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FACTORS AFFECTING THE DEVELOPMENT OF FOREST TOURISM CEMARA BEACH AND ITS IMPACT ON INCOME FARMER HOUSEHOLD

(Survey of Farmers in Cidaun District, Cianjur Regency, West Java Province)

Ridwan Gunawan[1], Euis Dasipah[2]*, Agi Dahtiar[2]

[1] Cabang Dinas Kehutanan Wilayah Iv. Jl. Hanjawar Pacetrt.01 Rw.01 Ds. Pakuon-Cikanyere Kec.Sukaresmikab. Cianjur
[2]* Master of Agribusiness program, Faculty of Agriculture, Winaya Mukti University.
*Corresponding author : euisdasipah@unwim.ac.id

ABSTRACT

RIDWAN GUNAWAN, 2023. Factors Influencing the Development of Cemara Beach Forest Tourism and the Impact on Farmer Household Income. (Survey of Farmers in Cidaun District, Cianjur Regency, West Java Province).Under the Guidance of Euis Dasipah and Karyana KS.
The objective of this study is to examine the factors that impact the growth of Cemara Beach Forest Tourism and its effect on the earnings of farmer households. The respondents were selected through the census method, with a total of 65 units. The approach employed for analysis was path analysis and paired t test. The study revealed that the attractiveness and tourism environment of Cemara beach forest, which includes Attractions, Amenities, Accessibility, and Auxiliary Services, had a good achievement level of 72.90%. Supporting Institutions for tourism also achieved a good criterion of 65.85%. Additionally, community participation showed good conditions with a good criteria achievement level of 61.92%. The development of Cemara Beach Forest Tourism attained a good criteria achievement level of 77.93%. Tourist Attraction and Environment had a positive correlation r = 0.89, indicating a very close relationship with Supporting Institutions. This suggests that the better the Supporting Institutions are, the better the Tourist Attraction and Environment. Community Participation demonstrated an indication of a very close relationship with Tourist Attraction and Environment. This implies that community participation increases with better tourist attractions and the environment. Supporting Institutions had a positive correlation r = 0.89 with community participation, indicating a close relationship. This implies that the better the Supporting Institutions, the better the community participation. Tourist Attraction and Environment, Supporting Institutions, and Community Participation had a positive effect on the development of Cemara beach forest tourism, with tourist attraction having the greatest influence at 46.85%, followed by Supporting Institutions at 25.82%, and Community Participation at 23.58%. The development of Cemara coastal forest tourism had a positive impact on the income of farmer households, increasing it by an average of 67.16%.

Keywords : *Tourism, Forest, Beach, Fir, Income*

INTRODUCTION

As a business field, the tourism industry is not only a supplier of foreign exchange and the main power of the country, but also geographically can be considered a determining factor in determining the location of the industry that will make a contribution. This is done to maximize the use of available resources in the local area. (Ramdan, M.,dkk. 2024).

This tourism sector will be able to donate to efforts to accelerate economic development as a whole, including the diverse tourism potential (natural, cultural & ecological), especially those owned by the coastal areas of Cianjur Province, can be utilized optimally. A study (Muawanah, Triyanti, & Soejarwo, 2020) found that the impact of marine forest tourism on Alor Island could multiply the income of local communities. The positive impact caused by not only boosting economic growth, expanding employment opportunities, increasing per capita income, but as a potential source of PAD. (Pranowojati, D., dkk. 2024).

Especially the southern coastal area of Cianjur Province which is directly adjacent to other countries is an area that is prone to various ecological changes. Razak, et al. (2017) reported that the influence of accessibility and diversification of tourist attractions on the economy of the community in

the marine tourism sector is very significant. As a crucial sector in local economic development, tourism has the potential for synergy with other sectors and makes a great contribution to regional income. In addition, tourism can also be a driver of the local economy by opening up job opportunities, encouraging community participation, and acting as a local marketing tool. (Oktaviani, N., dkk. (2023).

Therefore, the tourism sector can provide an impetus in increasing job opportunities. This is in line with the growth of tourism which is the mainstay, and can also spur other related sectors. Cianjur Regency has a variety of interesting tourist attractions that are visited by many tourists. In addition to its enchanting natural beauty, this area is especially known for its cool air temperature and its well-developed facilities. In addition, distance also affects the number of tourists who prefer to visit these tourist attractions. So far, tourism development in the South Cianjur region has been hampered by infrastructure problems. Of course, this happens because the southern area is still less in demand by tourists than the northern area of Cianjur. In the plan for next year, the relevant parties are preparing a development plan for Jayanthi Beach in South Cianjur. Therefore, relevant parties continue to encourage stakeholders to work together to advance tourism development in South Cianjur. (Marina, I. (2016).

Natural tourism supported by various local cultural values that are not owned by other regions in West Java, Cianjur attracts the attention of residents from various regions. One of them is the Gunung Padang Megalithic Site, the oldest Stone Age site in the world, which is accompanied by 75 km of ruins. The long stretch of beach from Cidaun Regency through Sindangbarang to Sukabumi Province and neighboring Agrabinta has a unique maritime charm unlike any other southern coast of Java. Left behind by modern developments, this pristine beach will soon be developed in line with the development of marine tourism that combines local wisdom to boost the economy of the South Coast. In relation to the description above, it is interesting to note the development of tourism in Cidaun Beach on the composition of farmers' family income in West Java and the factors that affect farmers' families.

