SUPPLEMENTARY MATERIALS

Table S1. Social value types used in this study and in the SolVES application (Sherrouse et al., 2011)

Social value type used in SolVES application	Social value description used in SolVES application	Social value type used in current study	Current study social value type corresponds to SolVES social value type
(1) Aesthetic	I value this area because I enjoy the scenery, sights, sounds, smells, etc.	(1) Aesthetic	(1) Aesthetic
(2) Biodiversity	I value this area because they provide a variety of fish, wildlife, plant life, etc.	(2) Recreational	(10) Recreational
(3) Cultural	I value this area because they are a place for me to continue and pass down the wisdom and knowledge, traditions, and way of life of my ancestors.	(3) Educational	(8) Learning
(4) Economic	I value this area because they provide timber, fisheries, minerals, and/or tourism opportunities such as outfitting and guiding.	(4) Historical and Cultural	(6) Historic; (3) Cultural
(5) Future	I value this area because they allow future generations to know and experience the forests as they are now.	(5) Spiritual and Religious	(11) Spiritual
(6) Historic	I value this area because they have places and things of natural and human history that matter to me, others, or the Nation.	(6) Ecological Conservation	(2) Biodiversity
(7) Intrinsic	I value this area in and of themselves, whether people are present or not.	(7) Human Survival	(9) Life Sustaining
(8) Learning	I value this area because we can learn about the environment through scientific observation or experimentation.		
(9) Life Sustaining	I value this area because the help produce, preserve, clean, and renew air, soil, and water.		
(10) Recreational	I value this area because they		

	provide a place for my favorite outdoor recreation activities.		
(11) Spiritual	I value this area because they are a sacred, religious, or spiritually special place to me or because I feel reverence and respect for nature there.		
(12) Therapeutic	I value this area because they make me feel better, physically and/or mentally.		

Table S2. Profile of the total sample used in this study.

Gender	%	Farming Method	%
Male	91	Conventional	29
Female	9	Organic	71
Age	**%**	**Education**	**%**
20s	3	None	6
30s	9	Elementary	29
40s	12	Junior High	24
50s	38	High School/Polytechnic	29
60s	9	Undergraduate	6
70s +	29	Graduate	6
Annual Income (TWD)	**%**	**Residency in Study Area**	**%**
< $100k	26	< 1 - 10 years	9
$101k-$200k	35	11-20 years	2

$201k-$400k	9	21-30 years	9
$401k-$600k	15	31-40 years	12
$601k-$800k	0	41-50 years	18
$801k-$1m	9	50 years +	50
$1m +	6		
Organic Training	**%**	**Experience Farming**	**%**
0 classes	44	<1-10 years	20
1-10 classes	35	11-20 years	23
11-20 classes	9	21-30 years	15
30 classes	9	31-40 years	18
40 classes	3	41-50 years	6
		50 years +	18

Table S3. Frequency of percent allocations for seven nonmaterial-intangible cultural ecosystem service values.

	How much of 100 percent would you allocate to...						
	Aesthetic	**Recreational**	**Educational**	**Historic-Cultural**	**Spiritual-Religious**	**Ecological Conservation**	**Life Sustaining**
0	4%	3%	1%	3%	4%	2%	3%
10	5%	6%	3%	5%	4%	1%	4%
20	2%	2%	4%	2%	3%	5%	3%
30	0%	1%	2%	0%	0%	3%	2%
40	0%	0%	0%	0%	0%	1%	2%
50	0%	0%	0%	<1%	0%	0%	0%
80	0%	0%	<1%	0%	0%	0%	0%
100	0%	0%	1%	0%	0%	0%	0%

Note: percent rounded to whole integer.

Table S4. Scores of percent allocations for nonmaterial-intangible cultural ecosystem service values.

