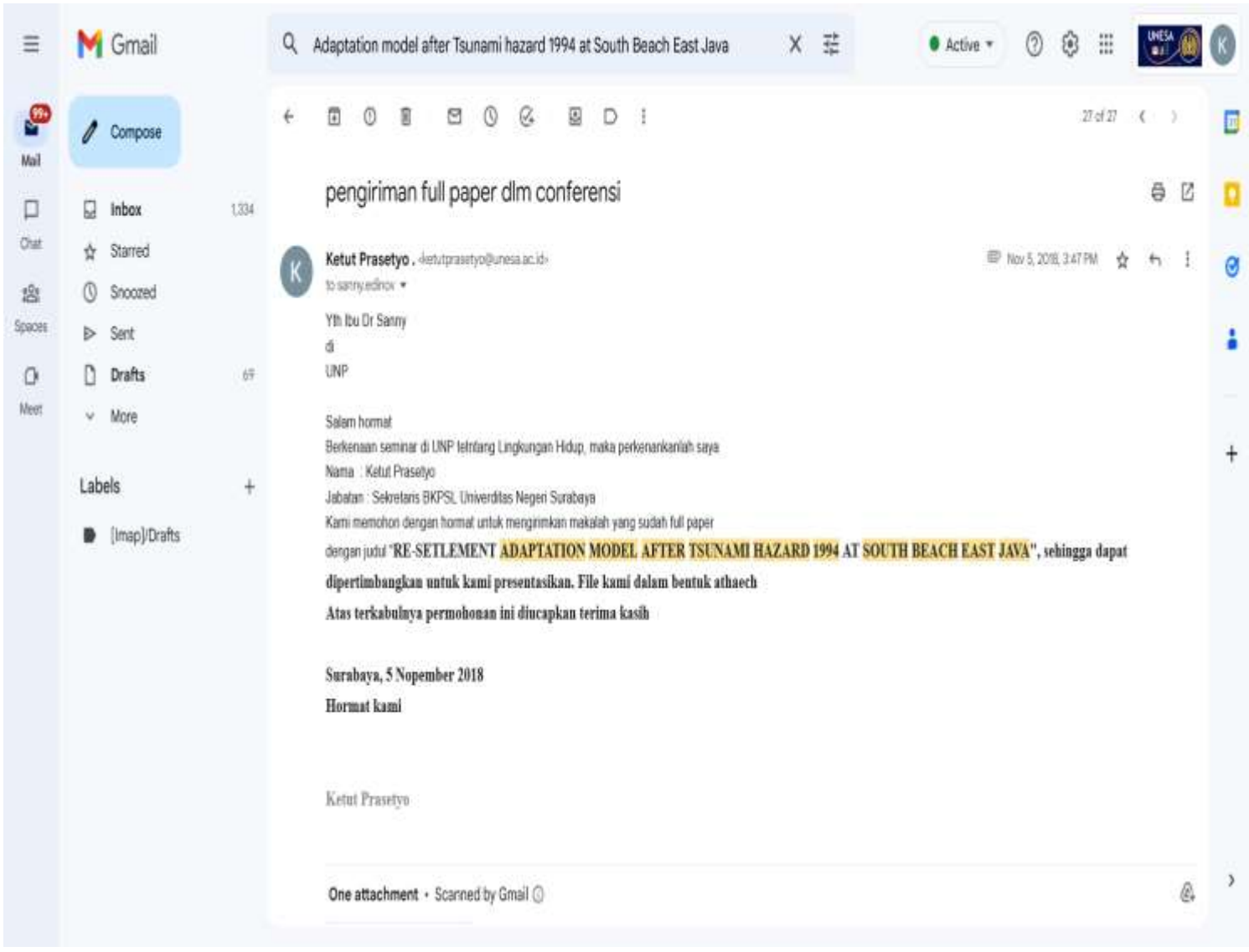
LAMPIRAN KORESPONDENSI 1.

"PENGIRIMAN FULL PAPER DALAM CONFERENSI"

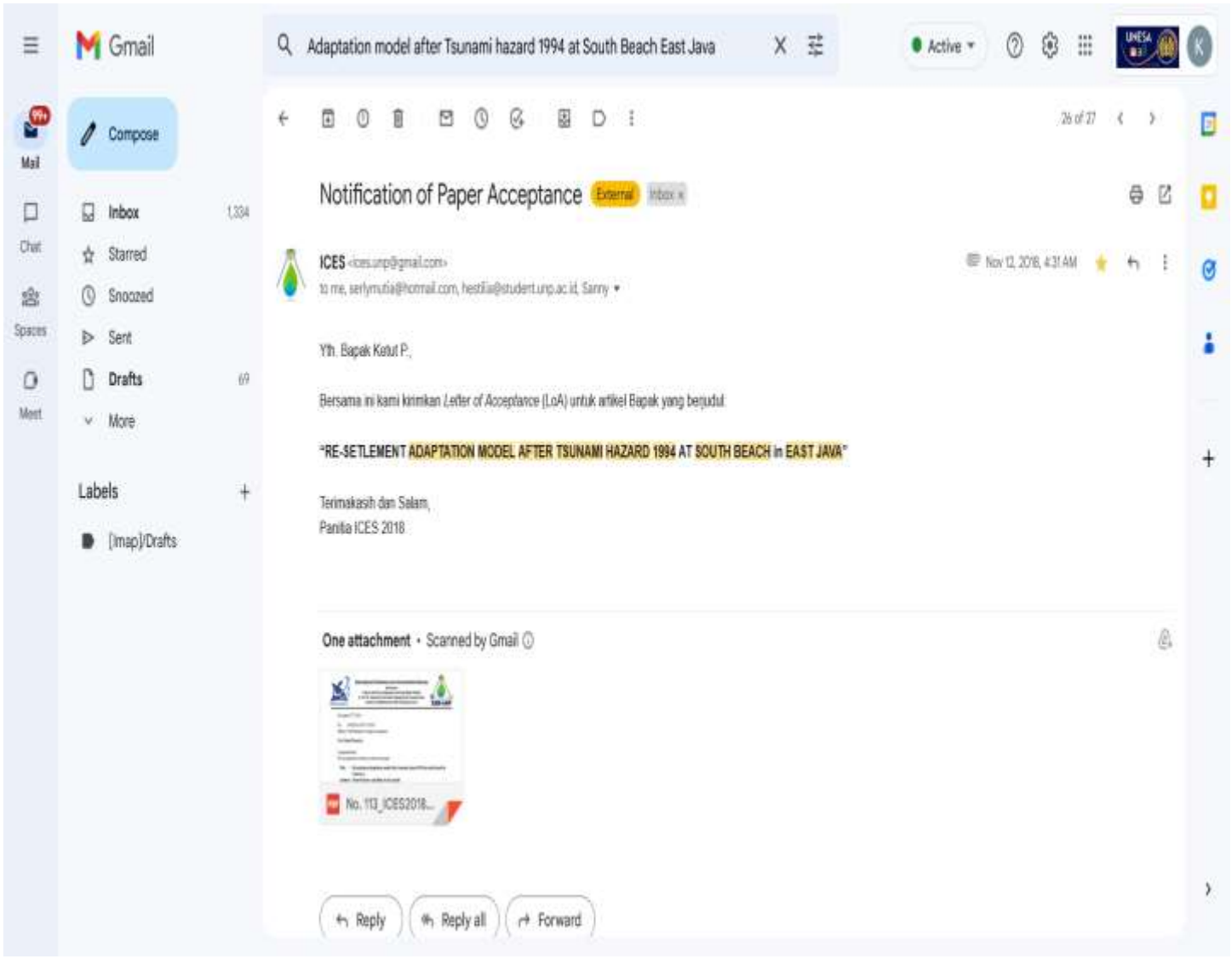
==========



LAMPIRAN KORESPONDENSI 2.

"PEMBERITAHUAN BAHWA PAPER TELAH DI- ACCEPTANCE"

==========



LAMPIRAN KORESPONDENSI 3.
"BUKTI NASKAH NOTIFICATSPION OF PAPER ACCEPTANCE"

International Conference on Environmental Sciences
Sekretariat:
Program Studi Ilmu Lingkungan Universitas Negeri Padang
Jl. Prof. Dr. Hamka Air Tawar Barat Padang
25131, Sumatera Barat Email:
ices.info@unp.ac.id, Web: ices.pps.unp.ac.id

November 2nd, 2018
No. : 04/ICES-UNP/11/2018
Subject: Notificatspion of paper acceptance

Dear **Ketut Prasetyo,**
Congratulations!
We are pleased to inform you that your paper
Title : Re-setlement adaptation model after tsunami hazard 1994 at south beach inEast Java
Authors : Ketut Prasetyo and Dian Ayu Larasati
ID : 113_ICES2018
is accepted to be presented in the **1st International Conference on Environmental Sciences 2018 (ICES2018)** at Universitas Negeri Padang, Padang City, Indonesia on November 14- 18th, 2018. We congratulate you on this achievement.
As local presenter, you are kindly requested to make payment amount IDR 1.500.000 (*including publication cost*). The payment should be transferred to **Bank Negara Indonesia 1946 (BNI 46) with account number 0668110902 and account name RPL 010 BLU UNP untuk DKE**. Please confirm your payment by sending the scan of the receipt of payment, your name, and the number submission and title of the paper through these options below:

- your account on the website ices.pps.unp.ac.id
- email to ices.info@unp.ac.id or ices.unp@gmail.com
- *WhatsApp* group admin

Please be informed that selected paper will be published in IOP Conference Series: Earth and Environmental Science (*EES*) indexed by Scopus on IOP Publishing.

We look forward to seeing you at the ICES2018.

