health given office or death. The customary positions are highly appreciated by the Baduy people.

To maintain order and law enforcement in the Baduy community the sanction is given to anyone who violates customary law. Light sanction in the form of advice and reprimand is given until severe punishment in the form of isolation until removed from the Baduy area. The Baduy community also provides prisoners to punish Baduy people who violate rather severe mistakes.

This prisoner is a house apart from the other house. The convicted person continues to carry out daily activities but is always supervised and advised by Jaro 12. At the end of the sentence, the convicted will be asked if he will still live in the Baduy region or opt out. If the convicted choose to remain in the Baduy region, then he must promise not to violate again. The firm stance of Baduy leadership also happened in the modern country of Singapore. According Indonesian Ambassador Suryo Pratomo state, that Singapore imposes strict rules for its non-compliant citizens facing Covid-19, will be barred from entering Singapore again for life. Now exemplified by Singapore in the face of Covid-19.

4. CONCLUSION

There are 15 attributes for environmental isolation which are the responsibility of the Head of the Baduy Tribe, and the highest is Improving of-ecological-economy system. The improvement of the capability of the Baduy Tribe Leader in scientific environmental isolation, to deal with the Covid-19 and Endemic pandemics is quite good. The Supreme Leader, His Assistants, Counselors, and Advisors of the Baduy Supreme Leader Advisors have the highest Driving Power and the lowest Dependency.

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