	Aesthetic	Recreational	Educational	Historic-Cultural	Spiritual-Religious	Ecological Conservation	Life Sustaining
Total	244	324	730	337	281	550	534
Avg	7	10	21	10	8	16	16
Max	20	30	100	50	20	40	40
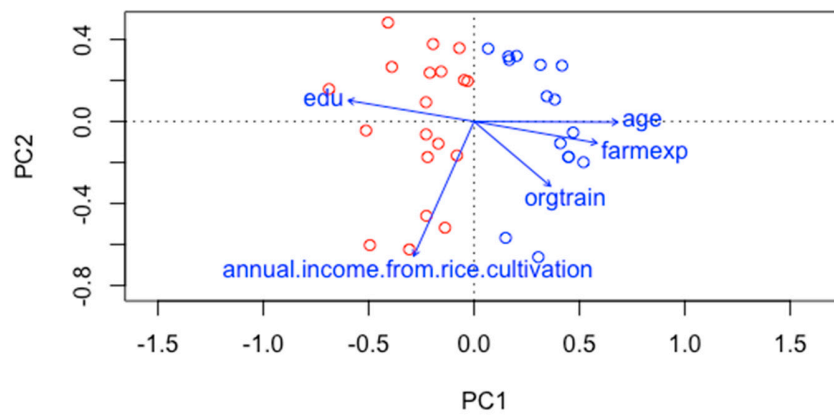
Figure S1. Biplot of individual groups defined by k-means clustering algorithm and social influence variable correlation plots. Note: PC1 is component 1 and PC2 is component 2; 'edu' is education; 'farmexp' is years farming experience; 'orgtrain' is government-sponsored organic training received; Red and blue denote individual grouping.
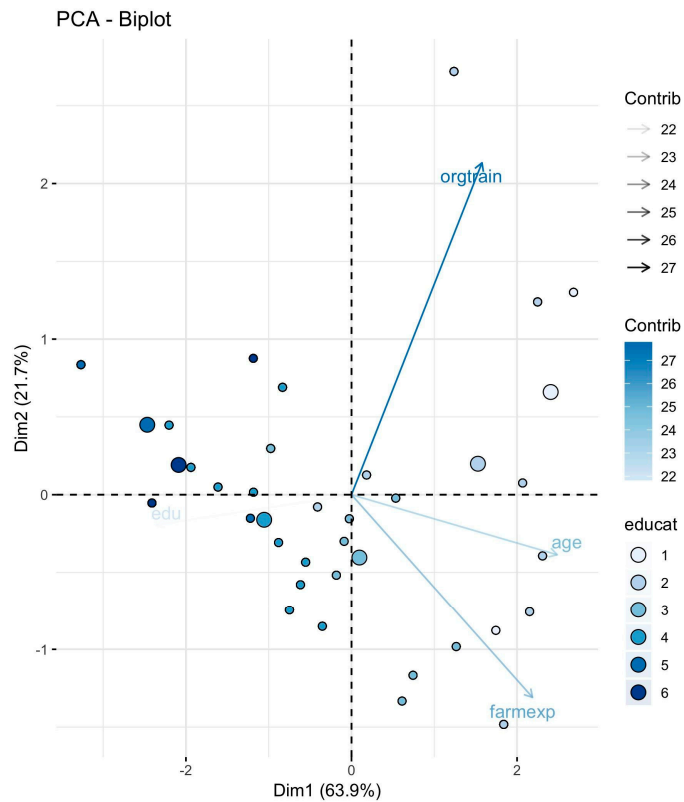
Figure S2. Biplot of principal component analysis results with variables and individuals.

Note: Variable contribution strength is depicted by text color and arrow color in green where the darker text and arrow depict higher contributions. Individual spheres are colored in green by level of education attained where 1 is none and 6 is graduate level. The education variable is located in the bottom left quadrant.

