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Challenges for world natural heritage protection through coordinating a variety of values

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Designation of protected areas is an extremely effective means of "protecting" the natural environment and natural resources, and registration as a world natural heritage site is an extremely effective conservation policy for protecting its outstanding universal value. This paper introduces three cases such as Ha Long Bay, in Vietnam, Galapagos Islands and Shirakami-Sanchi in Japan which are the sites of world heritage. The paper presents the different values of stakeholders towards world natural heritage. In particular, the paper discusses how the universal values of world heritage and the values of stakeholders including local communities affect the protection of world heritage. Then, based on the recognition of the different values, future issues and perspectives regarding the coordination of interests among stakeholders are discussed. In today's world, where there are different values, sometimes conflicts among stakeholders happen with each other and it is of course needed to respect and mutually understand these different values. On the other hand, the international framework, the World Heritage Convention, is a global standard with outstanding universal value, although its characteristics are diverse. For registered sites, the global "external" endorsement should require local communities at the sites to comply with new global standards. At the same time, external global standards will force new changes on the ground in registered sites. It is important to think how to overcome conflicts between different values and to create new values through interaction between external and local values.

Key words: World heritage, universal outstanding value, Ha Long Bay, Galapagos Islands, Shirakami-Sanchi, different values.

INTRODUCTION

It is generally said that regulating or restricting use of natural resources and land use under certain legal frameworks is most effective way for the purpose of protection and conservation. In this line, designation of protected areas is an extremely effective means of "protecting" the natural environment and natural resources. For example, forests and people are tightly

associated in the developing countries. The forest vegetation is highly threatened by human activities (Htun et al., 2011). Millions of people reside within or close to protected areas (PAs) and harvest forest products (Davidar et al., 2010) which changed the forest composition, structure (Bhuyan et al., 2003) and reduced the species diversity by restricting size of forest patches

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(Krishna et al., 2014) and alters the soil microbial activities (Bargali et al., 2018, 2019; Manral et al., 2020; Padalia et al., 2022) and nutrient cycling (Bargali and Singh, 1991). Continued increase in the human population together with livestock populations, the pressure on these forests in terms of intensive livestock grazing, fuel wood and timber harvesting for their energy and income generation are mounting and consequently resulting into the reduced carrying capacity of these forests (Sagar and Singh, 2004; Baboo et al., 2017). The PAs maintain and promote the population of native species, community composition, conserve the genetic diversity of all native species and permits the sustainable flow of natural goods and services to fulfill the requirements of the local peoples (Singh et al., 2014). Nevertheless, modules of PAs which have already been degraded may need rehabilitative measures to restore them to their natural state (Singh et al., 2014).

IUCN (2008) clearly defines protected area as geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values. Protected areas – national parks, wilderness areas, community conserved areas, nature reserves and so on – are a mainstay of biodiversity conservation, while also contributing to people's livelihoods, particularly at the local level. Their role in helping mitigate and adapt to climate change is also increasingly recognized (IUCN, 2008). Among protected areas, world natural heritage is one of powerful systems in terms of strict and legal protection of natural resource. The World Heritage Convention is one of the most successful international instruments to recognize the most exceptional natural places in the world, characterized by their outstanding biodiversity, ecosystems, geology or superb natural phenomena (UNESCO, 2021a). World natural heritage shall have natural features consisting of physical and biological formations or groups of such formations, which are of Outstanding Universal Value (Hereafter referred to as OUV) from the aesthetic or scientific point of view. Also the heritage are geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of OUV from the point of view of science or conservation. As stated, world natural heritage shall have OUV. The value means natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of the heritage is of the highest importance to the international community as a whole (UNESCO, 2021).

In the meantime, heritage shapes our present identity and provides insight for our future. Heritage includes a range of activities in the areas of stewardship, preservation, research, education and engagement.

