

IDENTIFIKASI PENYESUAIN GAYA HIDUP DIKARENAKAN KEBISINGAN PESAWAT DI BANDARA INTERNASIONAL AHMAD YANI DAN SEKITARNYA

Identification Of Lifestyle Adaptation Due To Aircraft Noise In Ahmad Yani International Airport And Surrounding

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Abstract - Noise is one of the most common items used by aircraft around the world , there are About 50,000 commercial flights each day around the world and 3 million people traveling . In the operational of aviation in Ahmad Yani International Airport Semarang , an airplane can make some noise. The noise is a sound that unwanted in a place and time scale, it can make some disturbance that influence human freshness and health. Particularly for Residents whom living very close by the airport such as Graha Padma and Tambakharjo. It is commonly believed that people adapt rather easily to noise. This research reviews the available data , finding little evidence that any adaptation occurs in community close by airport .however, is open to alternative interpretations. The present study, examining reactions noise effect from the airport daily operations on residents near by the airport and how they can adapting with the aircraft noise in them daily lifestyle .first of all , we measured the noise inside Graha Padma and Tambakharjo in 23 points using apparatus sound level meter, Taking into consideration different locations ,times and days . we classification this area into three , most affected area , affected area and low affected area according to the levels of noise .we took 30 random samples of people taking into consideration different times ,days , age, gender and distance. This study wants to suggest that the airport should take a new bigger role to minimize the noise and people whom living around the airport should follow some steps to adapting or avoid the aircraft noise.

Keywords : Noise , community ,adaptation and Ahmad Yani Airport Semarang .

INTRODUCTION

Air transportation generates numerous economic and social welfare benefits. Airports and their expansions are associated with direct, indirect induced effects as well as catalytic impacts on regional and national economies and accessibility are important factors determining competitiveness of (regional and national) economies in an increasingly globalised world. On the other hand there are numerous environmental and health impacts related to the growing demand for air transport. Since the projected annual growth rates of numbers of passengers are about 5% in the next 20 to 25 years .

Years	Flights	Passengers
2012	domestic	5781,028
	International	232,588
2013	domestic	5,971,498
	International	253,068

Table (1) showing the increase of passenger's number in the last two years. (Ahmad Yani International Airport)

The continuing growth of the aviation sector has raised questions of appropriate valuation and treatment of external costs (e.g. human and environmental health). In the context of transport markets, a distinction of externalities into positive (external benefits) and negative (external costs) is appropriate. Large infrastructure projects like airports cause various external effects. associated especially with the provision of transport services and facilities, the need of constructing transport infrastructure as well as related production of vehicles or raw materials . Air traffic and associated ground side traffic contribute to local and global noise and air pollution. Despite a large body of research on the economic



effects the demand for more information about the economic effects of pollution and noise exposure is increasing.

Effects on human environmental health as well as on property values, land use planning constraints and spatial and social polarization are issues of importance, requiring further scientific work. People who live close to airports or under flight paths can often feel strongly about the disturbance to their lives from noise. Addressing their concerns is important for a successful effects include general distraction, speech interference and sleep disturbance which can lead to annoyance and complaints. People who live close to airports or under flight paths can often feel strongly about the disturbance to their lives from noise. Addressing their concerns is important for a successful effects include general distraction, speech interference and sleep disturbance which can lead to annoyance and complaints. Noise is defined by the World Health Organization (WHO) as unwanted

sound. Physically, there is no difference between sound and noise. The difference is one of human perception and is subject to individual variability. The purpose of this study Determine the level of noise caused by the sound of aircraft on airport surrounding, Compare the noise level from Ahmad Yani International Airport with health standards, Identification areas more affected by noise and classification it depending on damage volume, Identification of lifestyle adaptation to reduce aviation noise effect .

Benefits

we will know where the rate of people affecting by noise and identify the category that most affected and the times when the damage is intense .We can give closely idea to those who work on Ahmad Yani International airport to change the daily flight schedule or make a good background for people to adapting as well as appropriate with daily operations of the airport.

CONCLUSION

The questions	More affected area (A)
1.The age ,gender and the distance from the airport .	Including different ages and similar gender ,this area is the closest area to the airport .
2.The age and the disturb from the airport noise .	The aircraft noise disturb everyone ,however the yang and the very old people are more disturb by the aircraft impact.
3.The age and when people feel disturb and they want to relax or study at house.	In this area ,the residents using different way to avoid the aircraft noise impact and each generation has different idea .
4.The gender and the sensitive from aircraft noise .	In this area ,we could seen the female or women more sensitive to the aircraft noise than male or men .
5.The gender and periods of annoyance .	The women are more annoyance by airport noise affect in this area and we could seen very clearly the periods almost at night ,from (20:00) until (5:00).