Individuals were colored by level of education, and it is visibly apparent that the sample is divided between a group who has attained education levels 1 through 3 (none, elementary, and junior high), and levels 4 through 6 (high school/polytechnic, undergraduate, and graduate).
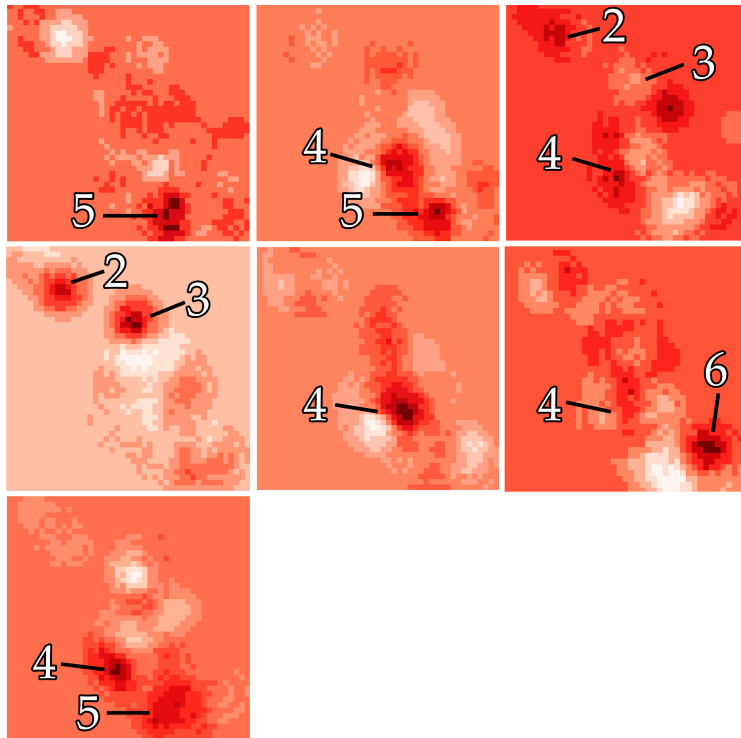
Figure S3. Nonmaterial-intangible value mapping differences between two groups.

Note: Difference maps are shown as stand-alone data not overlayed onto environmental layers. From top left to right: (a) Aesthetic; (b) Recreation; (c) Educational; (d) Historic-Cultural; (e) Spiritual-Religious; (f) Ecological Conservation; (g) Life Sustaining; Number labels refer to designated areas within the study area landscape; Darkest red refers to the greatest difference between Group Young-Educated and Group Old-Experienced value maps.

The following are mapped Areas 1 through 6. Based on respondents' named locations, places were identified in Google Maps. 'Google Maps Place ID (Mandarin Chinese)', in some instances are the colloquial "nicknames" that farmers' named rather than the business listing in the Google Maps Place ID databases. For example, in Area 3 (Table S4), farmers named a location called 'Shanjiao Japanese Farmers Association''. The name of this place, however, as a Google Maps business listing, does not include 'Japanese' in its official name. Furthermore, this listing's place type is categorized as a 'bank' by Google Maps. While the Farmer's Association does deal with financial aspects (e.g. loans, subsidies, grants), it is not a bank primarily. The building is a structure from the Japanese Occupation Era in Taiwan's history and is considered architecturally beautiful, historic, and culturally important because the majority of buildings from this period in Taiwan's history were demolished. For this reason, it is referred to by local farmers as the 'Japanese Farmers Association'.

