The Perceived Attractiveness of GIAHS BATDAM and Its Cultural Landscape

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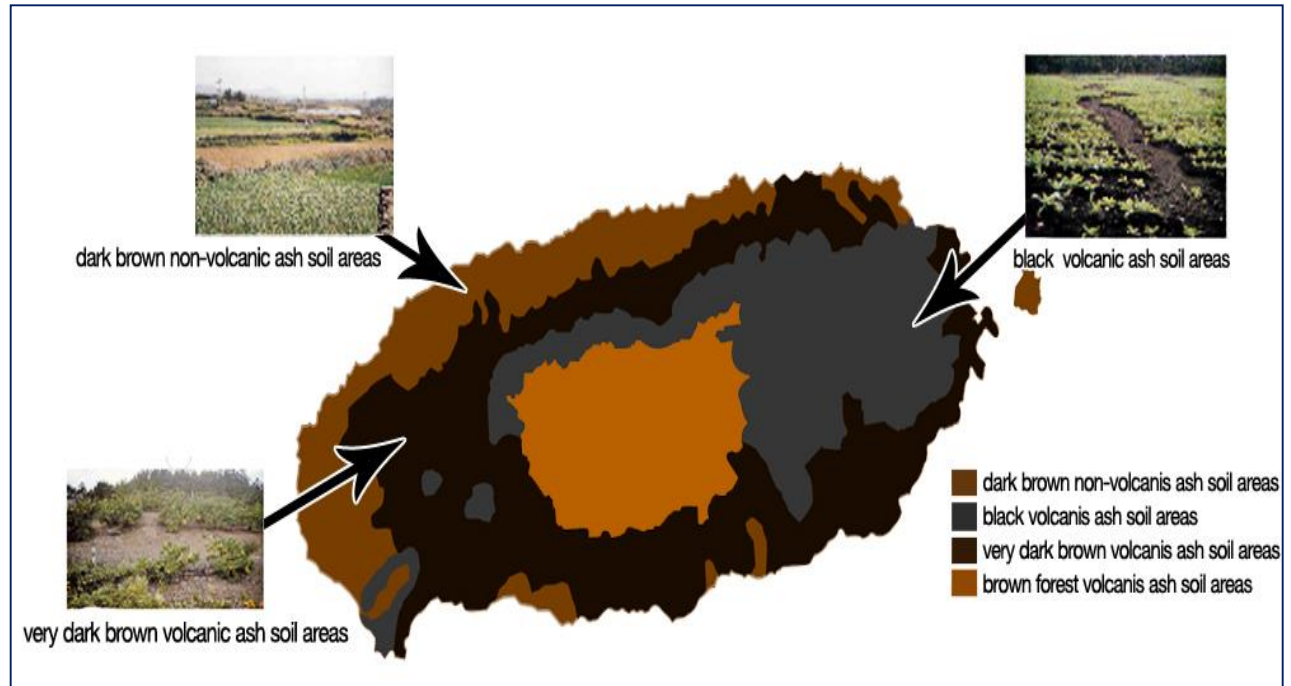
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GIAHS BATDAM
Agricultural System

Feature & Function

Feature & Function

Distribution of GIAHS BATDAM *Source from FAO GIAHS Application, 2013*

dark brown non-volcanic ash soil areas

black volcanic ash soil areas

very dark brown volcanic ash soil areas

- dark brown non-volcanis ash soil areas
- black volcanis ash soil areas
- very dark brown volcanis ash soil areas
- brown forest volcanis ash soil areas

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Feature & Function

- **Estimated length**: over 22,108km
- **Annual precipitation**
  : 1500 -1900mm/yr vs. 1277 Korea vs. 807 world
- **Rice farming impossible**: high permeable soil

Volcanic ash soil 77% of the island/ 60% of arable land

Average depth of arable land 18.3㎝(7㎝-35㎝), up to 40% of soil is gravels

Volcanic ash soil

- **highly acidic/lacks phosphoric acid**
- **poor growth of crops**
- **negative impact on the quality and quantity of fruits**
- **frequent erosion**
- **topsoil is easily washed away when it rains**

