

## RELEVANCE OF LOCAL WISDOM TO TOURISM EDUCATION FOR FISHERIES RESOURCES CONSERVATION (THE CASE STUDY IN WEST JAVA PROVINCE, INDONESIA)

### RELEVANSI KEARIFAN LOKAL TERHADAP EDUKASI WISATA KONSERVASI SUMBER DAYA PERIKANAN (STUDI KASUS DI PROVINSI JAWA BARAT)

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#### ABSTRACT

Local wisdom that exists in the community is a culture of social institutions that occurs through an educational process, as in West Java Province. The potential for the development of tourism education for fisheries resource conservation through local wisdom approaches continues to be carried out by local governments. This research aims to analyze the relevance of local wisdom to fisheries resource conservation tourism education. The research method used is quantitative description and used primary and secondary data. Research time was carried out February - June 2020 and using purposive sampling 30 respondents using a questionnaire. The analytical tool used validity, reliability, and Spearman's rank correlation coefficient. Based on the research results, West Java Province has a conservation management area based on local wisdom, in Kuningan and Tasikmalaya Regency. Local wisdom that is formed the community through an educational process carried out by collaborating natural tourism with social, economic and environmental aspects. The factors form local wisdom of tourism education fishery resource conservation, that is internal variables of society, which includes beliefs, attitudes and myths as well as external variables that include binding customary norms and policies of local governments to protect and manage conservation of fisheries resources.

Keywords: conservation, education, local wisdom, fishery resources, natural tourism.

#### ABSTRAK

Kearifan lokal yang ada di masyarakat merupakan budaya pranata sosial yang terjadi melalui proses edukasi, seperti di Provinsi Jawa Barat. Potensi pengembangan edukasi wisata konservasi sumber daya perikanan melalui pendekatan kearifan lokal terus dilakukan oleh pemerintah daerah. Penelitian ini bertujuan untuk menganalisis relevansi kearifan lokal terhadap edukasi wisata konservasi sumber daya perikanan. Metode penelitian yang digunakan deskripsi kuantitatif. Data penelitian yang digunakan data primer dan data sekunder. Waktu penelitian dilaksanakan Februari-Juni 2020. Teknik pengambilan responden menggunakan *purposive sampling* sebanyak 30 responden, dengan menggunakan kuesioner. Alat analisis yang digunakan uji validitas, reliabilitas, dan analisis korelasi rank Spearman. Berdasarkan hasil penelitian Provinsi Jawa Barat memiliki daerah pengelolaan konservasi berbasis kearifan lokal, yaitu di Kabupaten Kuningan dan Tasikmalaya. Kearifan lokal yang terbentuk di masyarakat melalui proses edukasi yang dilakukan dengan cara mengkolaborasi wisata alam dengan aspek sosial, ekonomi dan lingkungan. Faktor yang membentuk kearifan lokal edukasi wisata konservasi sumber daya perikanan yaitu variabel internal masyarakat, yang meliputi kepercayaan, perilaku dan mitos serta variabel eksternal yang meliputi norma adat yang bersifat mengikat serta kebijakan pemerintah daerah dalam melindungi dan mengelola kawasan konservasi sumber daya perikanan.

Kata kunci: konservasi, edukasi, kearifan lokal, sumber daya perikanan, wisata alam.

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## INTRODUCTION

West Java Province has several a fishery resource conservation areas. Fishery resources is a type of organism that all or part of their life cycle in the water environment of land and sea (Nurhayati et al., 2020). Conditions of fisheries resources is a rare fish or decreasing the amount of production in habitat conservation efforts. Conservations of fishery resources is an effort to be protect, conserve and utilize fish resources, including ecosystems, species, and genetics to ensure their existence, availability and sustainability while maintaining and improving the quality of the value and diversity of fish resources (Law of the Republic of Indonesia Number 45, 2009).

Based on Government Regulation of the Republic of Indonesia Number 60 year 2007, conservation of fisheries resources is an effort to protect, conserve and utilize fish resources, including ecosystems, species, and genetics to ensure their existence, availability and sustainability while maintaining and improving value quality and diversity of fisheries resources. Conservation of fisheries resources is carried out through activities to protect the diversity of fish species and their ecosystems and the sustainable use of fisheries resources in a certain area. Based on the International Union for Conservation for Nature (IUCN, 2004), the definition of a protected area is a land and or water area designated for the protection and preservation of biological diversity and related natural, cultural resources, and legally managed or effective. The management of fisheries resource conservation from a socio-cultural aspect using community characteristics parameters in a fisheries resource conservation area requires education. Human awareness and concern for the environment cannot just grow naturally, but requires a process and efforts must be made to establish through environmental education or conservation education (Nurhayati et al., 2020).