Table S5. Area 1 Google Maps places corresponding to respondent mapped and named locations.
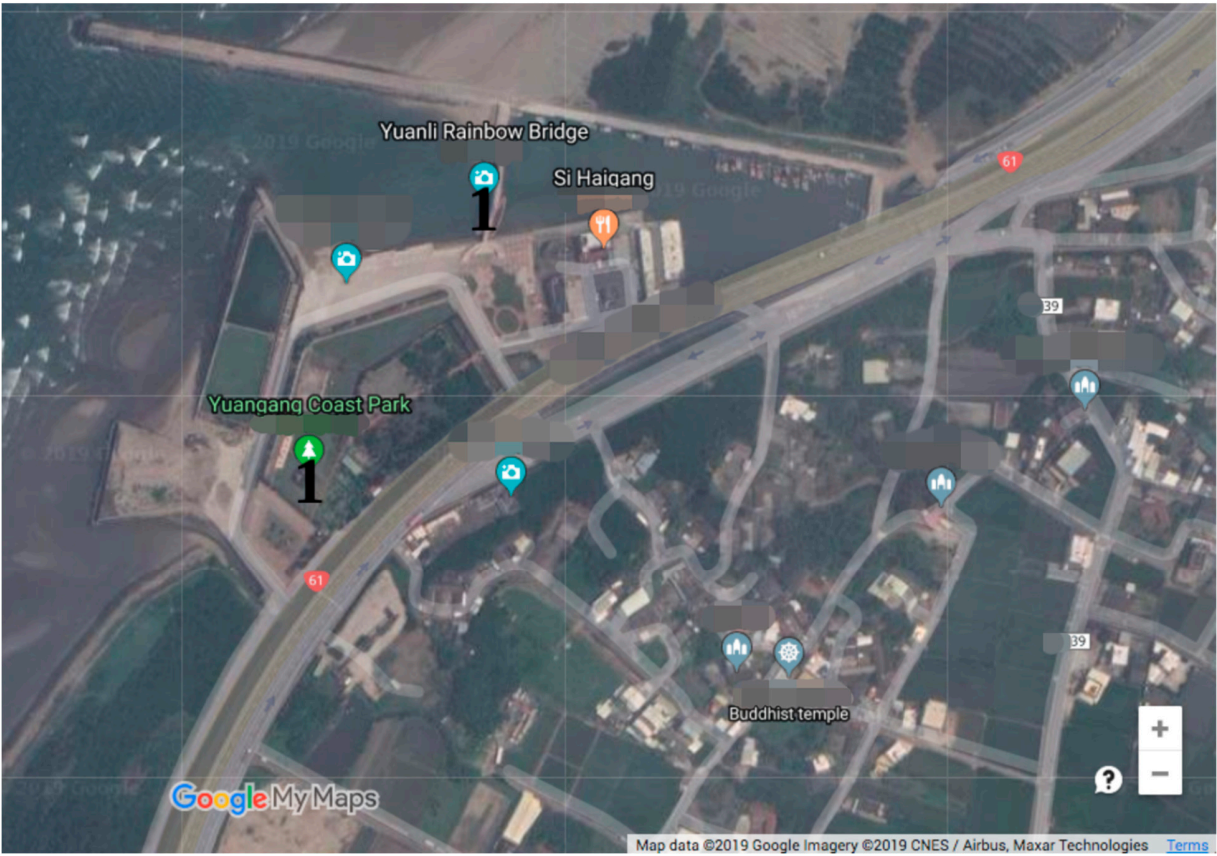
Google Maps Place ID or translation in brackets	Google Maps Place Type	Google Maps Rating (max is 5 stars)
Yuanli Rainbow Bridge	Tourist attraction	3.8 stars (763 reviews)
Yuangang Coast Park	Park	4.0 stars (160 reviews)

Map data attribution in accordance with Google terms of service: Google 2019, CNES Airbus, Maxar Technologies imagery.

Note: '1' indicates Area 1 places corresponding to respondent mapped and named locations; Places are listed from appearance on map from top to bottom, left to right.

Table S6. Area 2 Google Maps places corresponding to respondent mapped and named locations.

Google Maps Place ID or translation in brackets	Google Maps Place Type	Google Maps Rating (max is 5 stars)
Municipal Yuanli Elementary School	Elementary school	4.2 stars (39 reviews)
National Yuanli Senior High School	High school	4.3 stars (25 reviews)
Cihe Temple	Place of worship	4.3 stars (190 reviews)
Yuanli Valerian grass Weaving	Restaurant	3.4 stars (7 reviews)
Yuanli Township Farmers Association	Bank	4.2 stars (5 reviews)
[Miaoli County Community College Association]	n/a	n/a
Library of Yuanli Township	Library	4.7 stars (10 reviews)

Map data attribution in accordance with Google terms of service: Google 2019, CNES Airbus, Maxar Technologies imagery.

Note: '2' indicates Area 2 places corresponding to respondent mapped and named locations; Places are listed from appearance on map from top to bottom, left to right; This area included places unidentifiable by GoogleMaps but would be located in the vicinity of the "Yuanli Old Street".

Table S7. Area 3 Google Maps places corresponding to respondent mapped and named locations.