Within this context these activities must exhibit sensitivity to: 1) the indigenous natural environment, 2) the impact of the interaction between human activity and natural environments, and 3) differing perspectives regarding objects, ideas, places and traditions (Massey, 2012). Value-led conflicts between administrative management and local communities at world heritage site including world cultural heritage are reported (Jiancheng et al., 2019). It is not easy to draw the line of protected area (where to protect). This is because there are a wide variety of stakeholders involved in the use of natural resources and land. In particular, in areas where the use of land and resources in protected areas are strictly regulated, such as world natural heritage sites, conflicts often arise over the use of resources and the administration of protection, which makes it a challenge to harmonize and balance the environment and development including tourism, agriculture, fishery, to name a few, and to build consensus among various stakeholders. Lack of local community involvement in the management of world heritage sites was identified, and it was pointed out that local communities' participation could indeed contribute to sustainability of world heritage sites (Lekaota, 2018).

Today, conservation is understood to encompass any action designated to maintain the cultural significance of a heritage object or place, and is a process that starts at the moment a place is attributed cultural values and singled out protection. A variety of values of the heritage are attributed, not intrinsic; mutable, not static; multiple and often incommensurable or in conflict – can challenge established conservation principles. The nature of cultural values has serious implications for the impact of conservation on the values of a place, the universality of conservation principles, and the protection of the heritage for future generations (Marta, 2013).

Heritage as an identifiable discourse garnered more public attention in the 1960s and 1970s, as subaltern identity politics become a specific public issue. Increasingly assertive indigenous claims about their ability to control and assert their own identity coincided with the identification of material culture as 'heritage', and its regulation and management by a body of expertise and technical and legal processes. This confluence of events and processes had a significant political impact for indigenous political and cultural claims and aspirations. Meanwhile, globalization has seen an increase in the assertion of local and community identity claims that are expressed and disseminated through a broadening range of media. Heritage did become a useful discourse through which to make sense of, regulate and ultimately control the increasing public emergence of local and competing claims to a range of cultural, social, historical and other identities and experiences (Smith, 2006). At the same time, the designation of world heritage site brings about economic, socio-cultural, physical and attitudinal changes. Both positive and negative changes

for local communities in/around the heritage site after world heritage site listing are identified. There are three main factors behind these changes: the extensive and rapid tourism development after the inscription; the high level of appeal of a heritage status for domestic tourists; and local people's attitudes towards conservation of the cultural environment and the heritage status (Takamitsu, 2011).

Heritage is valued in myriad and sometimes conflicting ways. These different means of valuing influence negotiations among various stakeholders and thus shape conservation decision making. Given the increasing needs and calls to protect and preserve heritage, conservation professionals are challenged to revise, rethink, and strengthen previous methods as well as the philosophical underpinnings. Research on questions of values (their importance, their multiplicity, conflicts between them), pursued across disciplinary and professional lines, is essential for this task (Erica, 2000).

This paper presents three case studies on the different values of stakeholders towards world natural heritage. In particular, the paper discusses how the universal values of world heritage and the values of stakeholders affect the protection of world heritage. Then, based on the recognition of the different values, future issues and perspectives regarding the coordination of interests among stakeholders are discussed.

Case Study 1: Ha Long Bay, Vietnam

Brief synthesis and OUV

Ha Long Bay, located in the Gulf of Tonkin, within Quang Ninh Province, in the northeast of Vietnam, is 165 km from the capital of Ha Noi. Covering an area of 43,400 ha and including over 1600 islands and islets, most of which are uninhabited and unaffected by humans, it forms a spectacular seascape of limestone pillars and is an ideal model of a mature Karst landscape developed during a warm and wet tropical climate. The property's exceptional scenic beauty is complemented by its great biological interest. Ha long Bay was registered as a world natural heritage site by UNESCO in 1994.

The outstanding value of the property is centered around the drowned limestone karst landforms, displaying spectacular pillars with a variety of coastal erosional features such as arches and caves which form a majestic natural scenery. The repeated regression and transgression of the sea on the limestone karst over geological time has produced a mature landscape of clusters of conical peaks and isolated towers which were modified by sea invasion, adding an extra element to the process of lateral undercutting of the limestone towers and islands (UNESCO, 2021b)

The area is the most famous tourism spot in Vietnam, where a number of tourists from both home and abroad.

Increasing visitor numbers and associated impacts continue to impact on the management of the property. Development pressures associated with growing tourist numbers continue to be an issue for government authorities and an appropriate balance between conservation and development, while difficult to maintain, is important to ensure the protection of the natural values of the property.