Days of wind 10m/sec, 117day/year, especially stronger wind spring - fall

Jeju is located in the path of typhoons/summer typhoon **wind speed :** 50m/sec

Feature & Function

Crops in GIAHS BATDAM *Source from FAO GIAHS Application, 2013*

Crop	Yield(2011)	
Food crops	66,632 M/T	• potato 48900, bean 7442, barley 4802, sweet potato 1887 • Bugwheat, millet, legume, upland rice, mugwort, etc
Vegetables	695,809 M/T	• white radish 307109, cabbage 112087, carrot 61104, • onion 62333, garlic 45631
Cash crop	4,810 M/T	• sesame 448, green tea 124, rape flower 140, peanut 258, • medicinal plants 2532
Flower	29,496,000 flowers	• lily 17036, chrysanthemums 3578, gerbera 1670
Citrus	588,000 M/T	

Types of GIAHS BATDAM

Woidam: Single layer

Jeopdam: double layer

Jatdam:

People walk on the fence called *jatgil* (path),
Help neighbors without road to the field

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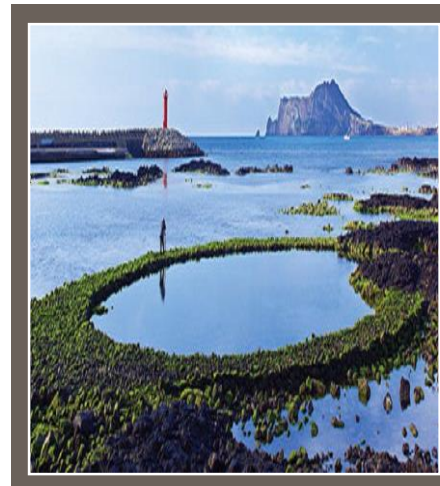# Types of GIAHS BATDAM
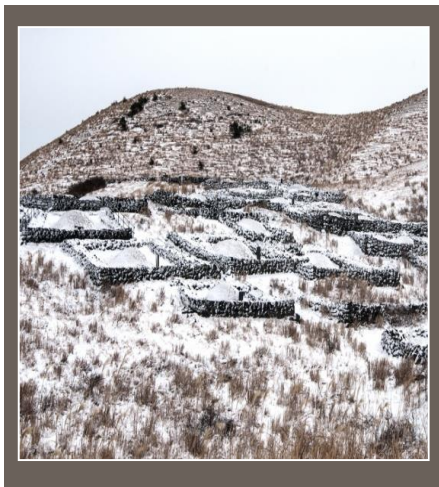

Japgutdam

Uldam

Fence around a house

Wondam

net for fish gathering

Types of GIAHS BATDAM

Sandam

graveyard fence

Hwanhaejangseong

fortress fence

Bulteok

fireplace to get warm

Types of GIAHS BATDAM
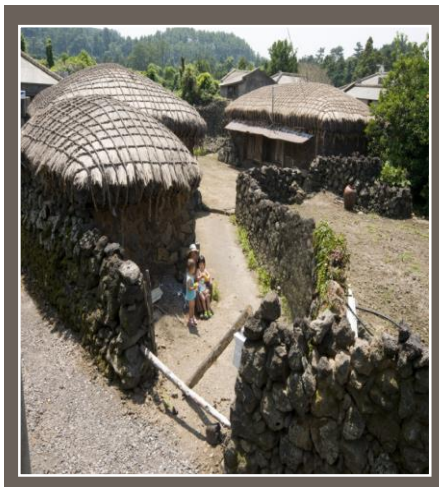
Olletdam

fence from dwelling to a street
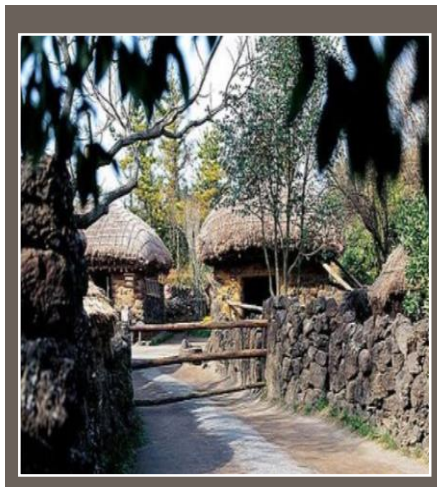
Jeongnang