The conservation education is a process that is carried out cannot stand alone but requires collaboration with nature tourism. A nature tourism park is a nature conservation area which is mainly used for tourism and nature recreation. Conservation of living natural resources and their ecosystems aims to achieve the preservation of living natural resources and the balance of their ecosystems so that they can further support efforts to improve community welfare and the quality of human life (Republic of Indonesia Government Regulation Number 60, 2007). Conservation of natural resources and their ecosystems is the responsibility of all stakeholders, including government and society. Local wisdom is formed because of the relationship between traditional communities and their surrounding ecosystems, who have beliefs, customary laws and institutions, knowledge and how to manage natural resources locally. Local wisdom is one of the means in cultivating culture and defending yourself from unfavorable foreign cultures (Wibowo, 2015).

Local wisdom is defined as a view of life and knowledge as well as a life strategy the form of activities carried out by local communities their needs (Alfian, 2013). Local wisdom is a way for people to behave and act in response to changes the physical and cultural environment (Istiawati (2016). Local wisdom is a form of knowledge, belief, understanding, insight and customs of human behavior in life (Keraf, 2005). Indigenous tribal communities are also characterized by the general

characteristics of indigenous peoples, which construct four general characteristics of indigenous peoples, namely religious, magic, communal, concrete (Soemadiningrat, 2002).

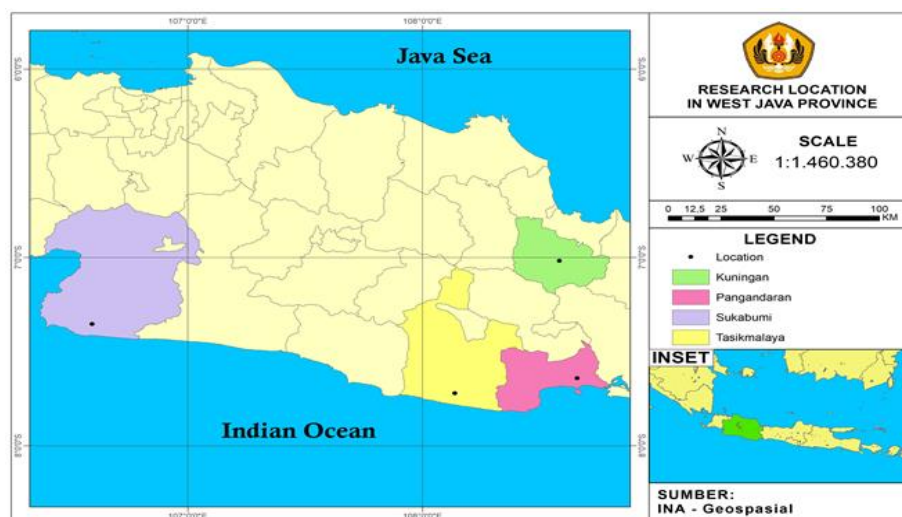
The conservation process can be carried out through education, namely conscious and planned efforts to create an atmosphere of learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, morals, and skills needed by themselves, the community, nation and state (Law of the Republic of Indonesia Number 20, 2003). Educational objectives are divided into three namely intellectual behavior: cognitive, affective and psychomotor domain (Anderson, 2001). The affective domain includes everything related to emotions, for example feelings, values, motivation and attitudes. The psychomotor domain includes physical movement and coordination, motoric skills and physical abilities. The educational process, students must be seen as multi-talented individuals, who have a relationship with themselves, with others, and with nature (Snijders, 2004).

The potential of local environment and culture has an important role in education (Barrett et al., 2015). Environment based learning focuses on nature, conservation and social change (Rickinson et al., 2009). The learning process based on the natural and socio-cultural environment means linking the natural and social environment in a learning process (Suyitno, 2016). The process of fishery resource conservation education, through conservation regeneration is a person or group of people who have received special education, who voluntarily play a role in the conservation of fishery resources and are able to convey conservation values to the community. Based on the background, it can be formulated the problem of how the relevance of local wisdom to fisheries resource conservation tourism education, a case study in West Java Province. This research aims to analyze the relevance of local wisdom to fisheries resource conservation tourism education.

## **RESEARCH METHODS**

### **Research Location and Method**

The research was conducted in Pangandaran, Sukabumi, Kuningan and Tasikmalaya, West Java province (Figure 1). This research was conducted in February - June 2020, in West Java Province. The research method used in this reserach quantitative descriptive. According to Sugiyono (2013), quantitative research methods can be interpreted as research methods that are based on events that actually occur, are used to research on certain populations or samples, data collection using research instruments, data analysis is quantitative or statistical.