With Best Regards

General Chair

Zainal A. Haris, S.Ag., M.Si

Secretary

Agus Teguh Prihartono, SP., M.Si

LAMPIRAN KORESPONDENSI 4.
"LETTER OF ACCEPTANCE DAN PEMBERIAN "ID IOP" DAN PEMBAYARAN CONFERENCE"

International Conference on Environmental Sciences
Sekretariat:
Program Studi Ilmu Lingkungan Universitas Negeri Padang
Jl. Prof. Dr. Hamka Air Tawar Barat Padang
25131, Sumatera Barat Email:
ices.info@unp.ac.id, Web: ices.pps.unp.ac.id

February 1st, 2019
No. : 04/ICES-UNP/2/2019
Subject : Letter of acceptance
Dear **Ketut Prasetyo**, Universitas Surabaya

Congratulations!
The Scientific Committee has completed its review of your paper submitted for **the 1st International Conference on Environmental Sciences 2018 (ICES 2018).** The final decision is made based on the peer-review reports, the scientific merits and the relevance.
We are pleased to inform you that your paper has been accepted by the Scientific Committee of ICES 2018 and will be proceeded to be published in IOP Proceeding "*IOP Conference Series: Earth and Environmental Science* (EES)", and will be indexed by SCOPUS.

IOP ID	021_ICES2018
Authors	Ketut Prasetyo and Dian Ayu Larasati
Title	Re-settlement adaptation model after tsunami hazard 1994 at South Beach in East Java

Notes:
1. Please revised your paper according to the detailed comments and suggestions from the referees.
2. Your paper will have to pay an additional fee of IDR 1.000.000 for publishing in IOP Publication. The payment should be transferred to *Bank Negara Indonesia unit UNP* with account number *0717727748* and account name *Eri Barlian*.

Thank you very much for participating in the ICES 2018.

Best Regards

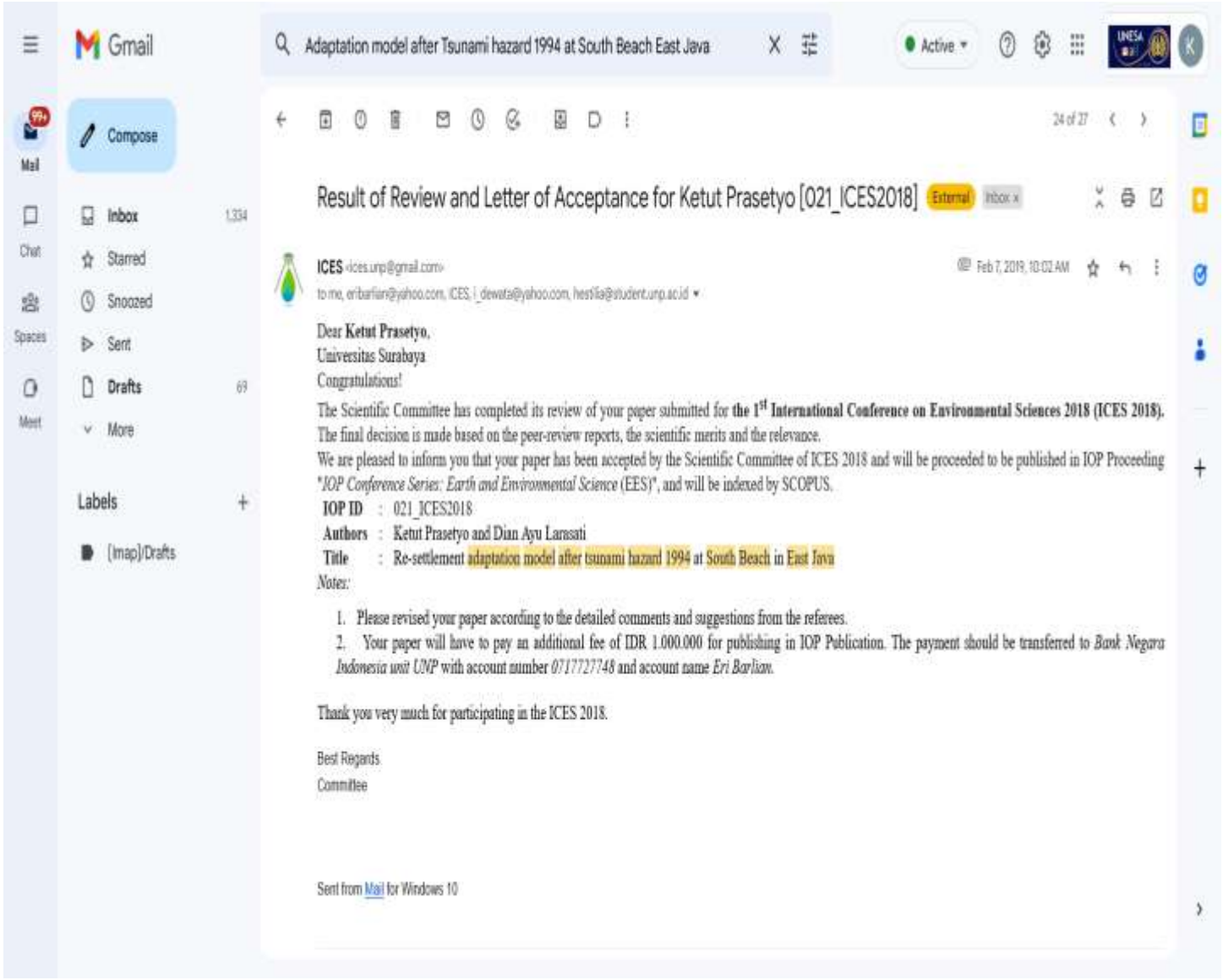
General Chair
Zainal A. Haris, S.Ag., M.Si

Secretary
Agus Teguh Prihartono, SP., M.Si

LAMPIRAN KORESPONDENSI 5.

“ PEMBERITAHUAN NASKAH UNTUK DIREVISI DAN INFO REKENING PEMBAYARAN

==========



Gmail

Adaptation model after Tsunami hazard 1994 at South Beach East Java

Active

Compose

Inbox 1,334

Starred

Snoozed

Sent

Drafts 69

More

Labels

[Imap]/Drafts

Result of Review and Letter of Acceptance for Ketut Prasetyo [021_ICES2018] External Inbox x

ICES <ices.unp@gmail.com> Feb 7, 2019, 10:02 AM

to me, eribarlian@yahoo.com, ICES, i_dewata@yahoo.com, hestilia@student.unp.ac.id

Dear **Ketut Prasetyo,**
Universitas Surabaya
Congratulations!

The Scientific Committee has completed its review of your paper submitted for **the 1st International Conference on Environmental Sciences 2018 (ICES 2018).**
The final decision is made based on the peer-review reports, the scientific merits and the relevance.
We are pleased to inform you that your paper has been accepted by the Scientific Committee of ICES 2018 and will be proceeded to be published in IOP Proceeding "*IOP Conference Series: Earth and Environmental Science* (EES)", and will be indexed by SCOPUS.

IOP ID : 021_ICES2018
Authors : Ketut Prasetyo and Dian Ayu Larasati
Title : Re-settlement adaptation model after tsunami hazard 1994 at South Beach in East Java

Notes:

1. Please revised your paper according to the detailed comments and suggestions from the referees.
2. Your paper will have to pay an additional fee of IDR 1.000.000 for publishing in IOP Publication. The payment should be transferred to *Bank Negara Indonesia unit UNP* with account number *0717727748* and account name *Eri Barlian.*

Thank you very much for participating in the ICES 2018.

Best Regards
Committee

Sent from Mail for Windows 10

LAMPIRAN KORESPONDENSI 6.

"PEMBERITAHUAN HASIL PEER REVIEWER "

==========

REVIEW FORM
The 1st International Conference on Environmental Sciences (ICES2018)

Instructions
Thank you for your willingness to review the article that submitted to ICES2018. Please note that all materials and article are confidential and cannot be distributed, shared, used, or provided to the third parties for publication. Feel free to notify the Editor if you have a conflict of interest when reviewing the manuscript. **The focus of review is the manuscript's content**.

PAPER ID: 113_ICES2018

PAPER TITLE:

Re-Setlement Adaptation Model Fter Tsunami Hazard 1994 at South Beach in East Java

Author(s) : **Ketut Prasetyo[1] and Dian Ayu Larasati[2]**

Afiliation :
1. Lecturer at Department Geography, State University of Surabaya
2. Secretary of Study Center of Disaster and Environmental, State University of Surabaya

A. Evaluation Objects

Is the paper content original?:	**yes**
Does the paper title represent its content?:	**yes**
Does the abstract reflect the paper content?:	
Is the research methodology or the approach of the problem solving clearly described?:	**No**
Do the data presentation and interpretation valid and reasonable?:	**yes**
Do the use of tables and figures help to clarify the explanation?:	**No**
Have the discussion and/or analysis been relevant with the results of the study?:	**Not yet**
Are the references used relevant?:	**Yes**

Is the English satisfactory?	**Not yet**
Is the paper prepare in full accordance with the IOP's Journal's Author Guidelines	**No**

B. Recommendation (Please check appropriate box):

□ Publish as it is.
□ Publish with minor revision noted in evaluation statement.
■ Publish with major revision.
□ Reject.

C. Comments to Author:

1. Please check English spelling.
2. The author not yet rewrite this article according to reviewer suggestion before.
3. Please check the references template according to IOP's Journal's Author Guidelines.

D. Comments to Editor (optional):

LAMPIRAN KORESPONDENSI 7

"PENGIRIMAN HASIL KOREKSI PAPER DARI PANITIA"

==========

Re-Setlement Adaptation Model fter Tsunami Hazard 1994 at South Beach in East Java

Commented [A1]: Margin, ukuran kertas, dan settingan lainnya jangan di edit lagi ya Pak. Karena sudah kami edit dan sesuaikan dengan template.