Ha long area is one of the foremost coal mining area in Vietnam and plays a key role of regional traffic system which has been functioned as a main industrial development zone in northern Vietnam. Urbanization is progressed with rapid industrialization by development of coal mining area, cement and brick factories, and power plant around the Ha long Bay. Under the situation, the following has become pollution sources and environmental issues to be solved in Ha long Bay: wastewater and solid waste from mining areas and factories, domestic wastewater by urbanization, increase of tourist facilities, deforestation of the mangrove, sediment deposition at ocean area, deregulated landfill, and wastewater and oil flow from ships and boats.

Survey on willingness to pay for environment

Japan International Cooperation Agency (JICA) implemented the study on environmental management for Ha Long Bay in 1999 and as a part of the study, questionnaire survey on willingness to pay for environmental value was carried out by JICA and Quang Ninh Province (JICA, 1999). The survey was designed to collect opinions for assessing willingness of local residents, national and international tourists to pay for the environment protection of Ha Long Bay. The survey for collection of opinions of tourists and local residents could be used as basic data of assessment of the benefits coming from activity for protection of environmental quality of Ha Long Bay.

RESULTS OF THE SURVEY

Tables 1 and 2 are the result of the survey on willingness to pay. Targets included local residents, national and international tourists. The sample size is 215 (0.1% of the total population in the study area), 145 (0.1% of all travelers: as of 1997), and 145 (0.1% of all travelers: as of 1997), respectively. The interviewer introduced to interviewees general environment aspects of Ha Long bay and clearly describes 3 images of pollution level in Ha Long bay that could happen in future including very polluted (Image A), no changed (Image B) and better water quality than now (Image C). The results were compiled in the form of interviews about how much people are willing to pay as a percentage of their annual income.

Table 1. Willingness to pay for environment of ha long bay.

(Foreign tourists)			
	Image A (%)	Image B (%)	Image C (%)
No contribution	35	26	21
≤0.1%	19	20	15
0.1 -0.5%	22	30	26
0.5 - 1.0%	10	8	13
≥1%	14	17	24
(National tourists)			
No contribution	52	25	16
≤0.1%	23	26	28
0.1 -0.5%	17	30	28
0.5 - 1.0%	6	9	12
≥1%	1	10	17
(Local residents)			
No contribution	18	16	11
≤0.1%	20	21	20
0.1 -0.5%	41	41	45
0.5 – 1.0%	20	20	20
≥1%	1	2	6

Table 2. Average willingness to pay (WTP) of tourists and local residents for the environmental management plan.

Items	Units	Foreign tourists	Vietnamese tourists	Local residents
(1) Average WTP for non-use value	US\$/Household/year	6.2	1.2	0.3
Item(1)/Item(4)=	US \$/person/year	1.8	0.3	0.1
(2) Average WTP for use value	US\$/Household/year	12.5	1	1.1
Item(2)/Item(4)=	US \$/person/year	3.6	0.2	0.3
(3) Average WTP in total				
Item(1)×Item(5) + Item(2)×Item(6)				
Item(3)/Item(4)=	US\$/Household/year	10.9	1.4	0.4
	US \$/person/year	3.1	0.3	0.1
(4) Average Household members	person/household	3.5	4.6	4.2
(5) Ratio expressing WTP for non-use value	%	14	21	53
(6) Ratio expressing WTP for use value	%	61	53	30
(7) Total ratio expressing WTP either for non-use or use value = Item(5) + Item(6)	%	75	74	83

Table 1 shows that there are no significant differences for three images in the willingness of local residents to pay for the conservation of Halong Bay's environmental conditions, while there are significant differences in the willingness of tourists, especially Vietnamese tourists, to travel to Halong Bay. Many (52%) are not willing to pay at all if the environment gets worse, while the percentage of those willing to pay more than 1% of their income if the environment gets better has increased sharply (from 1 to 17%). This trend also applies to foreign tourists, although the rate of increase in numbers differs.