MATERIALS AND METHODS

Research Techniques

'The technique used is a survey of a number of analysis units from some members of the farmer population in the Cemara-Cidaun Cianjur Beach Forest Tourism area. In the form of verifiable research (Explanatory). The main objects or variables of this research are: Factors that affect it are: Tourism Services, Tourism Institutions and Community Participation; the success of the development of Cemara Beach Forest Tourism - Cidaun Cianjur; and Farmer Household Total Income (RTP).

Variable Operationalization

The variables in the study are grouped into three factors, namely: Tourism and Environmental Attraction Variables (X1), Tourism Supporting Institutions (X2), Community Participation (X3), Coastal Forest Tourism Development (Y) and Total Income of Farmer Households (Z)

Source and Method of Data Determination

The data used includes primary and secondary data. Primary data was obtained from interviews and filling out questionnaires conducted on farmers as respondents. Meanwhile, secondary data was obtained from related agencies and library references relevant to the research.

Respondent Determination Techniques

The technique for determining respondents was determined based on a census obtained by a total of 65 respondents consisting of farmers around the Cemara Beach Forest Tourism area, Cidaun District, Cianjur Regency. Actively participate in their daily activities related to the Cemara Beach Forest Tourism and they are members of the Forest Farmers Group (KTH).

Hypothesis Analysis and Testing Techniques

The method of analysis and hypothesis testing used is one-way regression analysis.

Place and Time of Research

The study was carried out in the Cemara Beach Nature Tourism area, which is located in the Cidaun District, Cianjur Regency, West Java, for a period of about three months.

RESULTS AND DISCUSSION

The survey was conducted among farmers near tourist attractions in Cidaun District, Cianjur Regency, West Java. Farmers consider the existence of Cemara Beach Forest Tourism to be very positive. Its existence is also the result of the creation and efforts of independent farmers who are members of the Forest Farmers Group. It took about 12 years to develop the Cemara forest area by the sea, and it has now become an attractive tourism destination for locals as well as tourists from outside the city and district. One of the attractions it creates is the existence of this ecologically functioning Cefir forest that can withstand coastal wear and erosion as well as strong winds on the south coast. Another function is to create a green atmosphere and feeling, making it a tourist attraction and tourist destination. As a synergy, activities that create business opportunities and jobs are starting to grow. The impact that can be enjoyed by the community, especially farmers, is an increase in non-agricultural activities which has an impact on increasing the gross income (RTP) of farmer households. It is necessary to develop the existence of tourism resources with cypress coastal forests as the parent product. In addition, this research talks about any factors that affect the growth of coastal tourism in the Cemara forest which is quite rarely visited. The survey results are based on information from 65 people taken by survey in December 2022 as an Early/Preliminary Survey effort. The information from the study was processed in tables to display the data and test the hypothesis.

Karakeristik Responden

Age of Respondents

The age range of the respondents was between 35 and 60 years old, with an average age of 45 years. This indicates that they are in a productive period. The majority of them are between 35-44 years old, with a percentage of 53.85%. Data on the age of all respondents can be seen in the table below.

Table 1. Age of Respondents

No	Age	Number (people)	%
1	Less than 35 years old	3	4.62
2	35–44 years	35	53.85
3	45–54 years	14	21.54
4	55 Years or older	13	20.00
	Total	**65**	**100.00**

Respondent's Formal Education

From the latest education data obtained from the respondents, it can be seen that the majority of them have completed high school education. However, the figure is higher among those who have completed primary education. Data related to the respondents' formal education background can be found in Table 2 listed below.

Table 2. Respondent's Formal Education

No	Formal Education	Number (Person)	%
1	SD	14	21,54
2	SMP	21	32,31
3	SMA	25	38,46
4	College	5	7,69

Pengalaman Berusahatani

The average farming experience of respondents was 28 years. The experience is very long, with 28 (43.08%) of them having 21 to 30 years of experience. Complete farming experience. Respondents are shown in Table.3.

Table 3. Farming Experience

No	Farming Experience	Number (Person)	%
1	31 or more	and	29,23
2	21-30 years old	28	43,08
3	10-20 years	18	27,69
4	Less than 10	0	0,00

Total	65	100,00

Family Dependents

Family members are dependents for farmers as the head of the family and also have influence on agriculture in applying agricultural technology. RTP families have an average of 4 dependents. This can be felt as a fairly heavy burden. The list of all respondent families is in Table 4.

Table 4. Family Dependents

No	Family Dependents	Number (Person)	%
1	2 people or less	**5**	**7,69**
2	3 orang	**22**	**33,83**
3	4 orang	**31**	**47,69**
4	5 or more people	**7**	**10,77**
	Total	**65**	**100.00**

Area of Cultivated Land

Generally, the size of farmland utilized by respondents for rice farming is 0.25 hectares. The size of land managed by farmers is related to their motivation in applying technology, managing land, or carrying out other non-agricultural activities. Data on the distribution of land area managed by respondents can be seen in Table 5.

Table 5. Respondents' Cultivated Land Area

No	Land	Number (people)	%
1	< 0.25 ha	48	73.85
2	0,25 s.d 0,50 ha	15	23,08
3	0,51 a s.d. 1,000	2	3,08
4	>1.0 ha	0	0.00
	Total	65	100

Economic Aspects of Paddy Rice Farming

Investment Capital, Fixed Costs and Variable Costs

Rice farming is an activity that is always maintained and as a staple source of livelihood for farmers even though the area of cultivated land is relatively small. The purchase of seeds, fertilizers, and pesticides is a necessity in rice farming. The necessary production facilities and infrastructure include land, labor, agricultural tools, seeds, fertilizers, and pesticides. Respondent farmers use several tools such as sprayers, hoes, machetes, and so on for rice farming. The investment cost for each of these tools is around Rp 1,035,385 for an average land area of 0.25 ha. However, the cash capital owned by Agriculture is still limited compared to the total production costs required. The average cash capital owned by farmers is Rp 2,500,000 for an area of 0.25 ha and is used to buy seeds, fertilizers, and pesticides needed in rice farming.