Silahkan diperbaiki yang beikut ini

Ketut Prasetyo[1] and Dian Ayu Larasati[2]

[1]Lecturer at Department Geography, State University of Surabaya
[2]Secretary of Study Center of Disaster and Environmental, State University of Surabaya

Email: ketutprasetyo@unesa.ac.id

Abstract. Beached South of East Java passed by tektonik plate have tendency become area which trend 0f to tsunami disaster. Phenomenon the happening of year tsunami disaster 1994 which have swallowed good victim of soul and also estae do not cause to discourage in as resident to linger on the in place. Tsunami as source of presure adapt environment live beached resident Beached South of East Java likely not yield is same respon[inall sort of environment. On that account, passing approach qualitative and is quantitative of researcher wish to know adaptation strategy model used by resident in Beached South of East JavaProvince. Research method by use facto exspose method, while to collect data, by chosening sampel by porposive its environmental society have been hit by tsunami disaster. The result of the researched hence known that environmental adaptation strategy model at Beached South of East Java after tsunami disaster, that is is: First of Pancer model, model Pancer distinguish that its resident stand at bay and back to environment of is ex-tsunami disaster, them believe the happening of eye tsunami disaster because God destiny. Second of Lampon model, characteristic model Lampon differ from characteristic model Pancer. At Lampon model, Tsunami pasca resident leave environment which have swallowed victim, their have of migration to in more peaceful environment. Third model Watu-Ulo, at this model of resident remain to live location but they try to make barrier dam in the form of fence and crop . Gift of is name of model like Pancer model, model Lampon, and Watu-Ulo model is the name of model which pursuant to coastal environment or location the happening of tsunami knowledge of Resident about very low tsunami later;then new tsunami disaster is once experienced of by resident and also mount trust that tsunami disaster is Destiny Which Single The most, hence third this matter equip Coastal resident characteristic of South East Java in adapting with environment. Conclusion result of research is resident respon in Coast South East Java differ in accepting and avoiding tsunami disaster, while environmental adaptation model at Lampon society assessed by most peaceful. So that given suggestion that for the resident of as in Pancer and Watu Ulo is immediately given by counselling to increase awareness of resident about level of danger which possibly will befalling it, and also give training of is way of facing tsunami disaster if in a moment happened.

1. Introduction

The tsunami originated from the word Tsu means the place where the ship docked and nami was a wave. Thus the Tsunami is defined as a natural disaster in the form of waves of sea water that befall the environment where the ship is anchored. In English literature Tsunami is sometimes referred to as tidal wave, and is often translated literally as "tidal wave". This term is actually less precise because it has absolutely no connection with the tides of the sea which is generally determined by the attraction of astronomical objects. In contrast to the waves generated by the wind which only moves the upper sea water. Tsunami waves cause motion in the entire water column, from the surface to the sea floor.

According to RP Corner (1981) in Saroso BS (1996) that based on the source Tsunami can be divided into three, namely: (a) Tsunamis generated by the tectonic earthquake of the ocean floor plate; (b) Tsunamis generated by volcanic activity under the sea volcano; and (c) Tsunamis generated by avalanches on the seabed. Furthermore, it was emphasized that almost 95% of the Tsunami events were due to the tectonic earthquake of the oceanic base plate and until now it has not been predicted when or when the Tsunami will hit an area.

Relating to the position on the active volcanic pathway, historical records of Tsunami disasters often hit the coasts of our country. Since the eruption of Krakatoa in 1883 more than 30 disasters have been recorded. Based on the records of the Meteorology and Geophysics Agency (BMG) that an average of 460 earthquakes a year were recorded in Indonesia, approximately 70% were tectonic earthquakes originating from the seabed which could potentially cause a Tsunami.

The South Coast of East Java is a part of the coastal environment adjacent to the Indian Ocean tectonic plate lane and one of the coastal environments in Indonesia that was hit by the Tsunami disaster, especially in 1994 which has brought many victims of property and lives. Furthermore, according to the records of the Research and Development Agency of the Ministry of Public Works that the victims of property and lives as a result of the 1994 tsunami were as follows: 238 deaths, 15 missing, 789 injured, 992 damaged houses, 340 missing boats. Wave height and range of Tsunami to land in 1994 in the South Coast area of East Java are in Grajagan (Banyuwangi) 6.9 meters high and a range of 300 meters, in Lampon (Banyuwangi) wave height of 11 meters and a range of 300 meters, in Pancer (Banyuwangi) wave height of 11 meters and a range of 300 meters, in Rajegwesi (Banyuwangi) wave height of 14 meters and a distance of 150 meters to the coast, in Watu Ulo (Jember) wave height of 5 meters and a range of 500 meters, in Tambakrejo (Malang) wave height of 4 meters range of 50 meters while in Sine (Tulungagung) wave height of 6 meters with a range of 50 meters. But it seems that the Tsunami disaster has claimed many victims: property, objects and lives did not dampen the guts for residents on the South coast of East Java to remain in the neighborhood.

Against the background that Tsunami disasters are difficult to predict when they occur, and if they occur, they can result in victims of considerable wealth and lives, so with the knowledge that there are still many people who remain in an environment that are classified as vulnerable to Tsunami, it is interesting to reveal how environmental adaptation strategies of a community south coast of East Java.

In relation to the discussion of the environment, it is necessary to understand the existence of the Environmental Paradigm Scale paradigm (Lisa Pelstring, 1997). Broadly speaking, it is understood that New Environmental Paradigm (NEP) is a view that basically places humans part of the ecosystem, and humans are closely related to the life of the entire cosmos. So the NEP hopes humans think dialectically. Natural wealth and sustainability of its carrying capacity are always associated with human ecological responsibility and awareness. Thus, it can be understood that the NEP concept basically states that humans are part of their ecosystem and are not separate parts of it.

Regarding the study of cultural and environmental relations there are several views. First-view

Commented [A2]: Referensi dalam paragraph ditulis dengan angka saja seperti [1], [2], [3], dst. Bukan dengan (nama, tahun).

contoh

The market based on the Housing Estate Planning Guidelines is a regional shopping center whose main function as an environmental shopping center that sells daily necessities including vegetables, meat, fish, fruits, rice, flour, clothing materials, grocery items, school supplies, other household appliances [1]

Maka “Ministry of Public Works, Housing Estate Planning Guidelines, 1987” jadi yang pertama ditulis pada bagian **REFERENCES**. Karena references tidak diurut berdasarkan abjad, tapi berdasrkan yang pertama kali muncul atau digunakan dalam paragraph.

Commented [A3]: Referensi dalam paragraph ditulis dengan angka saja seperti [1], [2], [3], dst. Bukan dengan (nama, tahun).

of determinitic antrophogeography. This view states that the environment can determine culture. The culture that develops is determined by the environment. The environment in question is a natural environment such as climate, soil and topography of Meggering in Sukadana (1983). As part of the ecosystem, human existence is influenced by the environment, such as geography and climate. Different geography and climate causes different patterns and human behavior. People who live in mountainous areas have a different lifestyle than people who are high al in the coastal area. Second possibility. According to this view the environment does not absolutely determine the characteristics of culture, but only provides possibilities that are characteristic of culture. Differences in geographical conditions are only a source of cultural variation. This view is not completely wrong. Many regions have the same physical condition, but the culture of the community is different, as the culture of the Gunung Kidul community in Yogyakarta is different from the Majalengka community in West Java. This can be assessed from the results of research on environmental compatibility by MKLH as cited by Warsono (1992). Third, the view of cultural ecology was initiated by Steward (1955). According to Steward, there is a relationship between culture and environment. This relationship is seen in economic activities, especially in the production sector. Humans must initially adjust to the environment, by developing a culture in harmony with nature. According to Steward culture is not only determined by the environment, but also a creative process in which there are levels in adaptation. The fourth view of cultural ecosystemicism proposed by Cliffort Geertz. This view actually has similarities with Steward's view. The difference is that Geertz emphasizes balance. Geertz stressed that the relationship between humans and the environment is a relationship of interdependence. Therefore, humans must always create and maintain new balances on the environment (Bennet, 1976). According to the results of Geertz's (1983) research, it is known that in Indonesia history and politics are factors that determine human adaptation to the five-view adaptive dynamic environment developed by John Bennet. This view still recognizes the existence of human and environmental relations, as well as changes that occur as a result of these mutual relationships. Therefore, humans must adapt. In the process of adapting to these changes, humans have choices, even though the choice contains a problem. Related to environmental adaptation there is a theory put forward by Bell (1978). A model of interaction between individuals and the environment that involves perception, coping, and cumulative effects. A person's perception of the environment is derived from objective physical conditions and individual differences. The perception of the environment produces an optimal stimulus which ultimately forms a hemeostatic, and environmental perceptions appear as optimal limits. Furthermore stimulation of perception of the optimal range causes stress, or overload and or reactants. Then someone will coping, if successful will do adaptation or reinforcement, whereas if not successful, pressure (arousal) or stress will continue, and finally will produce cumulative effects. First and second views are more linear by placing the environment as the main cause of a culture . Both of these views do not see any influence between the environment and culture. In the third and fourth views, the recognition of the interplay between environment and culture is acknowledged. Stewards have also shown how human adaptation to the physical environment has influenced cultural characteristics, but Steward's shortcomings do not talk about how the process of mutual influence between culture and the environment and how humans develop new cultures and are related to environmental change. the view of the relationship between culture and environment turns out that Bennet's view is more complete when compared to other views. The reason used to assess the completeness of the relationship model is adaptive dynamics, in addition to a systemic concept, which also includes the process of behavioral adaptation, decision making and choices that are indirectly under regular process control. Adaptive dynamics emphasizes the element of possibilism which is ignored by ecosistemics and also the element of choice of human actions which is ignored by Steward.

Commented [A4]: Referensi dalam paragraph ditulis dengan angka saja seperti [1], [2], [3], dst. Bukan dengan (nama, tahun).

Commented [A5]: Referensi dalam paragraph ditulis dengan angka saja seperti [1], [2], [3], dst. Bukan dengan (nama, tahun).

Commented [A6]: Referensi dalam paragraph ditulis dengan angka saja seperti [1], [2], [3], dst. Bukan dengan (nama, tahun).

Commented [A7]: Referensi dalam paragraph ditulis dengan angka saja seperti [1], [2], [3], dst. Bukan dengan (nama, tahun).

Commented [A8]: Referensi dalam paragraph ditulis dengan angka saja seperti [1], [2], [3], dst. Bukan dengan (nama, tahun).