Table 2 was compiled to assess the economic and financial relevance of the environmental management plan. The figure shows that most of the tourists (foreign and domestic in Vietnam) are interested in the use value of the environment of Halong Bay, while about half (53%) of the local residents are interested in the non-use value. In the interviews with local residents of this survey, there were many opinions about the landscape of Ha long Bay, such as that tourism is threatening the landscape of Ha long Bay and that the landscape of Ha long Bay should be properly protected. In addition, opinions touching on

the history of Ha long Bay were also confirmed. In general, the Vietnamese have an ancient religious connotation to the caste landscape regarding the origins of Vietnam. Ha long means "descending dragon," and it is also the site where legend has it that when Vietnam was once invaded by an enemy nation, a dragon soaring through the heavens descended and turned into a rock. This is where the mystique of Ha long Bay lies. The difference in values between tourists who use Ha long Bay as a tourist resource and locals who find meaning in non-use values such as Vietnamese legends and origins can be seen.

Case Study 2: Galapagos Islands

Brief synthesis and OUV

The Galapagos Islands, a natural laboratory of evolution, is known as the place that gave rise to Darwin's origin of the species evolution theory. It was among the first sites inscribed on the UNESCO World Heritage List in 1978.

Despite the Islands' outstanding and precious biological features, there are grave concerns over the future of their unique ecosystem. Invasive or introduced species control, tourism and artisanal fisheries regulations must be enforced as soon as possible. The relationships among stakeholders such as Government, the National Park Service, the Darwin Research Station, and the local community must be improved in order to preserve the integrity of the Islands' seriously threatened biological and cultural diversity.

A few particularly serious problems include invasive species and introduced agriculture. In order to combat these problems, the Special Law for the Galapagos was enacted in March 1998. Through enactment of this law, important progress has been made in fisheries, tourism and quarantine regulations. It is also said that since mid-2001 there has been little progress. For example, industrial and medical waste was discarded without any treatment. It was burned in a field (albeit outside protected area and far from local residents) (JICA, 2001). This report also indicated that toxic waste like dioxin was a byproduct of this burning and occurred easily. This could have a considerable negative impact on the Islands' ecosystem.

Local communities' awareness of natural heritage

The relationships between management authorities and local communities underpin the success of natural heritage conservation. The three tables below are collected from Galapagos authority, which aimed to analyze the situation outside the protected area with special focus on the local communities. These results served to formulate a JICA technical cooperation project.

Table 3 shows that immigrant control is regarded as the most important issue for environmental conservation. A report published by the Ecuadorian Government revealed that the annual population growth rate on the Islands was around 6.4%. The rough number of immigrants from other countries or areas such as the main land accounted for 65% of the entire population on the Islands. Strong attention was paid to the fact that rapid population growth was not derived from births on the Islands, but from the immigrants.

A great number of immigrants are people who sought jobs on the Islands, particularly in the fishery. Local long-term community members think of immigrants as the main source of illegal human activities and the carrier of invasive species. They also feel that the immigrants put a heavy burden on environmental capacity and have a huge overall negative impact on the Islands.

Interestingly, but not surprisingly, Table 4 indicates local people have no intention of leaving the Island in order to protect the rare ecosystem, despite the recognition that immigration is the main threat to the Islands' future environmental well-being. Table 4 also reveals that as a whole, environmental awareness of the local community is very high.

From Table 5, it can be interpreted that government regulations and laws did not seem to give enough consideration to local people. Local management authorities appear to believe that local communities are important for protection of the Islands, but local communities were not satisfied with the fact that around 97% of the entire Island was designated as a protected area, thus restricting their access to natural resource use.

Physical distance among protected area, heritage site and local community

As mentioned above, around 97% of the terrestrial area in the Galapagos Islands was designated as a protected area. This means that local people are allowed to use natural resources on only 3% of the Islands. This strict situation of protection of the Islands' precious ecosystem and regulation of human access enhances the value of Galapagos from the positive and tangible point of view. From the local people's point of view, however, it is often recognized that designation of the Islands as a natural heritage site and enactment of the special law forces local residents to restrict their access to natural resources. As a result of the regulation, especially regarding artisanal fishing, strict protection has become a fundamental cause of social conflict. In other words, the balance between severe or rigorous ecosystem protection and sustainable natural resources use is not enforced. It will be necessary, however, to enforce laws while at the same time maintain a sensitive balance between protection and sustainable use. This is crucial to preserving the Islands' global assets for future

Table 3. Which do you think is the most important issue for conservation among the following five items?