Fixed Fees

The fixed expenditure incurred in paddy rice farming activities in Cidaun District is for land rental costs even though the land is owned by farmers, maintenance costs, capital interest (although the capital used is entirely internal) and equipment amortization. Many farmers are not willing to borrow capital from interest-based financial institutions. This is because interest is a riba that is strictly prohibited by the religion and beliefs of farmers. The reason is because there are many farmers in the field who take advantage of loans that are subject to interest, therefore it needs to be calculated carefully. The details are listed in table 6.

Table 6. Fixed Cost of Paddy Rice Farming in 2002.

Fixed Fees	Per Land Area 0.25 ha Value (Rp)	For ha Value (Rp)
Maintenance	51.769	345.128
Shrinkage Tool	185.206	1.234.708
Land Lease	509.231	3.394.872
Capital Interest	160.343	1.068.954
sum	906.549	6.043.662

Variable Costs

Variable costs for paddy rice farming consist of seed costs, NPK chemical fertilizers, chemical costs, and labor costs. At the time of the survey, it can be said that farmers still do not use organic fertilizers. The variable cost incurred is IDR 2,499,399 per 0.25 ha of land area or IDR 9,816,370 per hectare. For more information on variable costs. Below is a detailed overview of the area = 2.93 hectares and variable cost per hectare.

Table 7. Variable Costs of Paddy Rice Farming in the 2020 Planting Season.

Description	Per moon 0.25 ha		For ha	
	Physical	Value (Rp)	Physical	Value (Rp)
a. Means of production				
- Seeds (kg)	637|	159.135	25,00}	625
- Urea gun (kg)	50,92	305.538	200	1.200.000
- Pupuk NPK (kg)	101,85	662	400	2.600.000
- Medicines (it)	1,02	203.692	4	00.000
b. Outpouring of Work (HKP)	21,26	1.169.033	83.48	4.591.370
Sum		7.499.399		0316370

The total amount of expenditure for paddy rice farming consists of fixed costs and variable costs in each season. The average total cost incurred is Rp 3,355,904 for each land area of 0.25 ha or Rp 13,180,287 per ha.

Production, Productivity and Reception

The income obtained from paddy rice farming is highly dependent on production costs, productivity, and the selling price of products that are in accordance with their quality. High levels of productivity and optimal yields essentially depend on the type, level, and application of the technology used. Although the maximum productivity depends on the specifications and capacity of the plant, in conventional rice, the increase in productivity usually reaches between 6.00 to 9.00 tons per hectare. The average productivity achieved is 5,891 kg/ha. This performance is still well below the maximum capacity and is therefore still within normal limits. Details of rice paddy productivity. The table below shows the average yield, productivity and income per land area and hectares.

Table 8. Production, Productivity of Paddy Rice Farming in 2002

Description	Average Per luas = 0.25 ha	Per ha
1. Products	1500	5.891
2. Price	4,000 and 5,000	
3. Acceptance		
	15.768.000	31.590.155

The productivity achievement reached 5,891kg/ha and still has the potential to be increased to reach 7 to 9 tons/ha. The income received by respondents depends on the number of products

produced and their selling price. The selling price at the time of the study varied between Rp 4,500/kg and Rp 5,000/kg depending on the quality.

Income and Efficiency of Farming

The profits of agricultural businesses (in the sense of the concept of income) are influenced by factors such as production costs, crop yields, and the price of raw materials. If the cost of production is higher, then the profit from the agricultural business will be lower. However, good production performance and high raw material prices will have a positive impact, because the higher the yield and the higher the price of raw materials, the higher the profit from the agricultural business obtained. The advantage of an agricultural business is the difference between total income and total costs. For an area of 0.25 ha, farmers' income is Rp 3,628,711 or Rp 14,251,737 per ha. Details of rice respondents' income and Table 9.

Table 9. Cost of Rice Farming Income in 2020

Description	Sum Per Luas 0.25 ha (Rp)	Per hectare (Rp)
Acceptance	6.984.615	27.432.024
Total Cost	3.355.904	13.180.287
Income	3.628.711	14.251.737
RC		2,06

The concept of efficiency is often used in farming to evaluate the performance of production activities. There are many formulas used to measure efficiency, including R/C which compares sales results with total costs incurred. R/C also helps determine the level of profit obtained from farming. The average R/C is 2.06, which means that each rupiah of costs incurred generates revenue of Rp. 2.06 or profit of Rp. 1.06.

Variety of Tourist Attractions and Environment (X1)

The calculation was carried out using frequency methods and scoring techniques. The determination of the criteria is based on statistics taken from the number of respondents (65 people). The maximum score that can be obtained is 2860, while the minimum score is 715. The score range is 2145, with class size of 4 and class length of 536. From these results, the level of achievement achieved can be obtained.

Attraction Achievements (X11)

Attractions arise from man-made creations or man-made resources (SDB). One of them is the diversity and diversity of art and culture. Bicycles such as sports bikes and off-road bicycles that can be developed by the community and used for tourism. The performance level of the attraction reached 67.31%. This is a good standard and is fully represented in Table 10.