**Figure 1. Research Location in West Java Province**

(Source: INA-Geospasial, 2020)

### Data Types

Primary data is data obtained directly from the object under this research, both from individual objects (respondents) and from an agency. In this interview process was conducted on informants including government figures, traditional leaders and community leaders using purposive sampling technique, as many as 30 respondents, the minimum limit for taking respondents. The central limit theorem, which states the statistical mean has a normal distribution for the sample size which is close to zero finite. In practice, however, the central limit theorem has been applied to minimum sample size of 30 (Agung, 2006). Secondary data can be obtained through literature obtained from companies related to the problem under research (Sugiyono, 2013).

### Data Collection

Primary data collected through distributing questionnaires was formed in a measurement scale. The scoring technique used in this research questionnaire is the Likert scale technique (Table 1). The used of the Likert scale according to Sugiyono (2013) is to measure the attitudes, opinions and perceptions of a person or group of people about social phenomena.

**Table 1. Questionnaire Answers Score**

Answer	Score	Interval Scale
Disagree	1	1.00 – 1.79
Less Agree	2	1.80 – 2.59
Doubtful	3	2.60 – 3.39
Agree	4	3.40 – 4.19
Strongly agree	5	4.20 – 5.00

According to Sugiyono (2010), determining the ranking in each research variable can be seen from the comparison between the actual and ideal scores. Rating scale is a data collection tool used in observation to explain, classify, assess individuals or situations. When illustrated by the formula, it will look like this:

$$\% \text{ actual score} = \frac{\text{actual score}}{\text{ideal score}} \times 100 \% \quad (1)$$

The actual score is obtained through the calculation of all respondents' opinions, while the ideal score is obtained from the prediction of the highest value multiplied by the number of questionnaire questions multiplied by the number of respondents. Explanation of the weight of the actual score can be seen in the Table 2:

**Table 2. Criteria for Percentage of Respondents' Responses**

No	% Total score	Criteria
1	20.00 – 36.00	Disagree
2	36,01 – 52,00	Less Agree
3	52.01 – 68.00	Doubtful
4	68.01 – 84.00	Agree
5	84.01 – 100	Strongly agree

## Data Analysis

### Validity test

The validity test is used to measure whether a questionnaire is valid or not. A questionnaire is said to be valid if the questionnaire is able to reveal something that will be measured by the questionnaire. This validity test used Pearson Correlation, namely by calculating the correlation between the values obtained from the questions. A question is said to be valid if the level of significance is below 0.5 (Ghozali, 2012). According to Sugiyono (2009) the test criteria if the correlation between items with a total score is more than 0.35 then the instrument is declared valid, if the correlation between items with a total score is less than 0.35 then the instrument is declared invalid, and if  $r_{\text{count}} > r_{\text{table}}$  with  $\alpha = 0.05$ , the correlation coefficient is significant. Items that have a positive correlation with the criteria and high correlation indicate that these items have high validity as well. Usually the minimum requirement to be considered eligible is if  $r = 0.35$ .

### Reliability Test

Reliability test is actually a tool to measure a questionnaire which is an indicator of a variable (Ghozali, 2012). Reliability with regard to the degree of data consistency. Researchers used the Cronbach's Alpha coefficient method, which is as follows:

$$r_{11} = \frac{k}{(k-1)} \left[ 1 - \frac{\sum \sigma_b^2}{\sigma_1^2} \right] \quad (2)$$

Informations:

$$\begin{aligned} r_{11} &: \text{Instrument Reliability} \\ k &: \text{Number of Questions} \\ \sum \sigma_b^2 &: \text{Total Item Variance} \end{aligned}$$

### Spearman's rank Correlation

A questionnaire is said to be reliable or reliable if someone's answer to a question is consistent or stable over time. Questionnaire items are said to be reliable if Cronbach's alpha  $> 0.06$  and it is said to be unreliable if Cronbach's alpha  $< 0.06$ . The method used in analyzing the relationship factors that influence the behavior of respondents in educational decision-making conservation of fishery resources using Spearman's rank correlation (Table 3).

$$r_{xy} = \frac{n \sum x_i y_i - (\sum x_i)(\sum y_i)}{\sqrt{(n \sum x_i^2 - (\sum x_i)^2)(n \sum y_i^2 - (\sum y_i)^2)}}$$

Informations:

- r : The correlation coefficient between x and y  
 Xi : Independent variable  
 Yi : Dependent variable  
 n : Number of respondents

**Table 3. Correlation Coefficient**

Correlation coefficient	Relationship Level
0.00 – 0.199	Very low
0.20 – 0.399	Low
0.40 – 0.599	Moderate
0.60 – 0.799	Strong
0.80 – 1.000	Very strong

According to Sugiyono (2008), the correlation coefficient value ranges from -1 to +1, which the utilization criteria are explained as follows:

1. If the value of  $r > 0$ , it means that there has been a positive linear relationship.
2. If the value of  $r < 0$ , it means that there has been a negative linear relationship.
3. If the value of  $r = 0$ , it means that there is no relationship at all between variable X and variable Y.
4. If the value of  $r = 1$  or  $r = -1$ , there has been a perfect linear relationship, namely in the form of a straight line, while for  $r$  that points towards the number 0, the line is getting less straight.

## RESULTS AND DISCUSSION

### General Condition of the Research Location

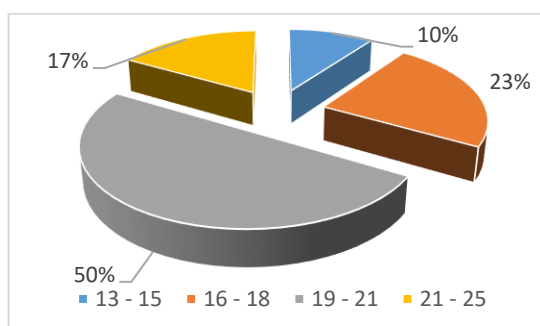
Geographically, West Java Province is located at a position of 104° 48" - 108° 48" East Longitude and 5° 50" - 7° 50" South Latitude, with the following boundaries: With territorial bordered to the north, by the Java Sea and DKI Jakarta, to the east, bordered by the Province of Central Java, to the south bordered by the Indonesian Ocean, to the west, bordered by the Province of Banten West Java Province has an area of 37,089.42 Km<sup>2</sup> with a coastline of 832.69 km (Regional Planning Board of West Java Province, 2019).

Based on the topography, West Java consists of the mountainous region of steep south, the slopes of the hill slope in the center, the area vast plains in the north, and the area watershed physical condition base north coast of West Java, which consists of the coastal plain and marshes. (Regional Planning Agency, 2020). Based on the climatology of the climate of West Java, including the tropics, with average temperatures between 16° Celsius - 34° Celsius and varying rainfall. Rainfall in West Java is in the range of 1,000 - 4,000 mm of rainfall per year (Meteorology Climatology and Geophysics Council, 2020). Rainfall in West Java is influenced by the typology of monsoons which generally have a monthly average rainfall pattern with one maximum rain peak, namely in January or December and minimum in August.

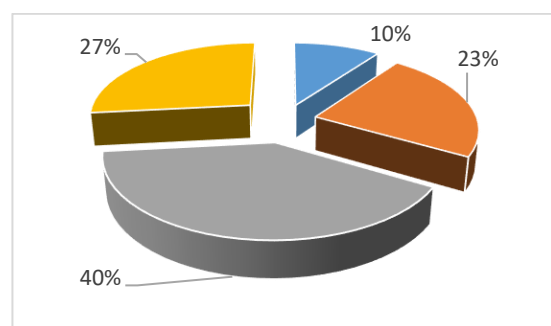
The lowest rainfall distribution is in the Northern Region (Pantura, Bekasi to Cirebon and Kuningan) and parts of the Central Region of West Java (Sukabumi, Cianjur, Bandung, and Garut) while the distribution of high rainfall covers the West-South Region (Bogor and Sukabumi), the Central Region (Purwakarta, Subang, Sumedang) and the East-South Region (Tasikmalaya, Kuningan, Ciamis, and Pangandaran). West Java Province has 18 Regencies and 9 Cities with the provincial capital in Bandung. The research location was conducted in Sukabumi, Pangandaran, Kuningan and Tasikmalaya districts. The local wisdom of conservation of fishery resources in this resrarch is divided into conservation of inland fishery resources and conservation of marine resources.

### Characteristics of Respondents

Based on this research, the age characteristics of the respondents are 50% aged 19-21 years, 25% aged 16-18 years, 17% aged 21-25 years and 10% aged 13-15 years. This condition shows that the age range of respondents is in the millennial generation and generation "Z". Millennial generations who were born in the 1980s to 2000s and are now aged 20 to 40 years and generation "Z" is the generation born from 1995 to 2014 and now. They are at the age of 25 to 6 years. Respondents taken in this reserach ranged in age from 13 - 25 years, so they are in the millennial generation and generation "Z". These cross generations contribute to the education process of fisheries resource conservation. Environmental education and local cultural arts are education that applies principles and methodologies towards the formation of life skills in students through an integrated curriculum developed in schools.