Commented [A9]: Referensi dalam paragraph ditulis dengan angka saja seperti [1], [2], [3], dst. Bukan dengan (nama, tahun).

2. Objectives and Benefits of Research

Research Objectives: 1. Knowing the attitude of the people of the South Coast of East Java against the Tsunami disaster, 2. Knowing the model of resident adaptation carried out by the community in the coastal environment after the Tsunami disaster, and 3. Evaluating the model of environmental adaptation carried out by the people of the South Coast of East Java after the Tsunami disaster.

The expected benefits of the research are: 1. As an input for the government, especially the research regional government to guide the community so that the Tsunami will not fall as many as in 1994, 2. As an ingredient to enter universities to develop adaptation models quite conducive environment.

3. Research Methods

The method used is exposure facto, using quantitative and qualitative approaches. Quantitative approaches are used to obtain data: the distance of the population's residence to the coastline, the form of the settlement layout. Whereas a qualitative approach to uncover community knowledge and perceptions of Tsunami disasters.

Affordable population in this study are people who have been affected by the Tsunami disaster in the South Coast of East Java, especially in areas that have been hit by the Tsunami disaster in 1994. Whereas to obtain data used a porous sample technique that is the people who have experienced the tsunami disaster in their environment.

4. Research Results

Based on the results of interviews with some people who had been hit by the Tsunami all explained that their knowledge of the Tsunami did not yet exist. Even the term Tsunami was only known after the disaster in 1994 ago. They do not know the origin of the cause of the Tsunami. Despite the Tsunami disaster in 1994, it turned out that the attitudes of the community towards the location of their settlements that were vulnerable to Tsunami disasters were differences between the people in Lampon Beach and Pancer Beach.

Broadly speaking, the characteristics of the people of the South Coast of East Java who had been affected by the Tsunami were mostly embraced Islam, the level of education that had been taken by most had finished elementary school, and most of the livelihoods were fishermen. In relation to the culture that is owned, the South Coast community has traditional "sedekah laut" ceremonies and they have confidence in the existence of "Nyai Roro Kidul" as the myth of the ruler of the South Sea. As traditional fishermen, they have knowledge of the existence of the "Southwest Season" danger that occurs from December to March. According to them, during the months they were forced to take a break, they did not go to sea because in that month there was a big wave and fish famine occurred.

Most of the settlements that have been hit by the Tsunami disaster are located in tidal areas. Population patterns cluster in the coastal plain. Despite the Tsunami disaster in 1994, it was evident that the attitudes of the community towards their settlement locations were vulnerable to Tsunami disasters, there were differences between the communities in Lampon Beach and Pancer Beach. The people in Pantai Pancer returned to occupy / settle in locations that had been hit by the Tsunami, while the Lampon Beach community after the Tsunami disaster largely left their settlements that had been the Tsunami disaster.

The reasons put forward by the Pancer beach community to stay in the location because of the Tsunami are disasters and God's destiny, so that if a disaster happens later it is God's destiny too. Whereas the reason stated by the Lampon beach community to move or leave the former site was hit by the Tsunami because the people felt traumatized by the disaster. Conceptually, if we use the theory of environmental psychology, as revealed by Bell, the people on the Pancer coast are not stressed by the Tsunami disaster stimulants, they can copy the Tsunami.

The situation is different between the Pancer beach community and the Lampon beach community in receiving Tsunami disaster stimulants. At the Lampon beach community there was a post-Tsunami stress. Therefore they did not want to resettle in locations that had been affected by the Tsunami.

We can observe different environmental adaptation models in the community at Watu Ulo Beach and Puger Beach. In both coastal locations the community environmental adaptation model adapts natural conditions to protect from Tsunami disasters. Whereas in Watu Ulo Beach in an environment of adaptation so as not to be affected by the Tsunami in addition to adjusting the natural conditions, they also made retaining waves in the form of artificial dikes planted with trees. In general, the layout of residential areas that have been affected by the Tsunami disaster is described as follows:

4.1. Pancer-Beached at Bayuwangi

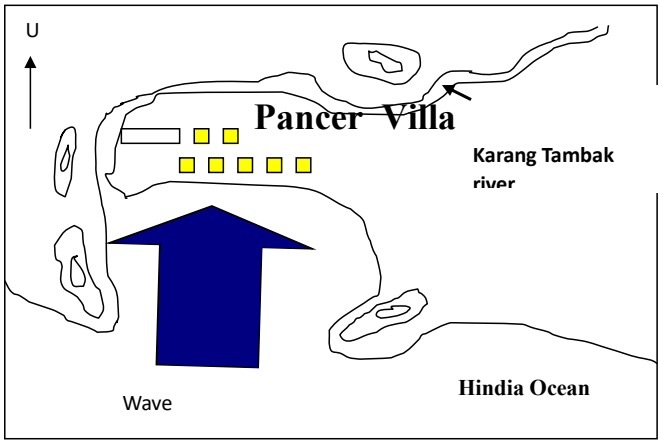


Figure 1. Site of Pancer Vilage

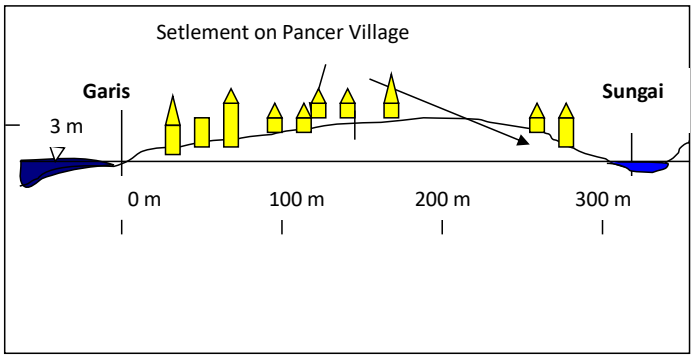


Figure. 2. Profille of Pancer Village

Based on Figures 1 and 2, it is known that the model of spatial settlement in Pancer Village on the vulnerability of Tsunami disasters is the highest. Because the resident mukim houses in Pancer Village directly face the open beach so that in the event of a Tsunami there is no barrier and immediately hit the settlement. In addition, with settlements located on the open bay-shaped beach, in the event of a tidal wave or Tsunami, there will be an accumulation of tide in the bay.

The 1994 tsunami disaster that occurred in Pancer Beach with the death of 120 dead, 526 injured, 704 houses damaged and 200 damaged and missing boats did not seem to be a meaningful lesson for the people in Pancer village. They were back again in the location that had claimed the victim in 1994. The perception of the population in Pancer that the tsunami disaster was God's destiny, so that if Tsunami happened again they resigned, did not have the knowledge to deal with it.

4.2. Lampon-village at Bayuwangi

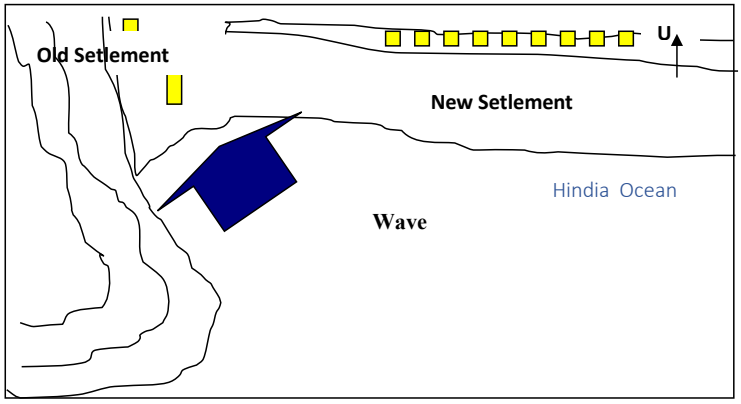


Figure. 3. Seeting of Setlement at Lampon Village- Banyuwangi

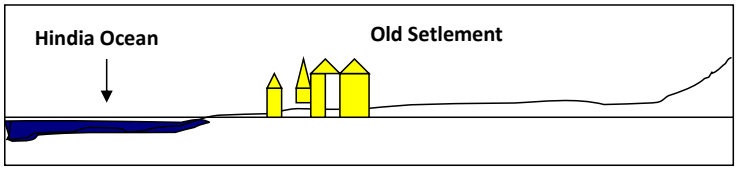
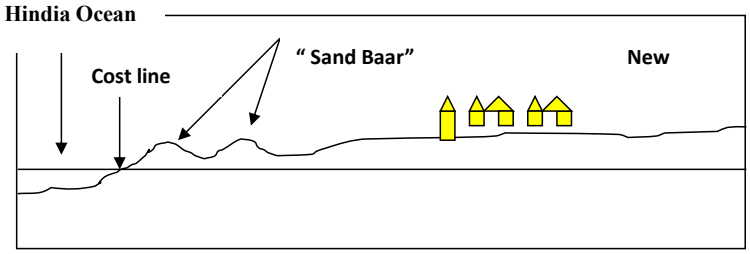


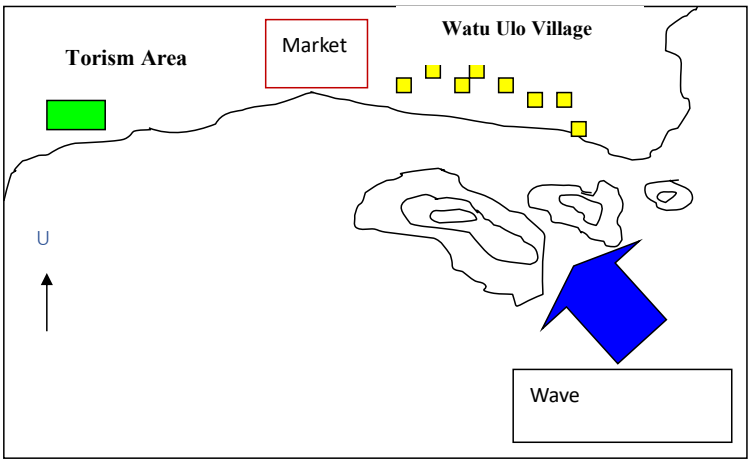
Figure. 4. Profil Setlement of Lampon Village- Banyuwangi



Fiigure 5. Profil Lampon Village- Banyuwangi

The form of the beach in the form of an open bay as can be seen in figure 4 causes the tidal wave to directly hit the beach. This condition is similar to Pancer Bay. But in adapting to the environment after the Tsunami there are differences. If in Pancer the population chooses to stay / return to live while the coastal lampon community chooses to move in a location that is considered safe from the Tsunami.