Google Maps Place ID or translation in brackets	Google Maps Place Type	Google Maps Rating (max is 5 stars)
[QingPu Life Memorial Hall]	Cremation Service	3.5 stars (13 reviews)
Shanjiao Park	Park	3.0 stars (20 reviews)

Shanjiao Elementary School	School	4.4 stars (188 reviews)
[Shanjiao Elementary School Japanese ponds]	Scenic spot	4.2 stars (224 reviews)
[CiHu Temple]	Place of worship	4.3 stars (13 reviews)
[Shanjiao Japanese Farmers Association]	Bank	3.6 stars (7 reviews)
Reed Cultural Museum	Heritage museum	3.9 stars (773 reviews)
[Painted Rice Field]	Tourist attraction	3.8 stars (893 reviews)
[Love Orchard]	Farm household tour	4.0 stars (152 reviews)
Shanjiao Lookout	Observation deck	4.1 stars (25 reviews)
[Lishan School]	Non-profit organization	4.6 stars (53 reviews)
[Yuanli River]	n/a	n/a

Top and Bottom Map data attribution in accordance with Google terms of service: Google 2019, CNES Airbus, Maxar Technologies imagery.

Note: '3' indicates Area 3 places corresponding to respondent mapped and named locations; Places are listed from appearance on map from top to bottom, left to right; Point 10 and 11 are not on the above Area 3 Google Maps screenshots since they fell outside of view.

Table S8. Area 4 Google Maps places corresponding to respondent mapped and named locations.

Google Maps Place ID or translation in brackets	Google Maps Place Type	Google Maps Rating (max is 5 stars)
[an open field of the land god]	Place of worship	n/a
Lantian Elementary School	Public school	4.1 stars (12 reviews)
[Shanshui Rice Tourist Workshop]	Dude Ranch	3.7 stars (31 reviews)
[Organic rice land]	Tourist attraction	4.0 stars (109 reviews)
[Rice-Duck Paddy Tourist Workshop]	Tourist attraction	3.8 stars (42 reviews)
[Wuguye Temple]	Transport interchange/Bus stop	n/a
[Zhenan Temple]	Place of worship	4.4 stars (61 reviews)
[Rice-Duck Village Living Farm]	n/a	4.0 stars (48 reviews)
[Pottery Kiln gardens]	Tourist attraction	4.0 stars (884 reviews)
[Shangguan community DIY popcorn]	Tour operator	3.2 stars (6 reviews)

| Yangzhong Wan's Single Grain of Rice | Farm | 4.0 stars (42 reviews) |

Map data attribution in accordance with Google terms of service: Google 2019, CNES Airbus, Maxar Technologies imagery.

Note: '4' indicates Area 4 places corresponding to respondent mapped and named locations; Places are listed from appearance on map from top to bottom, left to right. The left-most '4' is a stack of three '4's.

Table S9. Areas 5 and 6 Google Maps places corresponding to respondent mapped and named locations.

Google Maps Place ID or translation in brackets	Google Maps Place Type	Google Maps Rating (max is 5 stars)
Huoyan Mountain Natural Reserve	Nature preserve	4.5 stars (636 reviews)
[Huoyan Mountain Trail Trailhead]	Mountain peak	4.4 stars (209 reviews)

Map data attribution in accordance with Google terms of service: Google 2019, CNES Airbus, Maxar Technologies imagery.