**Figure 2.**  
**Respondents Base on Age**



**Figure 3.**  
**Respondents Based on Education Level**

Based on research in the field, the characteristics of the respondents were based on the education level of 40% of students, 27% of undergraduate graduates, 23% of high schools and 10% of junior high schools. The conservation education process carried out at every level of education is a learning process to change the mindset of using natural resources, especially fishery resources for the benefit of the present without thinking about future generations, is converted into the used of natural resources, especially fishery resources wisely and sustainable function of the environment and the sustainability of the future of the next generation.

### Validity and Reliability Test Results

Based on the results testing validity all valid question items, because they have a correlation coefficient of more than 0.35. According to Sugiyono (2009) the test criteria if the correlation between

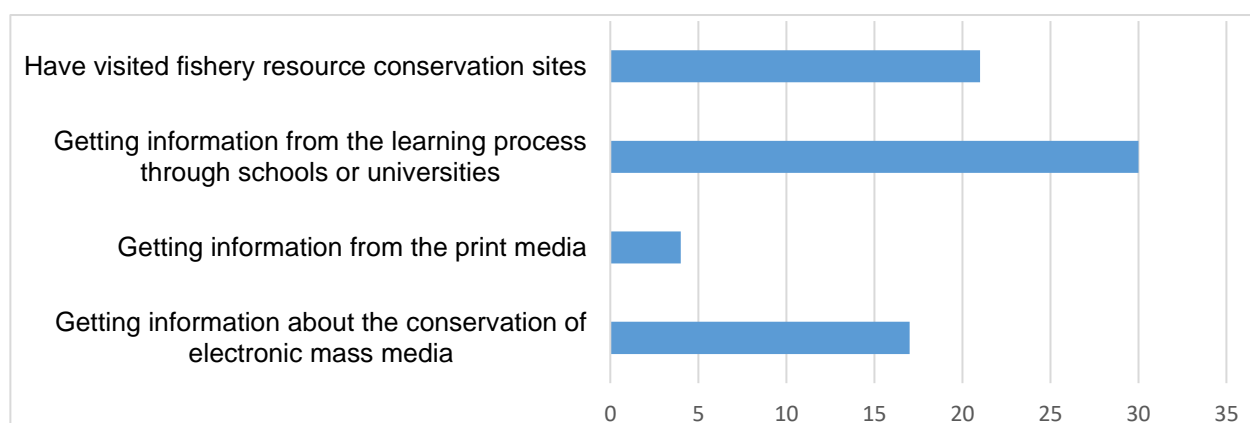


the items with a total score is more than 0.35, the instrument is declared valid. Based on research in the field, social and cultural conditions across generations have two different sides between advances in information and technology and social institutions in social life. Validity test results on variable  $X_1$  can be seen in Table 4.

**Table 4. Validity Test Results Variable  $X_1$  (Sources of Information on Conservation of Fishery Resources)**

Question	Value	Category
Getting information about the conservation of electronic mass media	0.525	Valid
Getting information from the print media	0.512	Valid
Getting information from the learning process through school or universities	0.622	Valid
Have visited fisheries resource conservation sites	0.653	Valid

Conservation education with cross generations is expected to be able to change the behavior and attitudes carried out by various parties or elements of society which aim to increase knowledge, skills and public awareness about environmental values and issues of environmental problems which is turn can move the community to take an active role in the effort, environmental preservation, safety for the benefit of present and future generations (Nurhayati et al., 2021). Sources of information on conservation of fishery resources can be seen in Figure 4.



**Figure 4. Sources of Information on Conservation of Fishery Resources**

Conservation based on local wisdom is a characteristic of the nation that must be preserved from one generation to the next generation (Ulfie, 2016). Local wisdom of fishery resources is all forms of knowledge, belief, understanding, and customs or ethics that require human behavior in life in an area considering ecological and environmental aspects (Nurhayati et al., 2021). Local wisdom is the local wisdom or local genius of a society which is derived from the noble values of cultural traditions in one area to regulate the order of community life. Local wisdom can be in the form of local wisdom, local skills, local intelligence, local resources, local social processes, local ethics, and local customs. (Gondwe and Longnecker, 2014; Berkes and Folke, 2000).