4.3. Pantai Watu-Ulo- Kabupaten Jember



Hindia Ocean

Figure 6. Setting Setlement at Watu Ulo Village-Jember

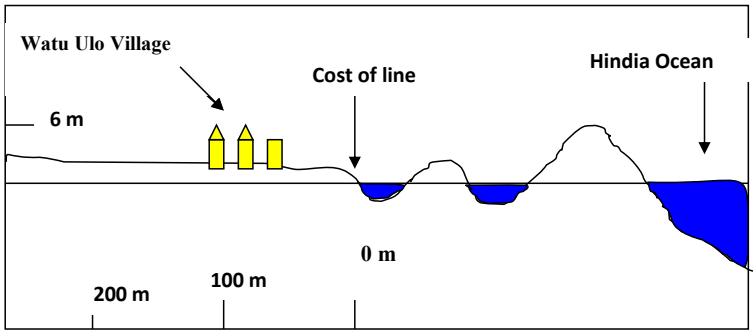
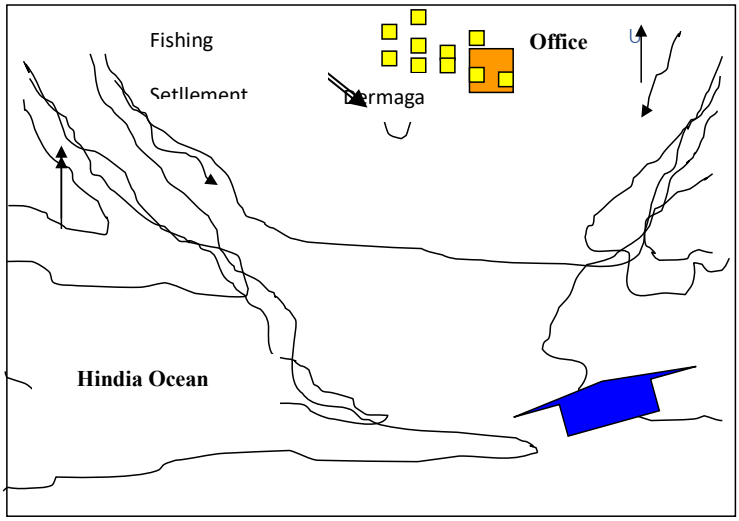


Figure 7. Profille of Watu Ulo Village-Jember

The model of environmental adaptation in the community on the Watu Ulo coast against Tsunami disasters is relatively smaller at risk when compared to the model in the Pancer Beach community and Lampon Beach. Because the choice of living location is behind the hill and planting trees as shown in Figure 7.

4.4. Pantai Puger-Kabupaten Jember



Wave

Figure 8. Seeting of Puger Village- Jember

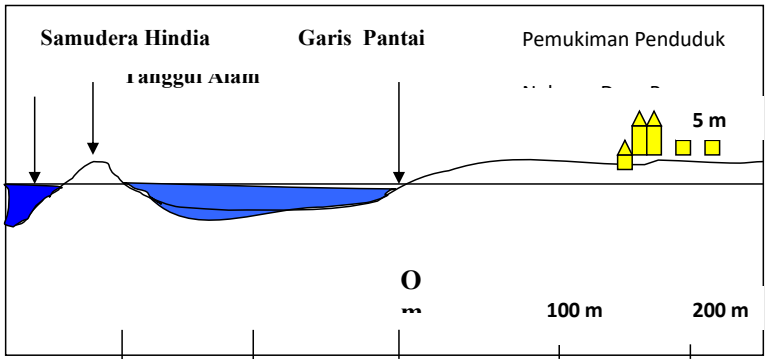


Figure 9. Profille Vilage Puger- Jember

5. Discussion of Results

Various Forms of Adaptation Models and Modeling Factors The occurrence of various models of environmental adaptation is interestin to discuss. As in the case in Pancer and Lampon. In both environments even though both victims and property have fallen, but the Pancer population showed little phenomenon that is different from the population of Pancer who remained settled and carried out economic activities in the location, while in Lampon the location of the former disaster was only used by economic activities namely the port fish catcher.

Phenomenon in Lampon and Pancer proves that the basic needs of employment will override the dangers that always threaten the body and soul. In New Environment Paradigm, the joint economy is a decisive component in quality environmental management. So that at the same time this implies that the economic phenomenon of the population is low, their lives depend on environmental conditions.

Population trust in the research area that the tsunami disaster is the destiny of God Almighty, then this phenomenon seems to identify that the character of the South Coast of East Java population in adapting to the environment was revealed by Chiras who said: environmental disaster let it happen, then naturally natural will improve itself . "

Resignation, relying on natural conditions, the phenomenon of population like this is what we need to increase their knowledge. They need to be developed to try / out to get out or overcome problems that are expected to occur.

Referring to the results of the study that the level of education of the population is relatively low, and their knowledge of tsunami disaster is low, the condition of the population like this causes obstacles to realizing or changing attitudes and behaviors in dealing with the disaster.

The Tsunami Safest Adaptation Model Referring to the environmental adaptation model in the communities of the South Coast of East Java after the Tsunami, it is known that the safest adaptation model is the adaptation model as practiced by the Puger Beach community. Then the next allater is the adaptation model in the Pesanggarahan beach community.

6. Conclusions and Recommendations

Based on the results of the research can be concluded as follows:Model adaptation of the environment of the South Coast of East Java, especially in the coastal communities that have been hit by the Tsunami disaster can be divided into three, namely: the Watu-Ulo Model (making protection), the Lampon model (moving safer residential locations) and the Pancer model (remain in a location that was hit by the Tsunami with submission)**.** Based on the evaluation results of the environmental adaptation model, the Lampon Model is the safest, while the Pancer model which is considered the most risk if there is a tsunami disaster again**.** Variations in the model of environmental adaptation are made possible by the Tsunami events they have only experienced**.** The advice given from the results of this study is In an effort to increase the ability of community knowledge about Tsunami disasters, it is necessary to provide education and training, especially skills on how to deal with Tsunamis.

For people who still live in locations that have been hit by Tsunami disasters such as in Pancer Village, it is recommended to be relocated in a safe place and need to be given awareness raising awareness about tsunami hazards that will befall them with a comprehensive approach between the government, community leaders. In the south coast communities of Java Island, especially in Tsunami-prone areas, each house is advised to prepare a float.

Based on the 1994 Tsunami that most of the victims were hit by a house, it was suggested that the people of the South Coast of East Java whose area was vulnerable to Tsunami if building a house should be sturdy and earthquake resistant.

References

[1] Bell, P.A. et al. 1978**.** ***Environmental Psycology.*** Philadelphia : W.B.Saunders Co.

[2] Bennet, W. John. 1976. The Ecological Transition: Cultural Anthropology and Human Adaptation. New York : Pergamon Press Inc.

[3] Chiras, Daniel D. 1991. Environmental Science. A Framework for Decision Making. Denver: Benyamin Co.

[4] Emil Salim. 1980. ***Lingkungan Hidup dan Pembangunan.*** Jakarta : Mutiara

[5] Everett S. Lee. 1987***. Suatu Teori Migrasi***. Yogyakarta : Pusat Penelitian Studi Kependudukan UGM.

[6] Geertz, Cliford. 1983. ***Involosi Pertanian : Proses Perubahan Ekologi di Indonesia***. Diterjemahkan oleh S. Suparmo. Jakarta : Barata Karya Aksara.

[7] Graeme Aplin dkk. 1996. ***Global Environmental Crises.*** London : Oxford University Press.

[8] Lisa Pelstring. ***Measuring Environmental Attitudes. The New Environmental Paradigm***. http/ww.ibs.msu.edu/sca/lbs335/eassy1-Picotte.html. 1997.

[9] Made, I, Putrawan.. 1996. ***Peranan Pendidikan Lingkungan Dalam Membentuk Warga Negara Berwawasan Lingkungan***.. Makalah Dalam Konferensi Nasional XIII, Pusat Studi Lingkungan, 22-24 Oktober 1996 di Denpasar, Bali.