stone gate fence
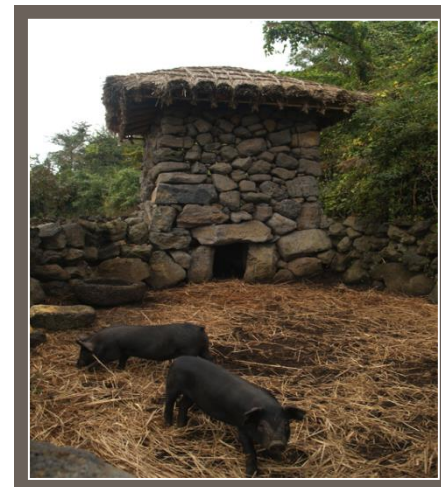
Tongshi

toilet fence

Feature & Function

Source from GIAHS BATDAM application, 2013
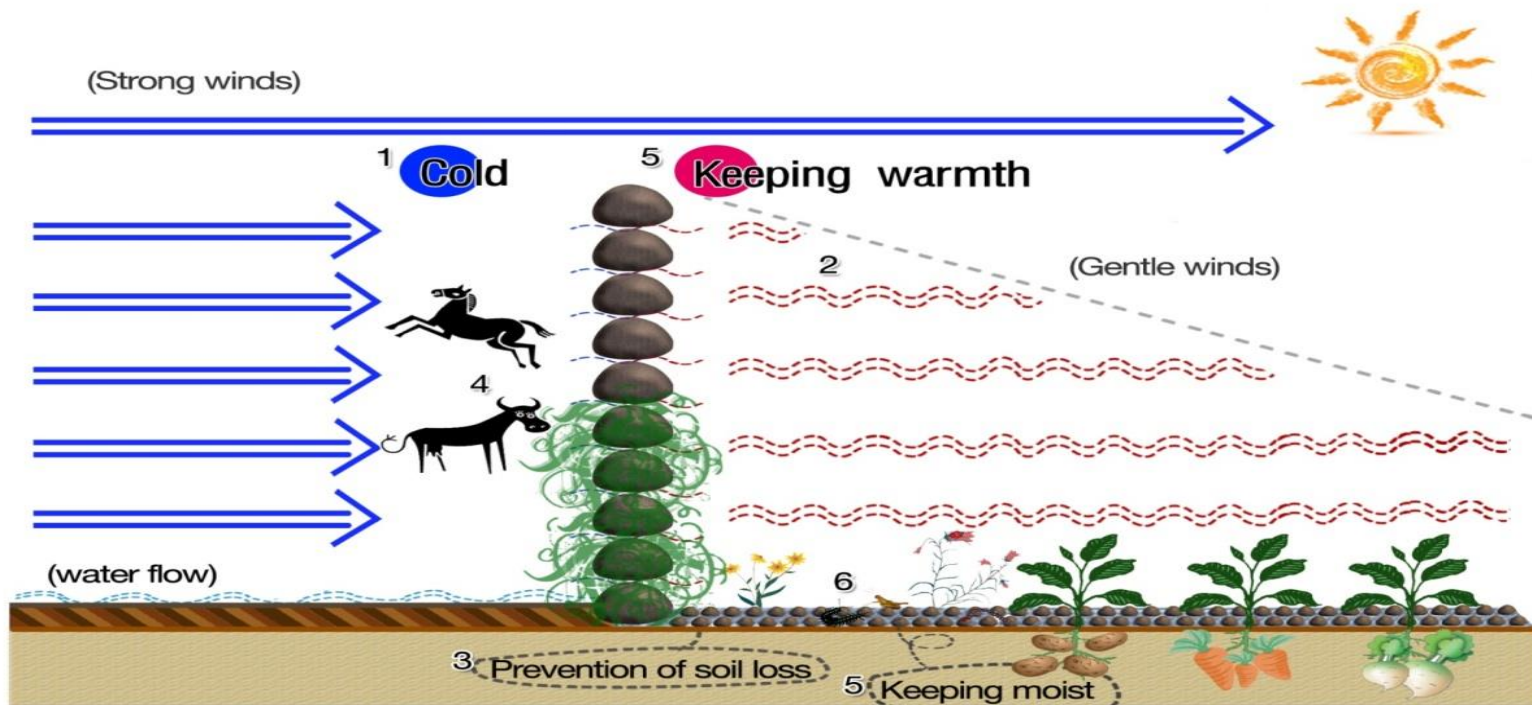
1. functions as a windbreak by breaking strong winds
2. helps crops to grow with gentle winds
3. prevents the loss of soil and helps conservation
4. protects crops by stopping horses and cows from entering
5. keeps soil warm and moist
6. species diversity