Based on the results of field research in the learning process of conservation of fisheries resources obtained through high school and universities and to obtain information concerning the conservation of fisheries resources through electronic media such as the used social media is what made the difference in the educational process of conservation fisheries resources, to keep preserve culture local wisdom customs. Validity test results on variable  $X_2$  can be seen in Table 5.

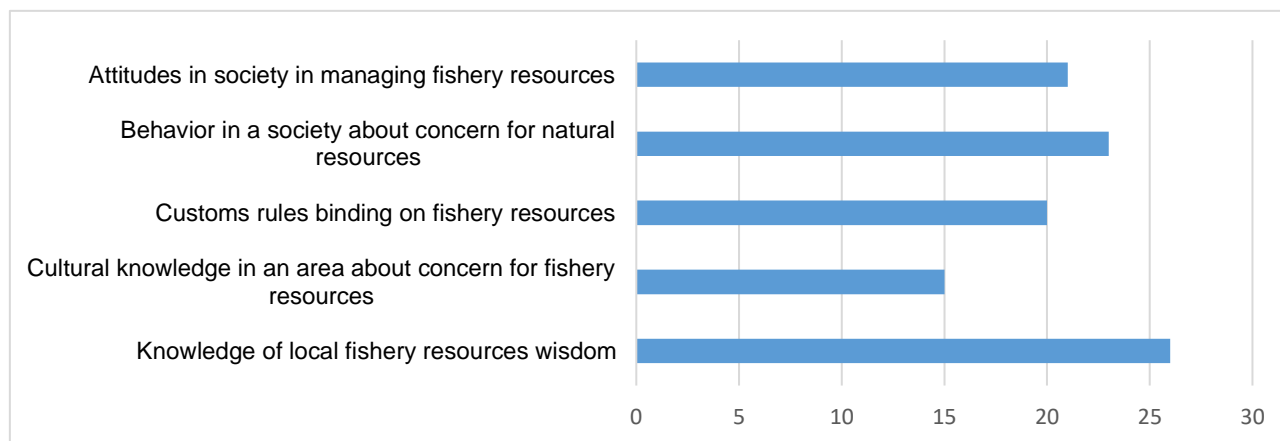


**Table 5. Validity Test Results on Variable X<sub>2</sub> (Knowledge of Local Fishery Resources Wisdom)**

Question	Value	Category
Cultural knowledge in an area about concern for fishery resources	0.423	0.423
Customs rules binding on fishery resources	0.520	0.520
Behavior in a society about concern for natural resources	0.437	0.437
Attitudes in society in managing fishery resources	0.492	0.492

Based on this research in the field, the level of respondent's knowledge about fisheries resource conservation is relatively higher than the cultural knowledge in an area about the conservation of fisheries resources related to the natural environment. The natural environment or the physical environment is anything that is natural and relatively sedentary, therefore this type of environment will be easier to know and learn from across generations in realizing the sustainability of fishery resources.

The learning process by collaborating education on conservation of fishery resources, providing knowledge and understanding of local wisdom in managing the conservation of fishery resources, with beliefs, behaviors and myths in managing natural resource conservation that occurs in the community, is expected to be able to convey the customs of the millennial generation. to generation "Z" so that these customs will not become extinct. Based on the results of this research in the field, the conservation education process needs support from central and local government policies that collaborate on the social and cultural aspects of the community. Respondents' knowledge level of fishery resources conservation can be seen in Figure 5.

**Figure 5. Respondents' Knowledge Level of Fishery Resources Conservation**

This cultural knowledge needs to be instilled in learning in schools so that local wisdom values remain sustainable (Harsojo, 2013), including knowledge of fishery resource conservation based on the suitability of geographic and demographic conditions in an area (Nurhayati et al., 2021). Learning has a significant role in the learning process of students and teachers teaching the values of local wisdom that can be used as the basis for character education in schools and in everyday life. Character education includes a very wide range of variables, some of which are character knowledge, skills, attitudes in solving problems, communication skills and expressing opinions (Berkowitz et al., 2008).

### The Reliability Test

The reliability test is used to measure the consistency of the respondent's responses to the questionnaire questions based on the respondent's understanding of the questions in the questionnaire being asked. The results of calculating the reliability coefficient for each variable are given in the Table 6.

**Table 6. Correlation Coefficient of Reliability Test**

Variable	Reliability Coefficient	Category
Knowledge of local fishery resources wisdom	0.680	Reliabel
Information on Conservation of Fishery Resources	0.669	Reliabel

Based on table 6, a reliability test conducted on items that otherwise valid question. A variable is said to be reliable if the answers to the questions are always consistent. The results of the reliability coefficient of the trust variable amounted to 0.68 the value and norm variable is 0.669.