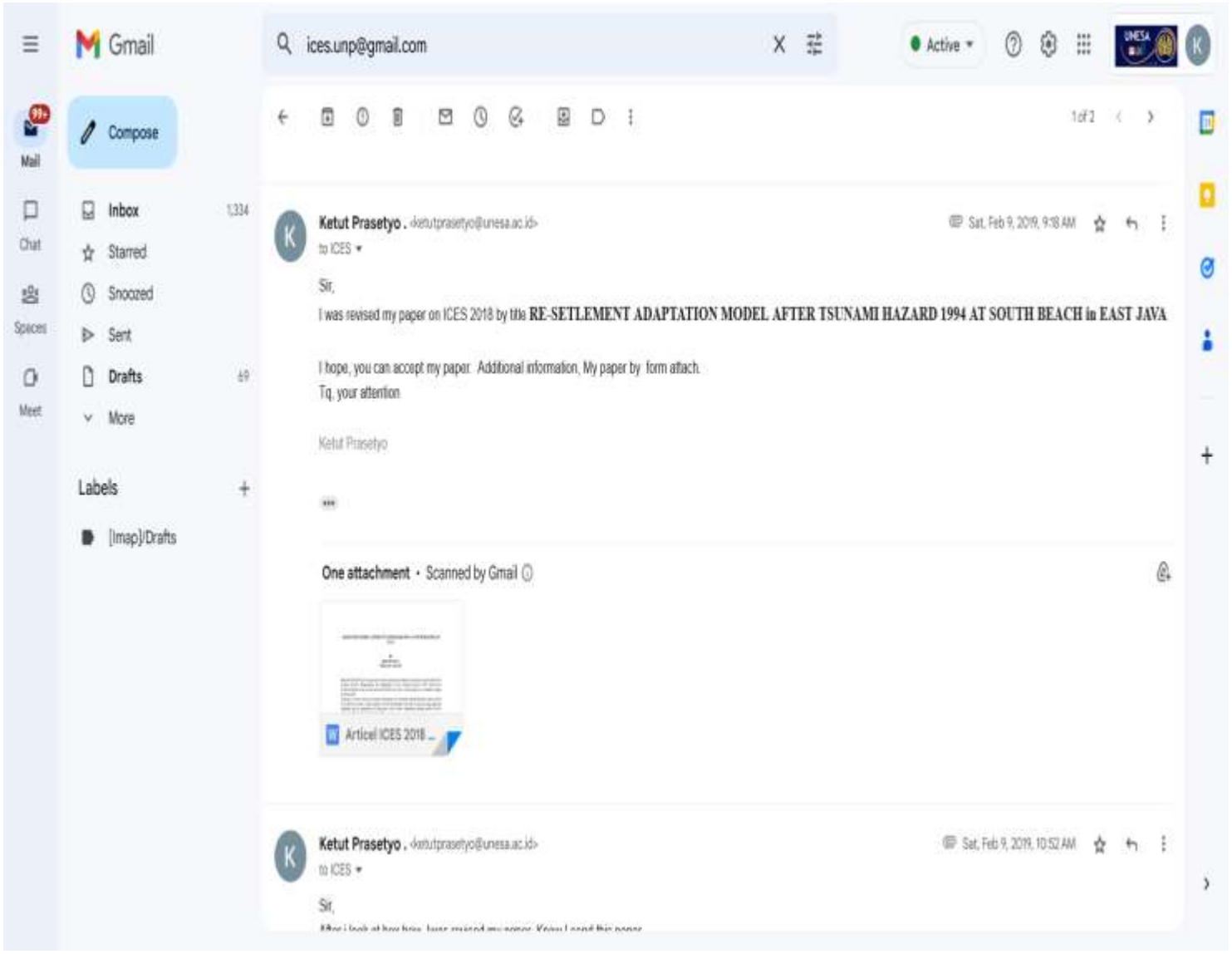
Commented [A10]: Daftar pustaka diurutkan berdasarkan penggunaan, bukan abjad pertama nama sumber.

Silahkan mengacu pada Reference Guideline untuk tata cara penulisan daftar pustaka dari buku, jurnal dll

[10] Mohamad Soerjani.2001. Ekologi. Dasar Pemahaman Tentang Lingkungan Hidup Jakarta:IPP.
[11] Rozy Munir. 1989. ***Dampak Pertumbuhan Penduduk di DKI Jakarta***. Jakarta : kerjasama antara Pusat Penelitian Pranata Pembangunan Lembaga Penelitian UI dan Biro Bina Kependudukan Dan Lingkungan Hidup DKI Jakarta.
[12] Sudharto P. Hadi.2001**.** ***Dimensi Lingkungan Perencanaan Pembangunan.*** Yogyakarta : :Gadjah Mada University Press.
[13] Sukadana,A. 1983. ***Antropologi-Ekologi.*** Surabaya : Airlangga University Press.
[14] Sumarwoto, Otto. 1987. ***Ekologi Lingkungan Hidup dan Pembangunan***. Jakarta : Jambatan.
[15] Warsono. 1992. ***Strategi Adaptif Migran Madura di Surabaya, Khususnya Bagi Golongan Kenek***. Tesis Magister Lingkungan . Jakarta : Program Pasca Sarjana UI.

LAMPIRAN KORESPONDENSI 8 .

“PENGIRIMAN HASIL REVISI PAPER KE PANITIA ICES”



LAMPIRAN KORESPONDENSI 9.

"PAPER HASIL PERBAIKAN YANG DIKIRIM VIA E-MAIL ATTACHED IOP"

ADAPTATION MODEL AFTER TSUNAMI HAZARD 1994 AT SOUTH BEACH EAST JAVA

By

Ketut Prasetyo[1]

Dian Ayu Larasati[2]

Beached South of East Java passed by tectonic plate have tendency become area which trend 0f to tsunami disaster. Phenomenon the happening of year tsunami disaster 1994 which have swallowed good victim of soul and also estate do not cause to discourage in as resident to linger on the in place.

Tsunami as source of pressure adapt environment live beached resident Beached South of East Java likely not yield is same response sort of environment. On that account, passing approach qualitative and is quantitative of researcher wish to know adaptation strategy model used by resident in Beached South of East Java Province.

Research method by use facto expose method, while to collect data by porposive sample technique.

The result of the researched hence known that environmental adaptation strategy model at Beached South of East Java after tsunami disaster, that is is :

First of Pancer model, model Pancer distinguish that its resident stand at bay and back to environment of is ex-tsunami disaster, their believe the happening of eye tsunami disaster because God destiny.

Second of Lampon model, characteristic model Lampon differ from characteristic model Pancer. At Lampon model, Tsunami pasca resident leave environment which have swallowed victim, their have of migration to in more peaceful environment.

Third model Watu-Ulo, at this model of resident remain to live location but they try to make barrier dam in the form of fence and croopes. Gift of is name of model like Pancer model, model Lampon, and Watu-Ulo model is the name of model which pursuant to coastal environment or location the happening of tsunami knowledge of Resident about very low tsunami later then new tsunami disaster is once experienced of by resident and also mount trust that tsunami disaster is Destiny Which Single The most, hence third this matter equipment Coastal resident characteristic of South East Java in adapting with environment

Conclusion result of research is resident response in Coast South East Java differ in accepting and avoiding tsunami disaster, while environmental adaptation model at Lampon society assessed by most peaceful. So

[1] Is lecturer at Department Geography-State University of Surabaya and Secretare of Study Center of Disater and Enviromental-State University of Surabaya

2.Is lecturer at Department Geography-State University of Surabaya

that given suggestion that for the resident of as in Pancer and Watu Ulo is immediately given by counselling to increase awareness of resident about level of danger which possibly will befalling it, and also give training of is way of facing tsunami disaster if in a moment happened.

INTRODUCTION

The tsunami originated from the word Tsu means the place where the ship docked and nami was a wave. Thus the Tsunami is defined as a natural disaster in the form of waves of sea water that befall the environment where the ship is anchored. In English literature Tsunami is sometimes referred to as tidal wave, and is often translated literally as "tidal wave". This term is actually less precise because it has absolutely no connection with the tides of the sea which is generally determined by the attraction of astronomical objects. In contrast to the waves generated by the wind which only moves the upper sea water. Tsunami waves cause motion in the entire water column, from the surface to the sea floor.

According to RP Corner (1981) in Saroso BS (1996) that based on the source Tsunami can be divided into three, namely: (a) Tsunamis generated by the tectonic earthquake of the ocean floor plate; (b) Tsunamis generated by volcanic activity under the sea volcano; and (c) Tsunamis generated by avalanches on the seabed. Furthermore, it was emphasized that almost 95% of the Tsunami events were due to the tectonic earthquake of the oceanic base plate and until now it has not been predicted when or when the Tsunami will hit an area.

Relating to the position on the active volcanic pathway, historical records of Tsunami disasters often hit the coasts of our country. Since the eruption of Krakatoa in 1883 more than 30 disasters have been recorded. Based on the records of the Meteorology and Geophysics Agency (BMG) that an average of 460 earthquakes a year were recorded in Indonesia, approximately 70% were tectonic earthquakes originating from the seabed which could potentially cause a Tsunami

The South Coast of East Java is a part of the coastal environment adjacent to the Indian Ocean tectonic plate lane and one of the coastal environments in Indonesia that was hit by the Tsunami disaster, especially in 1994 which has brought many victims of property and lives. Furthermore, according to the records of the Research and Development Agency of the Ministry of Public Works that the victims of property and lives as a result of the 1994 tsunami were as follows: 238 deaths, 15 missing, 789 injured, 992 damaged houses, 340 missing boats. Wave height and range of Tsunami to land in 1994 in the South Coast area of East Java are in Grajagan (Banyuwangi) 6.9 meters high and a range of 300 meters, in Lampon (Banyuwangi) wave height of 11 meters and a range of 300 meters, in Pancer (Banyuwangi) wave height of 11 meters and a range of 300 meters, in Rajegwesi (Banyuwangi) wave height of 14 meters and a distance of 150 meters to the coast, in Watu Ulo (Jember) wave height of 5 meters and a range of 500 meters, in Tambakrejo (Malang) wave height of 4 meters range of 50 meters while in Sine (Tulungagung) wave height of 6 meters with a range of 50 meters. But it seems that the Tsunami disaster has claimed many victims: property, objects and lives did not dampen the guts for residents on the South coast of East Java to remain in the neighborhood.

Against the background that Tsunami disasters are difficult to predict when they occur, and if they occur, they can result in victims of considerable wealth and lives, so with the knowledge that there are still many people who remain in an environment that are classified as vulnerable to Tsunami, it is interesting to reveal how environmental adaptation strategies of a community south coast of East Java.

In relation to the discussion of the environment, it is necessary to understand the existence of the Environmental Paradigm Scale paradigm (Lisa Pelstring, 1997). Broadly speaking, it is understood that New Environmental Paradigm

(NEP) is a view that basically places humans part of the ecosystem, and humans are closely related to the life of the entire cosmos. So the NEP hopes humans think dialectically. Natural wealth and sustainability of its carrying capacity are always associated with human ecological responsibility and awareness. Thus, it can be understood that the NEP concept basically states that humans are part of their ecosystem and are not separate parts of it.