Table 10. Attraction Achievement Level (x11)

Dimensions/Indicators	Frequency on Farmer Score				Shoes	Shoes	Achievement level
Atraksi	4	3	2	1	Access	Hope	(%)
Natural Resources Attractions	0	48	15	2	176	260	67.69
SDB Attractions	0	49	11	5	174	260	66,92
Sum	0	97	26	7	350	520	67,31

Facility Achievements (x12)

the availability of tourism facilities in the form of service offices and their management; special/skilled personnel to cleaners have not achieved what is ideally expected. Everything is still going simply. The achievement rate of 61.99% meets the Sufficient standard, the full details can be seen in Table 11.

Table 11. Facility Achievement Level (x12)

Dimensions/Indicators	Frequency on Farmer Score				Shoes	Shoes	Achievement level
Amenities	4	3	2	1	Access	Hope	(%)
Availability of basic infrastructure	1	40	22	2	170	260	65,38
Tourism facilities	0	40	16	9	161	260	61,92
Sum	1	80	38	11	331	520	63,65

Accessibility (x13)

the availability of tourism facilities in the form of service offices and their management; special/skilled personnel to cleaners have not achieved what is ideally expected. Everything is still running easily. The percentage of achievement reached 74.42% with the Good criterion. More detailed information can be found in Table 12.

Table 12. Accessibility Achievement Level.

Accessibility Dimensions/Indicators	Farmer frequency on score				shoes	shoes	Achievement level	Criterion
	4	3	2	1	Access	Hope	(%)	
Tourism-related infrastructure	9	40	16	0	188	260	72,31	Good
Tourism-related facilities	8	53	4	0	199	260	76.54	Good
Sum	17	93	20	0	387	520	74,42	Good

Additional Service Achievements (x14)

Additional services (aucillary service), in this case include: Accommodation accommodation; Entertainment and culinary accommodation; and Worship Accommodation and others. Accommodation is available in the form of hotels or inns with jasmine classes. No star hotels are available yet. Likewise, entertainment and culinary have not yet developed, such as food with seafood main menus. Accommodation for worship facilities is available simply. The level of results of the Provision of Additional Services was obtained 73.05% of the Good standard, more details are explained in Table 13 below.

Table 13. Level of Achievement of Additional Services

Dimensions/Indicators Aucillary Service	Farmer frequency on score				Shoes	Shoes	Achievement level	Criterion
	4	3	2	1	Access	Hope	(%)	
Lodging	0	49	15	1	178	260	68.46	Good
Entertainment and food	34	8	22	1	205	260	78.85	Good
Worship	16	22	22	5	179	260	68.85	Good
Sum	50	79	59	7	562	780	72.05	Good

1. Environmental Achievement (x15)

The benefits of preserving the coastal environment with spruce trees are very pronounced and set an example for many visitors and tourists. The environmental achievement rate was achieved with the Very Good criterion of 87.50%, the details are presented in table 14 below.

Table 14. Environmental Achievement Level (X15)

Environmental Dimensions/Indicators	Farmer frequency on score				shoes	shoes	Achievement Rate %	Criterion
	4	3	2	1	Access	Hope		
Environmental ecological function	36	25	4	0	227	260	87,31	Excellent
Environmental Aesthetic Function	37	24	4	0	228	260	87,69	Excellent
Sum	73	4900	8	0	455	520	87,50	Excellent

Recapitulation of Tourism and Environmental Attraction Achievements (X1)

The appeal of tourism as a tourist destination combines facilities and services in different ways, as well as cultural, economic and environmental contexts, which consist of dimensions: Attractions, Services,. Accessibility and support services reached 72.90%, Good criteria. Of the five dimensions, the highest achievement is concern for the environment which reaches the very good criteria of 87.50%. However, the lowest achievement was in services (amenities) of 63.65% of the good criteria and 67.31% of the good criteria of attractions. The recapitulation of the Achievement Level of Attraction and the environment is presented in Table 15.

Table 15. Recapitulation of the Level of Achievement of Tourism Attractions and the Environment.

Credit/Capital Dimensions/Indicators	Farmer frequency on the score				Shoes	Shoes	Achievement Rate %	Crete
	1	2	3	4	Access	hope		
Attraction	0	97	26	7	350	520	67.31	Good
Amenities	1	50	38	11	331	520	63.65	Good
Accessibility (Accesibities). (X,3)	17	93	20	0	387	520	74.42	Good
Additional Services (aucillary service).	50|	79	50	7	562	780	72.05	Good
Caring for the Environment	73	49	5	0	455	520	87,50	Excellent
Sum	141	398	151	25	2085	2860	72.9	Good

Tourism Supporting Institutions (X2)

Based on the number of respondents as many as 65 people, the number of criteria determination points was determined statistically. The highest total score that can be achieved is 2600, while the lowest total score that is still allowed is 650. The area taken is 1950, with the number of classes as many as 4 and the length of classes reaching 488. Thus, the level of achievement can be obtained.

Institutional Achievements of Customs and Culture (X21)

According to the information received, there are no local traditional arts and culture associations inherited from ancestors. The functions of customary/cultural institutions have not been specifically identified or specific. The Achievement Level of Customary and Cultural Institutions reached 61.15% with the Good criterion. More detailed information is given below in Table 16.