Item	Proportion by choice (%)
Control of immigrant numbers from main island/other countries	33.2
Control of invasive species	24.2
Regulation of natural resource use	18.9
Protection of the flora	14.0
Protection of the fauna	9.2
All five items above	0.4
Total	99.9

Table 4. Indicator of approval against the environment legal control.

Do you agree with the following control or regulations?	1997	1998	1999
Ban on shark capture	70.6	77.6	70.5
Closed season establishment for fishery	70.1	76.7	79.6
Ban on sand extraction from coastal area	79.1	90.4	90.4
Ban on cutting-down of native trees	64.9	77.6	78.5
Inspection implementation	69.9	77.3	74.2
Immigration control against new families	27.4	32.7	37.5
Control of tourist numbers	48.9	42.4	32.6
Ban on sea cucumber capture	60.4	62.8	37.3

Note: the number indicates the percentage that local people agree to the given questions.

generations of inhabitants and visitors.

Necessity of comprehensive framework with the consideration of intangible value

The biological value (tangible value) of the Galapagos is definitely the basis of the protection/conservation from the global and biological point of view. However, among most visitors and some residents of the islands there is an unquestionable sense of awe and holiness (intangible value) in the Islands' biology. It is also considered to be a biologically sacred place. It has been featured in books and films for decades, which reveals the reverence that scientists have held for the Islands ever since Darwin's discoveries years ago. The Galapagos is one of the world's best known heritage sites, and at the same time it is also an undeniable fact that local people consider the Galapagos as their own asset (as shown in Tables 3 to 5).

The Galapagos is an omnibus of international communities. These communities have begun in earnest to design and construct for the Islands a new framework in a comprehensive manner. This framework places great and equal emphasis on both tangible and intangible values. As mentioned, tangible values such as locally-rooted culture and life style are very important factors in

protection/conservation of the Islands' natural environment. It is admirable that the international community and the Galapagos authorities in charge of managing the environment have concentrated and focused their activities on biological and cultural aspects of conservation.

In the case of the Galapagos, as in all protected areas, it is necessary to value local society, local culture and identity as fundamental factors for conservation. Also, it is important to recognize that it takes time, indeed generations, for cultural values to develop among newly established residents. In the Galapagos where there are many immigrants, it is very difficult to identify local society and cultural identity among the newcomers. It could take years to develop a deep cultural identity and society among new settlers. A lack of attachment to the Islands' cultural and biological history, however, could lead to a corruption of society and culture. This in turn could lead to the collapse of the environment or ecosystem in the long run. In this context, it is necessary to put more emphasis on intangible values of Galapagos Islands.

Despite the efforts by Galapagos authorities and international communities to involve local community from the beginning stage in designing and implementing the law and regulations, the local community is at a loss of what to do about the wave of migration and outside

Table 5. The level of local communities' awareness of the Galapagos' special law.

Do you agree with the following opinions?	MD	ED	NAD	DA	MA	NS/NR
Special law is effective for environmental conservation.	1.5	4.3	10.1	68.5	14.1	1.5
Special law affects negative indirect impacts to local people.	3.4	45.3	21.2	24.0	4.9	1.3
Government attaches importance to fauna rather than local people	2.9	16.6	24.2	40.8	14.2	1.2
There is not enough space for local people to live and use natural resources, with huge spatial space for conservation.	1.8	23.1	14.2	48.1	12.5	0.3

Agree \longleftrightarrow Disagree Don't know or no response

The above classification indicates as follows: MD; Not agree at all; ED; Not agree; NAD; Neither agree nor disagree; DA; Agree; MA; Agree absolutely; NS/NR; Don't know or no response.

pressures. International communities are just facing the need to address this unsettled condition by increasing preservation of tangible values. Thus, it is needed to work with newcomers, as well as the long term residents, to instill a sense of guardianship of the Islands. This is the only effective way to be taken by international conservation bodies to leave the Galapagos Islands to future generations.