Note: '5' indicates Area 5 places corresponding to respondent mapped and named locations; '6' indicates Area 6 places corresponding to respondent mapped and named locations.
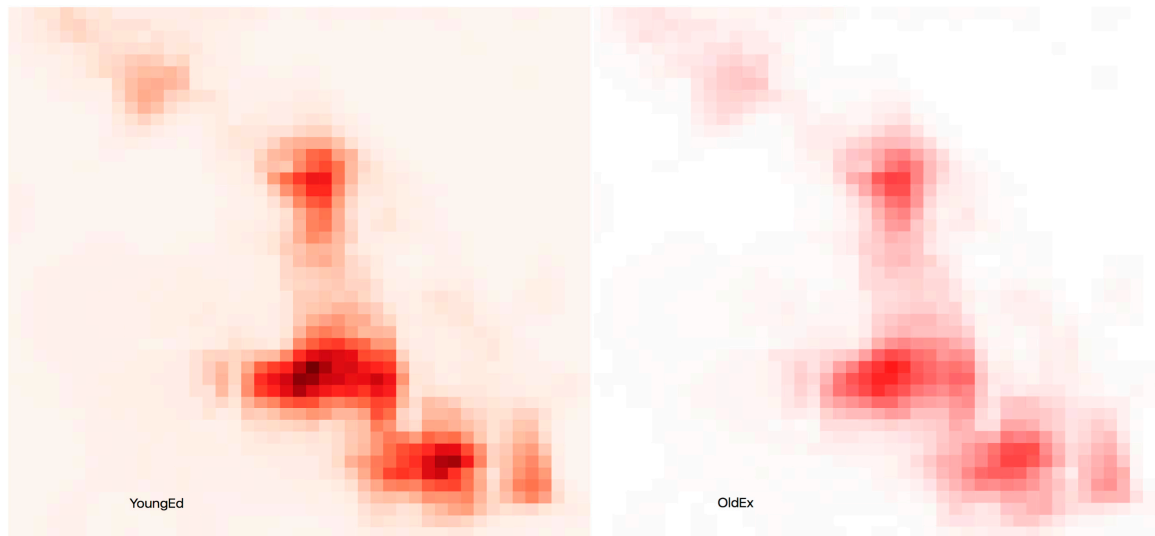
Figure S4. Total of seven nonmaterial-intangible cultural ecosystem service valuations for Young Educated group and Old Experienced group. Note: 'YoungEd' is Young Educated group; 'OldEx' is Old Experienced group.
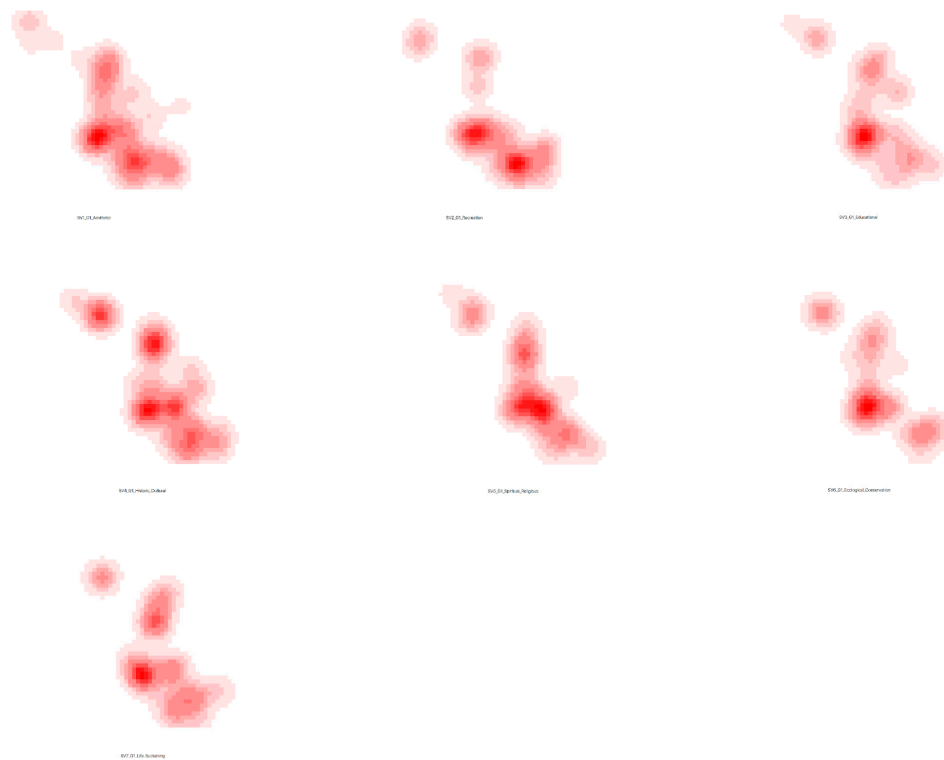

Figure S5. Young Educated group mapping results for seven nonmaterial-intangible cultural ecosystem service valuations. Note: From top left to right: (a) Aesthetic; (b) Recreation; (c) Educational; (d) Historic-Cultural; (f) Spiritual-Religious; (g) Ecological Conservation; (h) Life Sustaining. Darkest red indicates highest intensity.

Figure S6. Old Experienced group mapping results for seven nonmaterial-intangible cultural ecosystem service valuations. Note: From top left to right: (a) Aesthetic; (b) Recreation; (c) Educational; (d) Historic-Cultural; (f) Spiritual-Religious; (g) Ecological Conservation; (h) Life Sustaining. Darkest red indicates highest intensity.