Regarding the study of cultural and environmental relations there are several views. First-view of determinitic antrophogeography. This view states that the environment can determine culture. The culture that develops is determined by the environment. The environment in question is a natural environment such as climate, soil and topography of Meggering in Sukadana (1983). As part of the ecosystem, human existence is influenced by the environment, such as geography and climate. Different geography and climate causes different patterns and human behavior. People who live in mountainous areas have a different lifestyle than people who are high al in the coastal area. Second possibility. According to this view the environment does not absolutely determine the characteristics of culture, but only provides possibilities that are characteristic of culture. Differences in geographical conditions are only a source of cultural variation. This view is not completely wrong. Many regions have the same physical condition, but the culture of the community is different, as the culture of the Gunung Kidul community in Yogyakarta is different from the Majalengka community in West Java. This can be assessed from the results of research on environmental compatibility by MKLH as cited by Warsono (1992). Third, the view of cultural ecology was initiated by Steward (1955). According to Steward, there is a relationship between culture and environment. This relationship is seen in economic activities, especially in the production sector. Humans must initially adjust to the environment, by developing a culture in harmony with nature. According to Steward culture is not only determined by the environment, but also a creative process in which there are levels in adaptation. The fourth view of cultural ecosystemicism proposed by Cliffort Geertz. This view actually has similarities with Steward's view. The difference is that Geertz emphasizes balance. Geertz stressed that the relationship between humans and the environment is a relationship of interdependence. Therefore, humans must always create and maintain new balances on the environment (Bennet, 1976). According to the results of Geertz's (1983) research, it is known that in Indonesia history and politics are factors that determine human adaptation to the five-view adaptive dynamic environment developed by John Bennet. This view still recognizes the existence of human and environmental relations, as well as changes that occur as a result of these mutual relationships. Therefore, humans must adapt. In the process of adapting to these changes, humans have choices, even though the choice contains a problem. Related to environmental adaptation there is a theory put forward by Bell (1978). A model of interaction between individuals and the environment that involves perception, coping, and cumulative effects. A person's perception of the environment is derived from objective physical conditions and individual differences. The perception of the environment produces an optimal stimulus which ultimately forms a hemeostatic, and environmental perceptions appear as optimal limits. Furthermore stimulation of perception of the optimal range causes stress, or overload and or reactants. Then someone will coping, if successful will do adaptation or reinforcement, whereas if not successful, pressure (arousal) or stress will continue, and finally will produce cumulative effects. First and second views are more linear by placing the environment as the main cause of a culture. Both of these views do not see any influence between the environment and culture. In the third and fourth views, the recognition of the interplay between environment and culture is acknowledged. Stewards have also shown how human adaptation to the physical environment has influenced cultural characteristics, but Steward's shortcomings do not talk about how the process of mutual influence between culture and the environment and how humans develop new cultures and are related to environmental change. the view of the relationship between culture and environment turns out that Bennet's view is more complete when compared to other views. The reason used to assess the completeness of the relationship model is adaptive dynamics, in addition to a systemic concept, which also includes the process of behavioral adaptation, decision making and choices that are indirectly under regular process control. Adaptive dynamics emphasizes the element of possibilism which is ignored by ecosistemics and also the element of choice of human actions which is ignored by Steward.

OBJECTIVES OF RESEARCH

Research Objectives: 1. Knowing about Tsunami disaster, 2. Knowing the model of enviromental adaptation after the Tsunami disaster, and 3. Evaluating the model of environmental adaptation carried out by the people of the South Coast of East Java after the Tsunami disaster

RESEARCH METHODS

The method the reseached is exposure facto, and using quantitative and qualitative approaches. Quantitative approaches are used to obtain data: the distance of the population's residence to the coastline, the form of the settlement layout. Whereas a qualitative approach to uncover community knowledge and perceptions of Tsunami disasters.

RESULT OF THE RESEACHED

1. Knowing about Tsunami disaster

Referring to the results of the study that the level of education of the population is relatively low, and their knowledge of tsunami disaster is low, the condition of the population like this causes obstacles to realizing or changing attitudes and behaviors in dealing with the disaster.

Based on the results of interviews with some people who had been hit by the Tsunami all explained that their knowledge of the Tsunami did not yet exist. Even the term Tsunami was only known after the disaster in 1994 ago. They do not know the origin of the cause of the Tsunami.

Despite the Tsunami disaster in 1994, it turned out that the attitudes of the community towards the location of their settlements that were vulnerable to Tsunami disasters were differences between the people in Lampon Beach and Pancer Beach.

Broadly speaking, the characteristics of the people of the South Coast of East Java who had been affected by the Tsunami were mostly embraced Islam, the level of education that had been taken by most had finished elementary school, and most of the livelihoods were fishermen.

In relation to the culture that is owned, the South Coast community has traditional "*sedekah laut*" ceremonies and they have confidence in the existence of "*Nyai Roro Kidul*" as the South Sea India Ocean . As traditional fishermen, they have knowledge of the existence of the "Southwest Season" danger that occurs from December to March. According to them, during the months they were forced to take a break, they did not go to sea because in that month there was a big wave and fish famine occurred. Most of the settlements that have been hit by the Tsunami disaster are located in tidal areas.

Resignation, relying on natural conditions, the phenomenon of population like this is what we need to increase their knowledge. They need to be developed to try / out to get out or overcome problems that are expected to occur.

2. Model of Enviromental Adaptation After the Tsunami Disaster

Model adaptation of the environment of the South Coast of East Java, especially in the coastal communities that have been hit by the Tsunami disaster can be divided into three model : 1).the Pancer model is remain in a location that was hit by the Tsunami with submission, 2). the Lampon model is moving safer residential locations and 3). the Watu-Ulo Model is making protection.

1). **The Pancer Model**

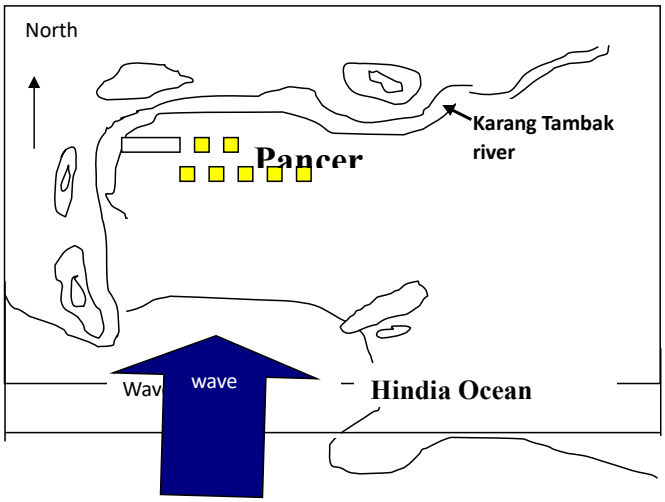


Figure 1. The map of Pancer Beached. The setlemen in Pancer Village at the open beached.

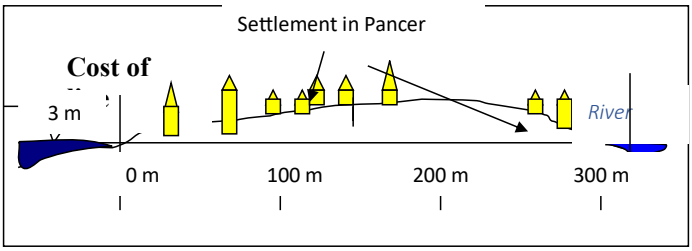
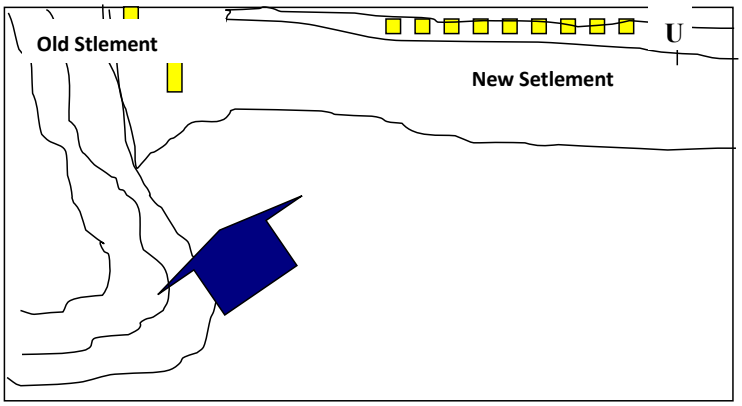


Figure 2. Profille of settlement at Pancer village, Banyuwangi distric

Based on Figures 1 and 2, it is known that the model of spatial settlement in Pancer Village on the vulnerability of Tsunami disasters is the highest. Because the resident houses in Pancer Village directly face the open beach so that in the event of a Tsunami there is no barrier and immediately hit the settlement. In addition, with settlements located on the open bay-shaped beach, in the event of a tidal wave or Tsunami, there will be an accumulation of tide in the bay.

The 1994 tsunami disaster that occurred in Pancer Beach with the death of 120 dead, 526 injured, 704 houses damaged and 200 damaged and missing boats did not seem to be a meaningful lesson for the people in Pancer village. They were back again in the location that had claimed the victim in 1994. The perception of the population in Pancer that the tsunami disaster was God's destiny, so that if Tsunami happened again they resigned, did not have the knowledge to deal with it

2). The Lampon Model



Hindian Ocean

Wave

Figure 3. The Map of Lampon Beached. Shown is old settlement and new settlement after tsunami hazar

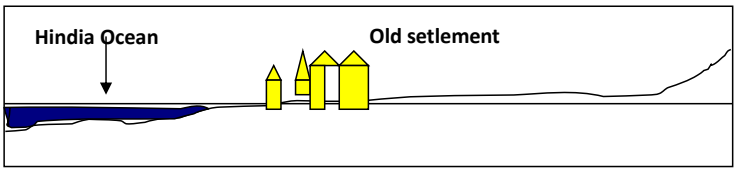


Figure 4. Lay-out of Old settlement at Lampon Beached, Banyuwangi Distri

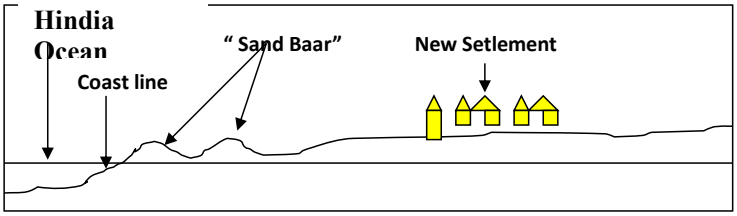


Figure 5. Lay-out of New Setlement at Lampon Village, Banyuwangi Distric

The form of the beach in the form of an open bay as can be seen in figure 4 causes the tidal wave to directly hit the beach. This condition is similar to Pancer Bay. But in adapting to the environment after the Tsunami there are differences. If in Pancer the population chooses to stay / return to live while the coastal lampon community chooses to move in a location that is considered safe from the Tsunami.