Case Study 3: Shirakami-Sanchi, Japan

Brief synthesis and OUV

Shirakami-Sanchi contains a large pristine, non-fragmented beech forest. Planted forests of timber trees, such as Japanese cedar, have replaced many of the beech forests in northern Japan while within the boundaries of the property the unmodified beech forests are densely and continuously distributed. The area is largely a wilderness with no access trails or man-made facilities. The property includes all elements necessary to maintain the ecosystem function of beech forests and the area of the property, 16,971 ha in total, is of an adequate size to ensure the long-term existence of the beech forest ecosystem. Further to the strict legal protections, almost no logging of beech trees has been carried out in the property due to lack of access to the central part and precipitous topography of the property. Also, tourism activities are limited mainly to the areas near the boundary or the surrounding areas of the property. Consequently, the property preserves this extensive area of pristine forest with little human intervention.

The local offices of the relevant ministries and prefectural governments involved in management of the property established the Shirakami-Sanchi World Heritage Area Liaison Committee in 1995 to promote conservation management of the property in collaboration and cooperation with the local community. The Committee coordinates the management of the property including information sharing, awareness raising, instructions to visitors, and maintenance of facilities. (UNESCO, 2021c).

Differences between World Natural Heritage values and community values

Tonosaki (2014) analyzed differences and disagreement between world Natural heritage values and community values of Shirakami-Sanchi. Sites with outstanding and universal values based on the criteria for inscription are placed on the world heritage list as natural heritage. But she pointed out that there may be a discrepancy between the natural values recognized at the time of inscription on the World Heritage List and the values recognized by local communities.

The value of Shirakami-Sanchi is not limited to the beech trees, ecosystems, and wilderness registered as a world heritage site, but also includes a wide range of other natural, cultural, and historical values. However, with the registration of the Shirakami-Sanchi as a world heritage site, perspectives have focused on the value of the site, and only the value recognized as a world heritage site has come to be the focus of attention (Figure 1). Before it was registered as a world heritage site, Shirakami-Sanchi was valued not only for its beech trees, but also for the nature and culture that centered on them. After it was registered as a world heritage site in 1993, however, the values changed to strictly protect the wilderness and not allow human intrusion. The World Heritage management plan covers 16,971 ha in the world heritage area, and focused on the primary beech forest which was evaluated for world heritage status, and the ecosystem which was a criterion for world heritage listing. This led to a lack of recognition of historical and cultural values, as well as values from a holistic view, and the value of Shirakami-Sanchi was narrowed to that of pristine nature, which deviated from the community's concept of Shirakami-Sanchi as a place in harmony with nature, and this is where the value discrepancy occurred. In this way, the community's perception of the value of Shirakami-Sanchi is missing, and by focusing on the value of being registered as a world heritage site, the community and Shirakami-Sanchi have become more and more psychologically distant. This also poses the danger of making it difficult for communities to become proactively involved in the protection of world heritage sites.

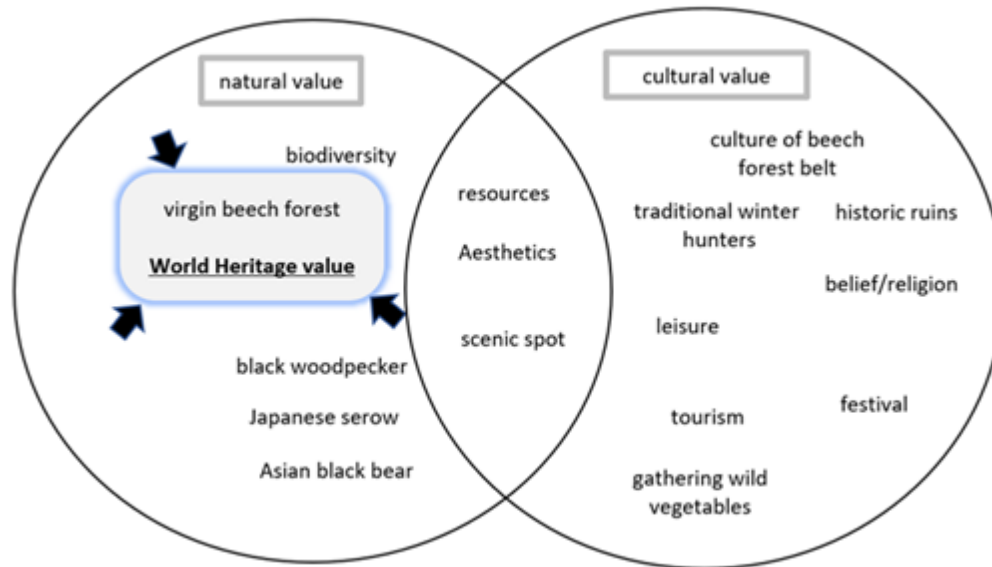


Figure 1. Shirakami Sanchi's intrinsic value and world heritage value.
Based on Tosaki (2014), partially modified and provisionally translated by the author.