### The Relevance of Local Wisdom to Fisheries Resources Tourism Education

The relationship factors that influence the behavior of respondents in educational decision making conservation of fishery resources, is culture, social, education and psychology. Based on this reserach culture is a variable that influences respondents behavior which is reflected in the way of life, lifestyle, habits, and family conditions to awareness local wisdom for fisheries resources tourism education. The relationship factors that influence the behaviour of respondents can be seen in Table 7.

**Table 7. The Relationship Factors that Influence the Behavior of Respondents**

Variabel	Value	Correlations
Culture (X <sub>1</sub> )	0.725	High
Social (X <sub>2</sub> )	0.678	High
Education (X <sub>3</sub> )	0.631	Stronge
Psychology )X <sub>4</sub> )	0.572	Stronge

Based on the results in Table 7, it can be seen that the correlation value of cultural factors on decisions has a value of 0.725. This value shows that there is a real positive relationship between cultural factors and conservation. The decision making of respondents in conducting education on natural resource conservation is determined by the decision making of educational institutions, families, and institutional organizations. Based on the results of research in the community in West Java, It was found that five areas, that have local wisdom traditions that conserve freshwater fishery resources, in Kuningan and Tasikmalaya districts, collaboration between local wisdom and natural resource conservation managers in the sea urtle conservation area in Ujung Genteng Sukabumi district, Sindang Kerta Tasikmalaya district and sea turtle breeding in Batu Hiu Pangandaran district.

Based on the results of research in the field, communities in West Java, especially in Kuningan district, have customs to protect fishery resources whose conditions have decreased in production. The protected fish species in Kuningan Regency is Tor Fish or in the local language it is called Dewa Fish. The picture of Tor Fish or Kancra Bodas can be seen in Figure 6.

**Taxonomy of Tor Fish**

Filum	: Chordata
Subfilum	: Vertebrata
Kelas	: Actinopterygii
Ordo	: Cypriniformes
Famili	: Cyprinidae
Subfamili	: Clupeinae
Genus	: <i>Tor</i>
Spesies	: <i>Tor soro</i>
Nama lokal	: Kancra Bodas/ Ikan Dewa



**Figure 6. Tor soro Fish**  
**Source: (Tribunnews.com, 2020)**

Local wisdom, which is etymologically meaningful the ability of a person, group of people, society to use their minds to position themselves in relation to an event, object, or situation, while the local word shows the interaction space for the event or situation to occur. So, local wisdom is basically a binding norm in the community whose truth is believed by the community and whose existence is used as a reference in daily activities and behavior. Local wisdom is an entity that greatly determines human dignity in society (Geertz, 1992).

As well as Tor soro fish is a protected fish species, especially for people in Kuningan regency, who have a cultural history and myths about the management of Tor soro fish. Local wisdom carried out by the community is through the traditional "Kawin Cai" ceremony. Tradition is a hereditary customs that are still done by the people, have the judgment or the assumption that the ways that have been there a way that is good and right. Based on research in the field, the traditional ceremony of "Kawin Cai" is attractive to the community, the Kawin Cai traditional ceremony is a traditional ceremony asking God Almighty so that the availability of water for agriculture and fisheries is sufficient by mixing water from the "Tirta Yatra Balong Dalem" spring with water from Seven wells Cibulan springs. According Ridwan (2007), local wisdom is defined as truth that has become a tradition. Local genius who is also often called local wisdom can be understood as human endeavor as being that has the cognition to act and behave towards an object, or event that occurs in an area.

Based on the results of research in the field at the "Kawin Cai" ceremony, there is a procession of taking water from Balong Dalem who is considered the groom, then the procession of taking water from Sumur Tujuh which is considered the bride, and the procession of "Kawin Cai" (mixing water taken from Balong Dalem and water taken from Sumur Tujuh Cibulan). The water mixture is then poured into the Tirta Yatra Balong Dalem spring, which is one of the water sources for the Tor soro Fish. "Kawin Cai" is a community ritual to respect and preserve the resources of the environment as a source of life for all living things. Expected to Preserve the freshwater fishery resources Kuningan regency the community can flourish and prosperous.