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Landscape of GIAHS BATDAM

Landscape of GIAHS BATDAM *Source from GIAHS BATDAM application, 2013*

Spring

Summer

Fall

Winter

Socio-cultural elements of GIAHS BATDAM

Home of **18,000 gods!**

- **Island of stone and wind holds unique folklore**

  ✓ **Buildings used to hold *jipjul*(lower roof) , *pungchae* (tied roof), *uldam/olletdam* that subdue winds.**

  ✓ **Various structures, tools for daily lives and entertain culture with stone as elements of Jeju's agricultural and**

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Socio-cultural elements of GIAHS BATDAM

- **Livestock farming taking advantage of a vast expanse of grassland in the mid-mountain area**

- **UNESCO Jeju Haenyeo(women divers) Intangible Cultural Heritage: December 2016**

- **Unique culture of burial and *beolcho* or tidying up the grave site**

- ***Batdam* made its way to the mid-mountain areas from the coastal areas.**

Destination Attraction of GIAHS BATDAM

Literature background

Destination Attractiveness

- **Combination of "the relative importance of individual benefits and the perceived ability of the destination to deliver individual benefits"**

  (Hu and Ritchie 1993, p. 25)

- **What is tourist destination?**

  Jeju island   **or**   **GIAHS BATDAM**

- **GIAHS BATDAM is located throughout the entire island.**
- **GIAHS BATDAM is the core element of Jeju landscape.**

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Literature background

Destination Attractiveness Dimension (Thach & Axinn, 1994)

Core Attributes

Heritage resources(Stevens 1992) **Of history, music, paintings, folklore, special events**(McCain & Ray 2003)

Augmented Attributes

functional/physical attributes, influencing visitors' evaluation of the core attributes, including accommodations, food, transportation, interpreting/guiding services, environmental management

GIAHS BATDAM Destination Attractiveness

Significance of GIAHS BATDAM in the eye of selection criteria

① **Food and Livelihood Security**

② **Agro-biodiversity**

③ **Local and Traditional knowledge/skills**

④ **Culture, Value System & Social Organization**

⑤ **Landscape**

GIAHS BATDAM Destination Attractiveness

- Attractiveness of a cultural destination includes learning, awareness and understanding of other cultures, cultural exchange, and stronger cultural identity (Clements, Schultz, and Lime 1993; Driver, Brown, and Peterson 1991) for visitors with cultural background different from that of the hosts.

- It is necessary to see the followings

Is GIAHS BATDAM a destination?	What elements pull visitors to GIAHS BATDAM?
Visitors perception on GIAHS BATDAM	Ideal enhancement of GIAHS BATDAM promotion

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Test Result

Summary·Target· Method

Summary

✓ Survey was built to see
    ① Perceived awareness of Destination Jeju and Jeju Batdam
    ② Satisfaction level(willing to recommend, revisit and overall satisfaction)
    ③Target: 265 residents and domestic visitors over 15 years old

Method

✓ Period: 2 weeks from 07/27/2018 at The World Natural Heritage Center of Jeju with structured and self fill in type survey
✓ Analyzed total of 265(distributed 270, excluded 5 incomplete ones)
✓ Frequency analysis, T-test, Factor analysis, Regression analysis were practices with SPSS Ver. 19(IBM SPSS Statistics)

Demographic Formation

Table1. Demographic Characteristics of Respondents

characteristic		n(%)	characteristic		n(%)
Gender	Male	109(41.1)		Student	24(9.1)
	Female	156(58.9)		Office Worker	46(17.4)
Age	15-20	9(3.4)		Engineer	17(6.4)
	21-30	33(12.5)		Agriculture and fisheries	9(3.4)
	31-40	35(13.2)			
	41-50	62(23.4)		Independent business	37(14.0)
	51-60	80(30.2)	Job	Public officer	19(7.2)
	Over 61	46(17.3)			
Residence	Visitor	114(43.0)		Homemaker	41(15.5)
	Jeju	151(57.0)		Service	38(14.3)
Education level	Middle School	15(5.7)		Profession	24(9.1)
	High School	65(24.5)		Jobless	10(3.8)
	University	145(54.7)			
	Graduate school	40(15.1)			
Total		265(100)	Total		265(100)