Table 16. Customary and Cultural Institutional Achievement Level (X21)

Dimensions/Indicators Klb Adat /budava	Farmer frequency on score				shoes	shoes	Level Achievement (%)	Criterion
	4	3	2	1	Access	Hope		
Existence (Number)	0	49	11	5	174	260	66.92	Good
Functions and roles	1	40	2	22	170	260	65.38	Good
Sum	1	89	33	7	344	520	66.15	Good

Environmental Institutional Achievements (X22)

Environmental institutions are important to support tourism development. The Institutional Function of the Environment has not been specifically identified or specific. The level of Environmental Institutional Achievement reached 67.12% with the Good criterion. More detailed information is given below in Table 17.

Table 17. Environmental Institutional Achievement Level (X22)

Environmental dimensions/indicators	Farmer frequency on the score				Shoes	Shoes	Achievement Rate %	Criterion
	4	3	2	1	Access	Hope		
Existence	0	40	16	9	161	260	61.92	Good
Functions and roles	9	40	16	0	188	260	72,31	Good
Sum	9	80	32	9	349	520	67.12	Good

Transportation Institutional Achievements (X23)

The available transportation is AKAP (intercity and interstate) bus transportation. AKP (intercity within the state). In addition, these are the rules that apply to the implementation of transportation. The next question is the extent of this function and whether it can be a supporting factor for the development of related tourism. According to the interviewee, it is considered a good thing. Transportation proficiency level 78.46% Good standard. Further details are given in Table 18.

Table 18. Transportation Institutional Achievement Level (X23)

Dimensions/Indicators of the transport environment	Farmer frequency on the score				Shoes	Shoes	Achievement Rate %	Criterion
	4	3	2	1	Access	Hope		
Existence	9	56	0	0	204	260	78.46	Good
Functions and roles	14	46	5	0	204	260	78.46	Good
Sum	23	102	5	0	408	520	78.46	Good

Financial/Investment Institutional Achievements (X24)

The existence of financial and investment institutions around the Cemara Beach Forest Tourism Area is still relatively limited. In fact, its existence is very important to promote and stimulate investment in the development of tourism that is right on target. The results of field observations show that the prospect of tourists is very promising, it is only a matter of time and willingness of investors. 66.15% of respondents considered the existence of Financial and Investment Institutions to be "good". See Table 19 below for details.

Table 19. Level of Financial/Investment Institutional Achievement (X24)

Dimensions of financial/investment klb indicator	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
Existence	0	49	11	5	174	260	66,92	Good
Functions and roles	1	40	22	2	170	260	65,38	Good
sum	1	89	33	7	344	520	6615	Good

Government Policy Achievements (X25)

The existence of Government Policies in tourism development is undoubtedly very important. The existence of government policies functions to guide and regulate parties involved in tourism activities. However, according to the respondents' assessment, the existence and function of Government Policy are still lacking. The Government Policy Achievement Rate of 51.53% met the criteria of sufficiency. The results of the Government Policy Achievement Level are detailed in Table 20 below.

Table 20. Level of Government Policy Achievement

Dimensions of financial/investment klb indicator	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
Existence	0	17	35	13	134	260	51,54	enough
Functions and roles	0	20	28	17	133	260	51,15	Enough
sum	0	37	63	30	267	520	51,35	enough

Institutional Achievements of Tourism Support (X2)

Tourism supporting institutions are limited to: Customary and Cultural Institutions, Environmental Institutions. Finance/investment living. Transportation and Government Policy. The overall achievement rate reached 65.65%. good criteria. Among the five dimensions, Government Policy is the lowest, followed by customary/cultural institutions. The details are shown in Table 21 below.

Table 21. Level of Institutional Achievement of Tourism Supporters (X2)

Indicator dimensions	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
Customary/cultural clubs	1	89	33	7	344	260	66,15	Good
Klb. Living Circle	9	80	32	9	349	260	67,12	Good
Transportation Department	23	102	5	0	408	260	78,46	good
Investment Finance Department	1	89	33	7	344	260	66,15	Good

Government policies	0	37	63	30	267	260	51,35	Enough
sum	34	397	166	53	1712	2600	65,85	Good

Community Participation (X3)

Achievement of Participation in Planning (X31)

Cidaun Regency was initially established by members of non-governmental organizations, especially KTH (Forest Farmers Group), which was fostered together by local forestry extension workers. The spruce plantation was planned from the beginning to protect nature and the environment during the planting process. This attempt is still a relatively rare model. The level of community involvement in planning reached a good criterion of 68.46%.

Table 22. Achievement Level of Participation in Planning (X31)

Indicator dimensions	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
It is the active involvement of the community in planning the development of tourism activities	0	49	15	1	178	260	68,49	Good
sum	0	49	15	1	178	260	68,49	Good

Participation in Control (X32)

Community participation is the active involvement of the community in the implementation of activities related to tourism development. The existence of Cemara Beach Forest Tourism in Cidaun District, which is the target of beach tourism, was initially managed by KTH. However, after being converted into a tourism destination in the development process, there were problems in its management, and in essence, many parties wanted to manage it. In the future, clarity is needed not only in regulations and management, but also in systems and linkages with associations (organizations). The level of community involvement in the Utilization and Control of Cemara Beach Forest reached a 'good' score of 66.92%.

Table 23.Participation in Control (X32)

Indicator dimensions	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
Control and utilization	0	49	11	5	174	260	66,92	Good
sum	0	49	11	5	174	260	66,92	Good

Participation Achievements in Surveillance (X33)

Community participation is the active participation of the community in the supervision of tourism development activities. The existence of the Cemara Beach Forest Tourism site in Cidaun District is currently in the spotlight, especially by farmers who are members of KTH. Supervision is carried out continuously and tasks are divided. The level of community participation in the utilization and control of coastal cypress forests reached a 'good' benchmark of 78.46%.