Based on the results of research in the field other than in Kuningan Regency, local wisdom of freshwater fishery resources is also found in Tasikmalaya Regency which is called "Tradisi Marak". "Tradisi Marak" was included in one of the forms of cultural heritage scattered archipelago region, including in the area of Kampung Naga, Tasikmalaya, West Java. "Tradisi Marak" as a form of local wisdom of the indigenous people of Kampung Naga in utilizing the fishery resources of the Ciwulan River. The uniqueness of the rife tradition that exists in Kampung Naga lies in the implementation

procedures and binding rules. Tradisi Marak is the use of fishery resources which is carried out by damming or bending the flow of the river and then after receding water, the community catches fish together. This tradition is carried out ahead of the celebration of Indonesia's independence day and welcomes government figures when visiting Kampung Naga where all residents plunge to the banks of the Ciwulan River to catch fish. Large scale exploitation of fish is only carried out once a year. The community realizes that if the fish resources in the Ciwulan River are exploited continuously all the time, then there will be no fish that can be caught while carrying out the Tradisi Marak. This local knowledge is unconsciously an effort to conserve natural resources, especially fish resources in rivers which are based on local wisdom (Nugraha, 2017).

Tradisi Marak is an example of the practice of conserving fish resources based on local wisdom. This can be seen from the division of zones in determining the location for the implementation of the rife tradition. The existence of zoning in a widespread tradition in accordance with Government Regulation no. 60 of 2007 concerning Conservation of Fish Resources which divides the conservation zone into three, namely the core zone, the buffer zone and the utilization zone. Ecologically, the Tradisi Marak can protect local fish species, protect fish spawning areas and keep the river environment clean. The implementation of a rife tradition that only once a year provides an opportunity for fish to grow and reproduce. The cleanliness of the river can be maintained because the community will clean up rubbish along the river flow when damaging it to carry out the popular tradition (Nugraha, 2017).

Based on the results of research in the field, West Java Province has turtle conservation areas, namely in the districts of Sukabumi, Tasikmalaya and Pangandaran. Turtle ecotourism is an option in promoting a unique and authenticity environment, as well as being a tourist visit. Ecotourism activities are a form of nature tourism activities, which provide benefits to environmental conservation and can provide benefits to local communities (Nurhayati et al., 2021).

Sea turtles are included in the red list in the IUCN (International Union for Conservation of Nature) and Appendix I of CITES, which means that their existence in nature is endangered so that all forms of use and distribution must receive serious attention. Sea turtle images can be seen in Figure 7.

Kingdom	:	Animalia
Phylum	:	Chordata
Class	:	Sauropsida
Ordo	:	Testudines
Sub ordo	:	Cryptodira
Super family	:	Cheloniioidea
Family	:	Cheloniidae and Dermochelyidae



**Figure 7. *Chelonia mydas***  
**Source: (www.wwf.or.id)**

The existence of ecotourism also affects the social interaction of the community. Social conditions that can be used as potential in Ujung Genteng Sukabumi Regency, Sindang Kerta Tasimalaya Regency, and Batu Karas Pangandaran Regency, include the life of traditional fishermen, food traders, shell crafts, lodging, and tour guides. The cultural potential that exists in Pangandaran is the existence of "Hajat Laut" a marine celebration tradition which is held once a year.

Based on the results of research in the field, the relationship factors that influence the behavior of respondents in educational decision making conservation of fishery resources, is culture, social, education and psychology. Tradition in an area is part of culture, without tradition it is impossible for a culture to live from generation to generation, and with the tradition of relationships between individuals and their communities, a harmonious social aspect can be built. A tradition that exists in society makes the cultural system strong. However, if the tradition in a society is eliminated, a culture will experience a condition that stops in a generation. Local wisdom that is formed the community through an educational process carried out by collaborating natural tourism with social, economic and environmental aspects. The factors form local wisdom of tourism education fishery resource conservation, that is internal variables of society, which includes beliefs, attitudes and myths as well as external variables that include binding customary norms and policies of local governments to protect and manage conservation of fisheries resources.

## **CONCLUSION AND SUGGESTION**

### **Conclusion**

Based on the reserach, in West Java, it was found that five areas local wisdom traditions that conserve freshwater fishery resources, in Kuningan and Tasikmalaya districts and collaboration between local wisdom and natural resource conservation managers in the sea urtle conservation area in Ujung Genteng Sukabumi district, Sindangkerta Tasikmalaya district and sea turtle breeding in Batu Hiu Pangandaran district. It can be concluded that the preservation of fisheries resources can be carried out through local wisdom education in the community, including the factors that form local wisdom, education in fisheries resources tourism, namely cultural, social, economic and psychological variables. Cultural factors dominate the fishery resource conservation process.

### **Suggestion**

Based on the research results, it can be suggested the need for management collaboration among stakeholders, to provide education on the importance of conservation of fisheries resources for the balance of ecosystems that have socio-economic and tourism values.

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