T-test Results between Jeju Residence and Visitor

Table2. T-test Results between Jeju Residence and Visitor on Destination Attractiveness

type		no.	mean	standard deviation	p-value
1.User-friendly and convenient roads and transportation system	Jeju Residence	114	3.37	.953	.000***
	Visitor	151	3.57	.860	
2.Reasonable prices offered in Jeju	Jeju Residence	114	2.32	.917	.001**
	Visitor	151	2.76	.964	
3.Destinations are crowded by visitors	Jeju Residence	114	3.87	.946	.000***
	Visitor	151	3.50	.815	
4.Indigenous buildings and constructions are well preserved	Jeju Residence	114	2.86	.994	.000***
	Visitor	151	3.64	.803	
5.Historical sites and folk crafts are well preserved	Jeju Residence	114	3.13	.955	.001**
	Visitor	151	3.62	.764	
6.Controled development is practiced to preserve natural landscape value	Jeju Residence	114	3.10	1.030	.019*
	Visitor	151	3.50	.855	
7.Good guide facilities and system are provided in Jeju destinations	Jeju Residence	114	3.42	.986	.004**
	Visitor	151	3.74	.820	
8.Easy to shop Jeju souvenir and local products	Jeju Residence	114	3.47	.989	.031*
	Visitor	151	3.72	.865	

*p<.05, **p<.01, ***p<.001

T-test Results between Jeju Resident and Visitor

Table3. T-test Results between Jeju Residence and Visitor regarding Attractiveness of Jeju

type		no.	mean	standard deviation	p-value
1. Knew Batdam is one of FAO GIAHS previously.	Jeju Residence	114	2.97	1.379	.001***
	Visitor	151	2.46	1.193	
2. Outstanding landscape is offered among farm road, farming area, Batdam and mountain.	Jeju Residence	114	4.13	.888	.000***
	Visitor	151	3.68	.687	
3. Rock piles and fence in Batdam landscape show Jeju culture.	Jeju Residence	114	4.12	.789	.009**
	Visitor	151	3.86	.809	
4. Knew Batdam's border line role previously	Jeju Residence	114	3.94	1.016	.000***
	Visitor	151	3.42	1.061	
5. Knew Batdam's prevents soil loss role previously	Jeju Residence	114	3.56	1.234	.000***
	Visitor	151	2.95	1.148	
6. Knew Batdam secures soil temperature previously	Jeju Residence	114	3.38	1.265	.000***
	Visitor	151	2.81	1.128	
7. Knew Batdam softens harsh wind previously	Jeju Residence	114	3.58	1.282	.000***
	Visitor	151	3.03	1.157	
8. Knew Batdam prevent trespasses of cows and cattle previously	Jeju Residence	114	3.67	1.224	.000***
	Visitor	151	3.07	1.144	
9. I have seen promotion items of Jeju Batdam	Jeju Residence	114	3.01	1.300	.005**
	Visitor	151	2.59	1.124	
10. I knew Jeju Batdam Festival previously	Jeju Residence	114	3.03	1.265	.000***
	Visitor	151	2.44	1.187	
11. I believe Jeju Batdam needs to be registered as UNESCO Cultural Landscape.	Jeju Residence	114	4.04	1.008	.032*
	Visitor	151	3.79	.914	
12. I hope Jeju Batdam is recognized in larger global scale.	Jeju Residence	114	4.21	.887	.135
	Visitor	151	4.05	.815	
13. I think Jeju Batdam is one of Jeju's tourism resources.	Jeju Residence	114	4.24	.886	.047*
	Visitor	151	4.03	.824	
14. Jeju Batdam shows farmers success in overcoming given rough environment.	Jeju Residence	114	4.28	.867	.009**
	Visitor	151	4.01	.774	
15. I think Jeju Batdam holds different background from stone fences in other nations.	Jeju Residence	114	4.24	.905	.032*
	Visitor	151	4.01	.783	

*p<.05, **p<.01, ***p<.001

T-test Results between Jeju Residence and Visitor

Table4. T-test Results between Jeju Residence and Visitor regarding Satisfaction on Jeju Batdam

type		no.	mean	standard deviation	p-value
Willing to recommend Jeju Batdam Landscape	Jeju Residence	114	4.00	.841	.009**
	Visitor	151	3.73	.832	
Willing to revisit Jeju Batdam Landscape	Jeju Residence	114	3.89	.856	.235
	Visitor	151	3.77	.776	
Overall satisfaction on Jeju Batdam Landscape	Jeju Residence	114	3.91	.815	.334
	Visitor	151	3.81	.812	