DISCUSSION

As outlined in the case studies, there is a difference in values related to heritage between the outside and inside of a world heritage area. This is the difference between values that have been handed down from generation to generation and have a deep relationship with the traditions and history that existed in the area before it was inscribed on the world heritage list, and new world-class values that have come from outside. Here, discussions on the future prospects for protecting world heritage sites for future generations are made, while maintaining and evolving the sense of values that have been handed down from generation to generation in the heritage sites since ancient times, recognizing these differences in values.

How should world heritage confront external values that differ from OUV?

As can be seen from the case of Ha long Bay, Vietnam, domestic tourists have a different sense of value from foreign tourists than do OUVs of World Heritage sites. It is an external value system that is different from OUV, and such external value system is fluid and not fixed. In other words, it is a sense of value as a temporary tourism resource. If the world's last remaining regions are in tune with these values, it is possible to achieve economic benefits, but on the other hand, there is a concern that promoting tourism in pursuit of economic benefits will also lead to environmental problems such as garbage problems. If this happens, the value of world heritage

sites to outside tourists will decline and they will lose their value as tourism resources. Such a structure is unsustainable and one-sided, and it is necessary to develop policies and specific mechanisms to ensure that economic benefits and world heritage protection are compatible so that the priority is not placed on economic benefits only.

How different local values in/around world heritage site can be reconciled?

In order to protect the Galapagos Islands which is a global sacred site, government authorities and the international community will continue to make thorough conservation measures, including strict restrictions on outsiders as a top priority policy. Local communities, who are often left behind by the international boom, are likely to be dissatisfied with the services provided by park authority and government agencies, but will support measures to limit the number of immigrants out of a sense of urgency to protect their own lives. Even if local communities do not necessarily value the Galapagos Islands as an "international and global sanctuary," in order to protect themselves in the international boom, they may need to be more in tune with the global values of the Galapagos Islands as considered by government authorities, researchers, and international aid organizations. Although they have different values, if the government, international community and the local communities want the same results at the end, the sustainable protection of the Galapagos Islands using this reality may be able to proceed successfully.

How conflicts between different values can be overcome?

The case of Shirakami-Sanchi argues for the necessity of integrating the OUV of the world heritage site with the sense of values unique to the local area. As already mentioned, the external factor of world heritage registration has a great impact on local values. As long as there is interaction and contact with the outside world, there may be no values that will remain unchanged forever. We must carefully continue the traditions and values that have been handed down from generation to generation by the community living in the site, and develop them while cultivating the future. In order to build consensus among stakeholders, mutual understanding among people with different opinions, positions, and values is necessary. When different values collide, it should be possible to unravel them based on field practice and attempt to reconstruct values by setting a new axis for how values should be, such as resource values, spiritual values, and academic values. New values are created in the intersection of global and local values, and the developmental succession of these values contributes to the protection of OUV of the world heritage.

How to create new values through interaction between external and local values?

As earlier discussed, here more discussion on the creation of new value is made. If local communities living in the world heritage site believe that the local environment and natural resources are their own and important to be protected for future generations, then efforts are needed to nurture their values and perspectives. External support may be acceptable, but considering the sustainability of the initiative, support that encourages community-based development is desirable. On the other hand, the international community has a great cause to protect the OUV of world heritage sites, and a framework of new incentives and external support might be needed for this purpose. Relationships with urban areas are also important for world heritage protection. As in tourism, the values of those who "use" world heritage sites are not constant or universal. Urban "outsiders" take a temporary interest in the external environment and natural resources, but when they no longer find value in them due to environmental destruction or pollution, for example, their interest fades and they turn to others. In the meantime, exchanges with urban areas not only bring economic benefits, but also help local community to rediscover their own culture and traditions or discover something new. Interaction with the outside world will contribute to "raising the level of awareness" of world heritage, including information disclosure, and as a result, not only the OUV but also the

unique traditional values of the region will become visible. As a result, new values can be added to traditional values. Interaction with the outside world contributes to the evolution of the region's unique values, flexibly adapting them to the times. This has important implications for the protection of the OUV of world heritage.