Table 24. Participation Achievements in Surveillance (X33)

Dimension of community participation indicator	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		

Implementation of regular periodic supervision	0	56	0	0	204	260	78,46	Good
sum	0	56	0	0	204	260	78,46	Good

Achievement of Participation in Environmental Care (X34)

Community involvement in responding to environmental sustainability related to tourism development activities is very important. This is an icon for sale in the Cemara Beach Forest Tourism Development Area in Cidaun District. The model focuses on coastal protection efforts. The level of community involvement in Environmental Care is 61.92%. good criteria.

Table 25. Achievement of Participation in Environmental Care (X34)

Dimension of community participation indicator	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
Caring for environmental sustainability	0	40	16	9	161	260	61,92	Good
Sum	0	40	16	9	161	260	61,92	Good

Recapitulation of Community Participation Achievements (X)

The following is a summary of achievements: Community participation consists of four aspects, namely participation in planning, utilization and control, supervision, and caring for the environment. The level of community participation in caring for the environment reached 65.67% of the "Good" criterion. Summary results can be seen in Table 26 below.

Table 26. Recapitulation of Community Participation Achievements (X)

Dimension of community participation indicator	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
Planning	0	49	15	1	178	260	68,46	Good
Control	0	49	11	5	174	260	66,92	Good
Supervision	1	40	22	2	170	260	78,46	Good
Caring for environmental sustainability	0	40	16	9	161	260	61,92	Good
sum	1	178	64	17	683	1040	65,67	Good

Cemara Beach Forest Tourism Development (Y)

The parameter calculation is based on frequency methods and scoring techniques. Statistics were used to determine the criteria based on the number of respondents (65 people), with the maximum score (2600), minimum score (650), range (1950), number of classes (4), and length of classes (488). Thus, the achievement level can be calculated.

650	until	1138	or	25,00%	until	43,75%	R
1139	until	1626	or	43,76%	until	62,55%	C
1627	until	215	or	62,56%	until	81,33%	B
2116	until	2600	or	81,34%	until	81,44%	SB

Development Achievements: Natural and Environmental Potential (Y1)

In this study, the development of the natural potential and tourism ecology of the Cemara Forest is examined to the extent that the attraction of the natural potential of the tourism target changes physically. The more interesting the structural changes that occur in the tourism potential, the better the coordination of the development process. What happened at the location was the

condition of the beach and the initial color that was not attractive to see and visit at first, but then after trying to start planting spruce trees, it was replaced by shade, it turned into a green beach, and I was able to spend my time comfortably. visit. In addition, the growth of cypress forests along the coast also acts as a barrier to abrasion and coastal erosion. In addition, it is resistant to strong coastal winds. The efficiency level of natural and ecological potential development is 73.65%. Good criteria See Table 27 below for details.

Tabel 27. Tingkat Capaian Pengembangan : Potensi Alam dan Lingkungan (Y1)

Dimensi indicator	Frekuensi petani pada skor				skor	skor	Tingkat capaian %	kriteria
	4	3	2	1	Capaian	Harapan		
Perubahan fisik daya Tarik potensi alam yang menjadi objek wisata	0	49	15	1	178	260	68,46	Baik
Perubahan daya Tarik lingkungan	34	8	22	1	205	260	78,85	baik
Jumlah	34	57	37	2	383	520	73,65	Baik

Development Achievement : Ecosystem (Y2)

Looking at the development of Cemara Beach Forest Tourism from an ecological perspective, it is necessary to pay attention to whether there is a change in the interaction between visitors and nature. The better the interaction between visitors and the environment, the better the development process. According to the resource person, during the Cemara Beach Forest Tourism development initiative, there was interaction between the spruce forest along the coast and visitors. Visitors seem to be happy with the existence of a relatively rare model of spruce forest along the coast.

In addition, there is an interaction between visitors and the community that shows good things. The surrounding community, especially farmers who also manage tourist attractions, are ready to serve all tourist needs. However, the frequency with which visitors visit this tourist attraction is still only on certain days: holidays, Sundays, or holidays/holidays. Dimension of Food Security Achievement: Safety Score 78.08% Good criteria. Details of the results of the development of coastal Cemara Beach Forest Tourism from an ecological perspective are shown in Table 28 below.

Table 28. Development Achievement : Ecosystem (Y2)

Indicator dimensions	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
Interaction of visitors and nature	16	22	22	5	179	260	68,85	Good
End-of-life interaction with the community	36	25	4	0	227	260	87,31	good
Sum	52	47	26	5	406	520	78,08	Good

Development Achievements: Socio-Cultural (Y3)

Increased insight and awareness of the importance of environmental sustainability for local communities and tourism organizers. Efforts to develop the Cefir Forest model continue to be carried out. In addition, respondents reported that in the process of developing the Cemara Beach Forest Tourism, local institutions have grown, especially those that regulate the management of these tourist attractions. In addition, there are economic and social organizations that support tourism activities. The achievement rate of Cemara Beach Forest Tourism in the socio-cultural aspect reached 57.94% of the "adequate" standard. See Table 29 below for details.