Affected area (B)	Low affected area (C)
Including different ages and similar gender ,this area is the medium dimension from the airport .	Including different ages and similar gender ,this area is the furthest distance from the airport .
The aircraft noise disturb almost everyone in this area including youth and medium ages .	In this area people sometimes feel disturb by aircraft noise and if we compare this area with the other areas will see people low affected by aircraft noise .
In this area ,the residents using different way to avoid the aircraft noise impact and each generation has different idea .	In this area ,the residents using different way to avoid the aircraft noise impact and each generation has different idea .
In this area ,we could seen the male or men more sensitive to the aircraft noise than female or women .however ,the highs number of female fee sensitive to the aircraft noise .	In this area ,we could seen the female or women more sensitive to the aircraft noise than male or men .
We could seen the similar numbers of genders have annoyance by the aircraft noise but the different is the period of annoyance .	In this area also women more annoyance by aircraft noise but the time of annoyance is different .

RECOMMENDATION

For the government .

1. Providing information to the public whom living on airport surrounding ,about the seriousness of the noise damage and the consequent health of the noise problems , particularly for children and very old people .
2. Establishment of an independent regulator to protect those affected by aviation noise consists of a number of residents, government officials and a number of airport staff to convergence of views between modus operandi of the airport and the way people live and find a solution to adapt between them .

For the Achmed Yani International Airport.

1. Improving the aircraft fleet using AchmadYani International Airport by following actions :

- a. Negotiating with airlines to phase out the use of all older, noisier aircraft .
 - b. Encourage airlines to use quieter aircraft atencourage airlines to use quieter aircraft at AchmadYani International Airport.
 - c. Setting tougher of noise standard, for the aircraft flying into the airport during the night.
2. Publishing annual noise contours for day, evening and night noise .

For the resident.

If you live near an airport, or are planning to move near one, a good first step is to get specific details about aircraft noise levels in the neighborhood. You can do this by contacting your local airport for a copy of the noise contour (noise map) for your area. From there, you can compare your local noise contour to the contours . If you know the aircraft level noise in your neighborhood then you can decrease the



level of aircraft noise by following some of steps below:

1. Preferably lack of slots in the wall because, both sound and energy can be transmitted through an open space in the wall .
2. A bedroom or living room with carpeting and soft furniture is likely to be quieter than having all hard surfaces.
3. Using earplugs. Earplugs are inexpensive, generally effective when you want to sleep or for relax home .
4. Soft surfaces. To help you decrease an aircraft noise , in your house should be an enemy of sound. This means that you should eliminate hard surfaces as much as possible. Hard surfaces do not absorb and stop sound; they reflect it. Strive for soft surfaces instead. If sound enters your bedroom from outside, soft surfaces can absorb much of the noise and lessen the amount that reaches your ears.
5. Sometimes it can be wise to use landscaping to reduce noise from disturbing your sleep, especially from aircraft noise .using Deciduous shrubs to grow on and cover the fence will provide an added sound-deadening layer. Then a hedge of tall shrubs can be planted in front or behind the fence for an additional sound barrier.
6. Masking aircraft noises by using white noise machines, it is a device that produces a random sound and it could help you to disregard an aircraft noise during sleep.

REFERENCES

- Appenndix J.Measuring Aircraft Noise ,January, 2003.
- Charlotte Clark and Stephen A Stansfeld.The Effect of Nocturnal Aircraft Noise on Health: a Review of Recent Evidence,September 2011.
- Darren Muldoon .The impact of airport noise on residential property values: a case of the Portland –Hillisboroairport ,June 2003.
- Debra L. Miller, Secretary, Kansas DOT, Topeka.Effects of Aircraft Noise ,2008.
- Dirk Schreckenberg , Markus Meis , Cara Kahl, ChristinPeschel and Thomas Eikmann, Aircraft Noise and Quality of Life around Frankfurt Airport,2010.
- Fedja Netjasov . Contemporary measures for noise reduction in airport surroundings, 20 March 2012.
- Flavio Maldonado Bentes a, Tarcilene Aparecida Heleno b and Jules GhislainSlama. Analysis of airport noise exposure around Viracopos International Airport using geographic information systems,2012.
- H. W. Krohne. Stress and Coping Theories,2002.
- Paul L. Goldschagg .Using supplemental aircraft noise information to assist airport neighbours understand aircraft noise ,2013.
- Pembangunan dan pelestarian lingkungan hidup bandar udara dengan rahmut tuhan yang maha ESA presiden republik Indonesia ,NO40,2012.
- Pere Suau-Sanchez, Montserrat Pallares-Barbera and ValeriàPaül. Incorporating annoyance in airport environmental policy: noise, societal response and community participation 2010.
- Roland Benedikter. lifestyle ,2006.