*p<.05, **p<.01, ***p<.001

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Reliability Analysis and Factor Analysis

Table5. Reliability and Factor Analysis on Attractiveness of Jeju Batdam and Jeju Batdam Landscape

Factor	Measurement Item	Factor Analysis			Reliability Analysis
		Factor discretion	Eigen Value	variance explanation power	Cronbach's alpha
Perceived value for Jeju Batdam	I think Jeju Batdam is one of Jeju's tourism resources.	.857	6.474	30.541	0.912
	I hope Jeju Batdam is recognized in larger global scale.	.849			
	I believe Jeju Batdam needs to be registered as UNESCO Cultural Landscape.	.845			
	Jeju Batdam shows farmers success in overcoming given rough environment.	.813			
	I think Jeju Batdam holds different background from stone fences in other nations.	.805			
	Rock piles and fence in Batdam landscape show Jeju culture.	.764			
	Outstanding landscape is offered among farm road, farming area, Batdam and mountain.	.626			
Perceived functions of Jeju Batdam	Knew Batdam prevent trespasses of cows and cattle previously	.841	3.397	53.489	0.920
	Knew Batdam softens harsh wind previously	.830			
	Knew Batdam's border line role previously	.826			
	Knew Batdam's prevents soil loss role previously	.685			
	Knew Batdam secures soil temperature previously	.673			
Perceived promotion on Jeju Batdam	I knew Jeju Batdam Festival previously	.840	1.038	72.722	0.845
	Knew Batdam is one of FAO GIAHS previously	.786			
	I have seen promotion items of Jeju Batdam	.771			
Total variance = 72.722%, KMO= .879, Bartlett chi-square test= 2956.161 (df=105, p=.000)					
Satisfaction for landscape of Jeju Batdam	Willing to recommend Jeju Batdam Landscape	.922	2.623	87.447	0.928
	Willing to revisit Jeju Batdam Landscape	.956			
	Overall satisfaction on Jeju Batdam Landscape	.927			

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Factor analysis

Table6. Influence of awareness of Jeju Batdam in for the satisfaction level of Jeju Batdam landscape

Dependent variable	Independent variable	Factor calculation		Normal coefficient		Significance probability
		B	Standard error	ß	t	
Satisfaction for landscape of Jeju Batdam	(Variable)	.004	.043		.095	.924
	Perceived value for Jeju Batdam	.700	.044	.701	16.088	.000
	Perceived functions of Jeju Batdam	.038	.044	.038	.880	.380
	Perceived promotion on Jeju Batdam	.120	.044	.120	2.748	.006
R Square = .507, Fixed R Square = .501, F=89.050***						

Conclusion

- ➢ **Negative factors** in Attractiveness of Destination Jeju:
- ➢ **Residents** show more negative awareness for **PRICE** and **CROWDING** factors which deduce the attractiveness in general.

- ➢ **Positive factors** in Attractiveness of Destination Jeju:
- ➢ **Visitors** show higher awareness for **PRESERVARANCE OF BUILDINGS, BUILDING CULTURE, HISTORICAL HERITAGES, FOLK CRAFTS, MAINTAINING LIMITED DEVELOPMENT FOR ENVIRONMENT, GOOD TOURISM INFORMATION SYSTEM, ACCESSIBLE CONVENIENT SOUVENIRS.**

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Conclusion

➢ **3 Factors on Jeju Batdam Awareness were found:**
   ① Value of Jeju Batdam(highest on JB Landscape Value)
   ② Function of Jeju Batdam
   ③ Promotion of Jeju Batdam
➢ **Jeju Batdam can be a good tourism resource if promotion of how Jeju Batdam overcame the barren farming environment with its cultural background and the harmony within Jeju's cultural landscape is delivered.**

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GIAHS BATDAM' S CULTURAL LANDSCAPE VALUE

Cultural Landscape of GIAHS BATDAM

- **_Otto Schluter(Germany)_ defined a landscape**(1908)

Original landscape	Landscape that existed before major human induced changes
Cultural landscape	Landscape that was created by human culture.

- **_Carl O. Sauer(Human geographer)_ defined as "The cultural landscape is fashioned from a natural landscape by a cultural group".**

① **Culture is the agent,**

② **the natural area is the medium,**

③ **the cultural landscape is the result"**

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Many thanks to you!

The Jeju Batdam Study Team
at
Jeju RG & E Research Institute