Table 29. Development Achievements: Socio-Cultural (Y3)

Indicator dimensions	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
The growth and development of local cultural arts	0	49	15	1	178	260	68,46	Good
The increasing and role of local culture	24	8	22	1	205	260	78,85	Good
Further adding insight into the importance of environmental sustainability	16	22	22	5	179	260	68,85	good
Sum	50	79	59	7	562	520	72,65	Good

Development Achievement : Economy (Y4)

Developing Cemara Beach Forest Tourism from an economic perspective is to see if MSME businesses grow, jobs are created and the quality and comfort of accommodation increases. MSME businesses around tourist attractions have experienced strong growth and development. These companies include: Cafes and stalls, all-terrain vehicle rentals. karaoke service. Especially with the emergence of various business sectors, jobs will be created, especially for the surrounding workforce. From an economic perspective, the success rate of Cemara Beach Forest Tourism Development reached 86.56%. excellent criteria. More detailed information about the economic growth of Cemara coastal forest tourism can be found in Table 30 below.

Table 30. Development Achievement : Economy (Y4)

	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
The development of MSME businesses	36	25	4	0	227	260	87,31	Excellent
Job creation	37	24	4	0	228	260	87,69	Excellent
Quality of lodging comfort	34	23	8	0	221	260	84,67	Excellent
Sum	104	72	16	0	676	520	86,56	Excellent

Recapitulation of Cemara Beach Forest Tourism Development Achievements (Y)

The satisfaction of the four dimensions including the dimensions/indicators of natural and ecological potential, ecosystem, socio-cultural and economic is 77.93%, which is a good standard. From these four dimensions, it can be seen that the economic dimension has the highest level of achievement. The complete results of the development of Cemara Beach Forest tourism can be seen in Table 31 below.

Table 31. Recap of the Achievements of Cemara Beach Forest Tourism Development (Y)

Indicator dimensions	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
Natural and environmental potential	34	57	37	2	383	520	73,65	Good
Ecosystem	52	47	26	5	406	520	78,08	Good

Social culture	50	79	59	7	562	780	72,05	good
economics	107	72	16	0	676	781	86,56	Excellent
Sum	243	255	138	14	2027	2601	77,93	Good

Achievement of Total Income of Farmer Households (I)

Gross income of agricultural households (RTP) is the amount of income from agricultural activities (rice) and non-agricultural income. The non-farm income generated by RTP is: A real estate rental service company that owns everything related to tourism.

The average income from rice cultivation twice a year on 0.25 ha of land is Rp7,243,643 or 40.30% of household gross income, while non-agricultural income is average Rp10,730,769 or 59%. Seventy percent of household gross income. Even if the income from farming is relatively small, farmers will consider it, considering that it is a business that produces products that meet the needs of daily life. You can see that non-farm income has increased by more than 50%. Therefore, it is important to have a tourism sector around farmers to increase their income. The RTP revenue achievement rate is 73.65% and the 'good' criteria as shown in Table 32 below.

Table 32. Total Revenue Achievement RTP (I)

Dimensions of the income indicator	Farmer frequency on score				shoes	shoes	Achievement Rate %	criterion
	4	3	2	1	Access	Hope		
Agriculture	0	49	15	1	178	260	68,46	Good
Non-agricultural	34	8	22	1	205	260	78,85	good
Sum	34	57	37	2	383	520	73,65	Good

Hypothesis Testing

Uji Hipotesis 1

Based on the analysis using SPSS for Windows software, the relationship between the two variables is as follows:

Table 33. Correlation Between Free Variables X1 and X2

		Attraction and environment X1	X2 tourism support institutions
Attraction and environment X1	Pearson correlation	1	,891”
	Sig (2-tailed)		,000
	N	65	65
X2 tourism support institutions	Pearson correlation	,891”	1
	Sig (2-tailed)	.000	
	N	00	00

Get rcalculate = 0.891 greater than rtable = 0.242, reject H0 or accept H1. Conclusion: Institutions that support tourism do not have a great positive relationship with attractions and the environment. It can be interpreted that the more developed the tourism supporting institutions, the better the tourist attraction and the environment.

Uji Hipotesis 2

Based on the analysis using the SPSS for Windows software program, the relationship between the two variables is:

Table 34. Correlation Between Free Variables X2 and X3

		X2 tourism support institutions	Community participation X3
X2 tourism support institutions	Pearson correlation	.000	1
	Sig (2-tailed)		,000
	N	65	65
Community participation X3	Pearson correlation	1	.869
	Sig (2-tailed)		.000
	N	65	65

Obtained rcalculate = 0.869 which is greater than r table = 0.242, then reject H0 or accept H1; Conclusion: Tourism Supporting Institutions have a real positive correlation with Community Participation. It can be interpreted that the better the Tourism Supporting Institution, the better the Community Participation will also be.

Uji Hipotesis 3

Based on the analysis using the SPSS for Windows software program, the relationship between the two variables is:

Table 35. Correlation Between Free Variables X1 and X3

		Attraction and environment X1	X3 tourism support institutions
Attraction and environment X1	Pearson correlation	1	952
	Sig (2-tailed)		,000
	N	65	65
X3 tourism support institutions	Pearson correlation	952	1
	Sig (2-tailed)	.000	
	N	65	65

Get rcal=0.952 greater than rtable=0.242 and reject H0 or accept H1. Conclusion: Tourism and environmental attractiveness are clearly positively related to community participation. It can be interpreted that the better the resources and tourist environment, the better the relationship with the local community.

Uji Hipotesis 4

1. Simultaneous Test (Simultaneous)

Based on our analysis using the SPSS software program version 20 for Windows:

Table 36. Simultaneous Effects of Independent Variables

Model		Sum of squares	df	Mean square	f	Mr
1	Regression	2481.678	3	827.226	458.29(	.0000
	Residual	110.107	61	1805		
	total	2591.785	64			

If Fcal = 458.290 is greater than Ftable = 2.72 then Ho is rejected or H1 is accepted. This means that the path coefficient actually shows the influence according to the hypothesis. In other words, the participation of tourist attractions and the environment, tourism supporting institutions and the community will have a great positive impact on the development of Cemara Beach Forest tourism.