3). The Watu Ulo Model

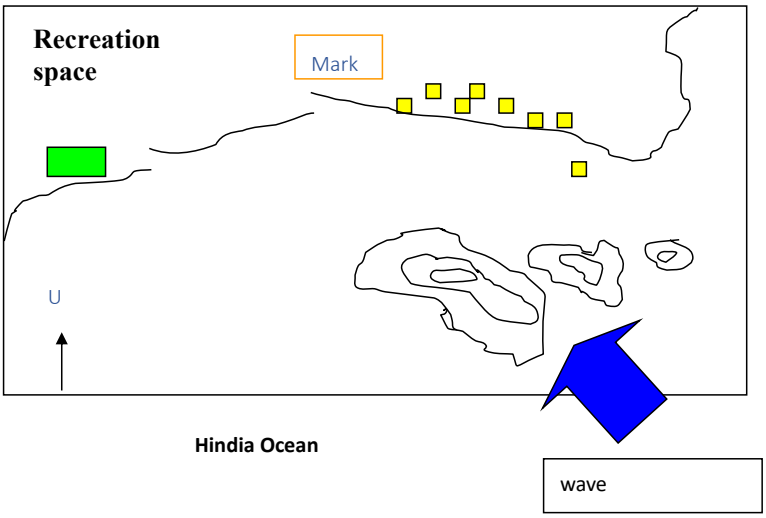
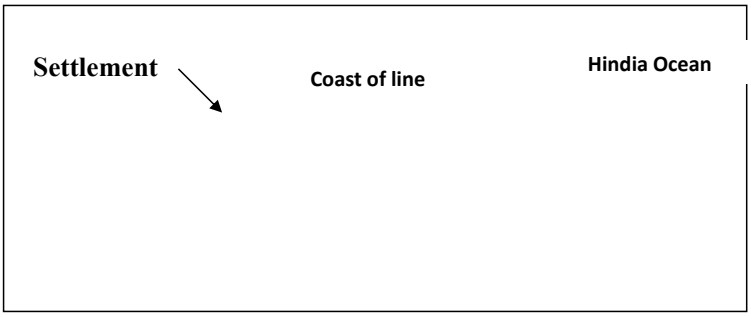


Figure 6. Map of Watu Ulo Beached- Jember Distric



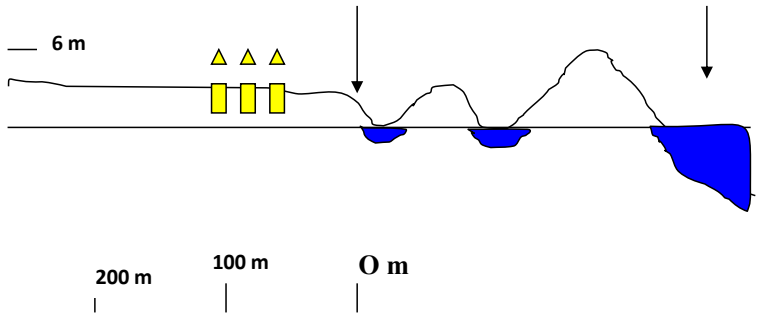


Figure 7. Lay-Out of Setlement at Watu Ulo-Jember Distric

The model of environmental adaptation in the community on the Watu Ulo coast against Tsunami disasters is relatively smaller at risk when compared to the model in the Pancer Beach community and Lampon Beach. Because the choice of living location is behind the hill and planting trees.

3. Evaluating the model of Environmental Adaptation

The Tsunami safest adaptation model referring to the environmental adaptation model in the communities of the South Coast of East Java after the Tsunami, it is known that the safest adaptation model is the adaptation model as practiced by Watu Ulo Beach community. Then the next allater is the adaptation model in the Pesanggarahan beach community.

As in the case in Pancer and Lampon. In both environments even though both victims and property have fallen, but the Pancer population showed little phenomenon that is different from the population of Pancer who remained settled and carried out economic activities in the location, while in Lampon the location of the former disaster was only used by economic activities namely the port fish catcher.

Phenomenon in Lampon and Pancer proves that the basic needs of employment will override the dangers that always threaten the body and soul. In New Environment Paradigm, the joint economy is a decisive component in quality environmental management. So that at the same time this implies that the economic phenomenon of the population is low, their lives depend on environmental conditions.

Population trust in the research area that the tsunami disaster is the destiny of God Almighty, then this phenomenon seems to identify that the character of the South Coast of East Java

population in adapting to the environment was revealed by Chiras who said: ”environmental disaster let it happen, then naturally natural will improve it self . "

Population patterns cluster in the coastal plain. Despite the Tsunami disaster in 1994, it was evident that the attitudes of the community towards their settlement locations were vulnerable to Tsunami disasters, there were differences between the communities in Lampon Beach and Pancer Beach.

The people in Pantai Pancer returned to occupy settle in locations that had been hit by the Tsunami, while the Lampon Beach community after the Tsunami disaster largely left their settlements that had been the Tsunami disaster. The reasons put forward by the Pancer beach community to stay in the location because of the Tsunami are disasters and God's destiny, so that if a disaster happens later it is God's destiny too. Whereas the reason stated by the Lampon beach community to move or leave the former site was hit by the Tsunami because the people felt traumatized by the disaster. Conceptually, if we use the theory of environmental psychology, as revealed by Bell, the people on the Pancer coast are not stressed by the Tsunami disaster stimulants, they can copy the Tsunami.

The situation is different between the Pancer beach community and the Lampon beach community in receiving Tsunami disaster stimulants. At the Lampon beach community there was a post-Tsunami stress. Therefore they did not want to resettle in locations that had been affected by the Tsunami.

We can observe different environmental adaptation models in the community at Watu Ulo Beach. In both coastal locations the community environmental adaptation model adapts natural conditions to protect from Tsunami disasters. Whereas in Watu Ulo Beach in an environment of adaptation so as not to be affected by the Tsunami in addition to adjusting the natural conditions, they also made retaining waves in the form of artificial likes planted with trees

CONCLUSIONS

Based on the results of the research can be concluded as follows:

1. The level of education of the population is relatively low, and their knowledge of tsunami disaster is low, the condition of the population like this causes obstacles to realizing or changing attitudes and behaviors in dealing with the disaster.
2. Model adaptation of the environment of the South Coast of East Java, especially in the coastal communities that have been hit by the Tsunami disaster can be divided into three, namely: the Watu-Ulo Model (making protection), the Lampon model (moving safer residential

locations) and the Pancer model (remain in a location that was hit by the Tsunami with submission) Variations in the model of environmental adaptation are made possible by the Tsunami events they have only experience

3. Based on the evaluation results of the environmental adaptation model, the Lampon Model is the safest, while the Pancer model which is considered the most risk if there is a tsunami disaster again

Reference

Bell, P.A. et al. 1978**.** ***Environmental Psycology.*** Philadelphia : W.B.Saunders Co.

Bennet, W. John. 1976. ***The Ecological Transition: Cultural Anthropology and Human Adaptation***. New York : Pergamon Press Inc.

Chiras, Daniel D. 1991**.** ***Environmental Science. A Framework for Decision Making*****.** Denver: Benyamin Co.

Emil Salim. 1980. ***Lingkungan Hidup dan Pembangunan*****.** Jakarta : Mutiara

Everett S. Lee. 1987***. Suatu Teori Migrasi***. Yogyakarta : Pusat Penelitian Studi Kependudukan UGM.

Geertz, Cliford. 1983. ***Involosi Pertanian : Proses Perubahan Ekologi di Indonesia***. Diterjemahkan oleh S. Suparmo. Jakarta : Barata Karya Aksara.

Graeme Aplin dkk. 1996. ***Global Environmental Crises.*** London : Oxford University Press.

Lisa Pelstring. ***Measuring Environmental Attitudes. The New Environmental Paradigm***. http/ww.ibs.msu.edu/sca/lbs335/eassy1-Picotte.html. 1997.

Made, I, Putrawan.. 1996. ***Peranan Pendidikan Lingkungan Dalam Membentuk Warga Negara Berwawasan Lingkungan***.. Makalah Dalam Konferensi Nasional XIII, Pusat Studi Lingkungan, 22-24 Oktober 1996 di Denpasar, Bali.

Mohamad Soerjani.2001. ***Ekologi. Dasar Pemahaman Tentang Lingkungan Hidup*** Jakarta:IPP.

Rozy Munir. 1989. ***Dampak Pertumbuhan Penduduk di DKI Jakarta***. Jakarta : kerjasama antara Pusat Penelitian Pranata Pembangunan Lembaga Penelitian UI dan Biro Bina Kependudukan Dan Lingkungan Hidup DKI Jakarta.

Sudharto P. Hadi.2001**.** ***Dimensi Lingkungan Perencanaan Pembangunan.*** Yogyakarta : :Gadjah Mada University Press.

Sukadana,A. 1983. ***Antropologi-Ekologi.*** Surabaya : Airlangga University Press.

Sumarwoto, Otto. 1987. ***Ekologi Lingkungan Hidup dan Pembangunan***. Jakarta : Jambatan.

Warsono. 1992. ***Strategi Adaptif Migran Madura di Surabaya, Khususnya Bagi Golongan Kenek***. Tesis Magister Lingkungan . Jakarta : Program Pasca Sarjana UI.