The degree of diversity that occurs in farmers' food security is determined by the three variables of tourist attraction and environment, tourism support institutions, and community participation or by 95.60% which is indicated by the magnitude of the determination coefficient R2 = 0.958. However, the remaining 4.80% was influenced by other variables that were not included in the model.

Partially Test

Based on the results of the analysis using a computer program, Table 38 is obtained below.

Table 37. Partial Effect of Variables X1, X2 and X3 on Y

	model	**Unstandardized coefficients**		**Standardized coefficients**	**t**	**Mr**
		B	**Std error**	**beta**		
1	**(Constant)**	**.2.726**	**1.223**		**.2.228**	**.030**
	Attraction and environment X1	**377**	**113**	**,485**	**5,126**	**,000**
	X2 tourism support institutions	**,270**	**,657**	**,280**	**4,762**	**,007**
	Community participation X3	**,610**	**,219**	**,243**	**2,788**	**,007**

It can be seen that all variables: Tourism Attraction and Environment (X1), Tourism Supporting Institutions (X2) and Community Participation (X3) in the Development of Cemara Beach Forest Tourism (Y) have a significant (significant) effect, because they are in accordance with . the tcal value is 5.126; 4762; 2.788 is greater than the t-table value = 1.96 or the .sign value of each variable is less than the error rate α = 5% (0.05). The number for each path coefficient is ρzx1 = 0.485; ρzx2 = 0.280; ρzy = 0.243 squared is the direct influence of each variable X1, X2, and X3. In this case, direct influence was obtained: Variables of tourist attraction and environment (X1) = (0.485)2 x 100% = 23.56% Institutional variables supporting tourism (X2) = (0.280)2 x 100% = 7.82% Variables of community involvement (X3) = (0.243)2 x 100% = 5.91%. Furthermore, the results of the calculation of the direct and indirect influence of each variable X1, X2 and X3 can be obtained presented in the following table. The influence of the three independent variables: X1, X2 and X3 on Y is direct and indirect. The largest contribution to the development of Cemara Beach Forest Tourism (Y) is the total influence of the X1 variable (Tourism and Environment Attraction Data) which is 46.9% while the total influence of the variables X1, X2 and X3 is 95.8%. This number corresponds to the number of determination coefficient (R2) = 0.958, indicating that the structural equation model is obtained very well.

Table 39. Direct and Indirect Influences of Variables X1, X2, and X3 on Y

variable	immediately	indirect		total
		X1	X2	
X1	23,56%	X1 through x2	12,09%	35,3 %
		X1 through x3	11,23%	11,2%
		Influence x1		46,9%
X2	7,82%	X2 through x1	12,09%	19,9%
		X1 through x3	5,91%	5,9%
		Influence x2		25,8%
X3	5,91%	X1 through x2	11,23%	17,1%
		X1 through x3	5,91	5,9%
		X3 Influence		23,1%
Influence x1,x2 and x3				95,8%
Influence of other variables				4,2%
total				100,00

Uji Hipotesis 5

Based on the results of the analysis presented in Table 40, it was obtained that t count = 9.419 and compared with ttable = tα/2 (db = 63); for α = 5%. ttable = 1,980. It looks like > table. Or it can be seen from the value of sig. = 0.000 which is smaller than α = 0.05, then reject H0.or accept H1, meaning that the Development of Cemara Beach Forest Tourism has a real effect on the increase in total RTP income.

Table 40. Results of Testing Analysis of RTP Income Increase Before and After Participating in the Development of Cemara Beach Forest Tourism

	Paired differences							
				95 % confidence interval of the difference				
	mean	Std seviation	Std error mean	lower	upper	t	df	Sig (2-tailed)
Income after-earnings before	4.800.0000	4.108.000	509.619	3.781.919	5.818.081	9,419	64	,000

CONCLUSIONS

Conclusion

Based on the results of field data analysis and hypothesis testing, as well as the description of the discussion, the following research conclusions can be drawn:

1. The attraction and tourism environment of Cemara coastal forest consisting of dimensions: Attractions, Amenities, Accessibility, and Aucillary services obtained an achievement rate of 72.90% of good criteria. Supporting Institutions for Tourism obtained an achievement level of 65.85% good criteria. Furthermore, community participation showed a good situation with an achievement rate of 61.92% of good criteria. The development of Cemara Beach Forest Tourism obtained an achievement rate of 77.93% of good criteria.
2. Tourism Attraction and Environment has a positive correlation r= 0.89 indicating a very close relationship with Tourism Supporting Institutions, which can be interpreted as the better the Supporting Institutions with the better Tourism Attractions and the Environment
3. Tourism Attraction and Environment had a positive correlation of r = 0.95 with Community Participation, showing an indication of a very close relationship. It can be interpreted that community participation is increasing with the better Tourism Attraction and Environment,
4. Supporting Institutions had a positive correlation of r = 0.89 with Community Participation which indicated a close relationship. It can be interpreted that the better the Supporting Institutions, the better the community participation.
5. 5. Tourism Attraction and Environment, Supporting Institutions and Community Participation have a positive effect on the Development of Cemara coastal forest tourism. The magnitude of the influence of each is: tourist attraction 46.85%; Supporting Institutions 25.82% and Community

Participation 23.58%. The development of Cemara Beach Forest Tourism has an effect on the increase in Farmer Household Income (RTP) by an average of 67.16%.

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