Does world heritage protection contribute to community empowerment?

As a practical matter, it is difficult to protect world heritage without the understanding and cooperation of local community. The protection of world heritage sites rooted in the local community is closely related to various values rooted in local cultural context. Among them, the maintenance and inheritance of intangible values or non-material values is extremely important for the protection of world heritage. The intangible values or non-material values include spiritual values, rituals, belief, and oral traditions. It is also widely recognized that natural heritage sites have cultural, historical and religious significance for local communities and can create a sense of awe. Moreover, the existence of heritage is also recognized as a basis of cultural diversity and is crucial to social cohesion. Local communities living around or in natural heritage sites are usually aware of biological and cultural values. Cultural ties that link people to the natural world remain strong in many communities living close to biodiversity. Cultural institutions enforce norms of practice through compliance mechanisms that depend on continued belief in, or attachment to, traditions and values (Ostrom, 1990) and can be more effective than externally imposed sanctions (Colding and Folkes, 2001).

Though local communities recognize the importance of tourism as a mean of income generation for local economy development, globalization and other human pressures could be a risk of threatening natural heritage sites that have been protected by international framework for several decades and often by communities for centuries. More seriously, such globalization and economic development are not only because of the fear of destruction of the world natural heritage, but also because it is forcing a change in the local people's sense of value towards the world heritage. This teaches us the importance of recognizing that such a change in values will be a major threat to the future protection of world natural heritage.

Value-arguments based on science and economic rationalism increasingly overshadow the aesthetic and ethical arguments that originally inspired the conservation movement (Paul and Susan, 2003). There should be no discomfort in finding a certain justification for the local communities, who are the guardians of the region's history and culture to own them and continue to protect them. It is also an idea that relies on common sense

regardless of logic, and is considered to be innate in all people's reasoning, and therefore has a persistent and strong resilience (even to criticism). In case where there are significant international, political and economic influences, the logic of this external common sense can redefine local common sense, and in the process of mutual influence with the community, the concept of common sense of the local community who are often socially vulnerable can be weakened.

Mark et al. (2018) pointed out a values-based approach is essential to promoting world heritage protection for indigenous peoples and local communities that have long maintained traditional values. Cultural norms are the important determinant of the relationship between people and nature, and through the medium of cultural institutions and traditions, it may be possible to promote nature conservation more effectively than external uniform standards, such as the World Heritage Convention, and in some cases, some regulations and restrictions.

The conservation of the local natural environment through the cultural aspects of the local residents and their relationship with nature might make the conservation activities inherent to the residents, create legitimacy and motivation for the conservation, and also ensure that the conservation of the natural environment is carried out in a sustainable manner. This is different from the story that conservation of the natural environment is a priority for local residents. The objectives of the World Heritage Convention and local community may differ. However, inscription on the world heritage list could also contribute to the international community's recognition of the cultural values of the region and the traditional rights of the local people. As a result, it is expected that the international community's support for respecting and maintaining the identities of local communities could strengthen the cohesion among them and enhance their ability and resilience to flexibly adapt to internal and external social, economic, and environmental changes.

Future perspective

Tonosaki pointed out future perspective for protection of Shirakami Sanchi. In the case of Shirakami Sanchi, the question is who will take the lead in protecting the world heritage site. One of the world's largest distributions of pristine natural beech forests, virtually untouched by human influence, is one of the characteristics of the Shirakami Sanchi, and is a universal value as a world natural heritage site. On the other hand, the reality is that people are using the natural resources in the surrounding area, and the protection of the world heritage site as a whole requires a balance with human activities. The values that communities originally envisioned for Shirakami-Sanchi, such as local beliefs, festivals, and harvesting of wild plants, need to be reaffirmed as

important values of Shirakami-Sanchi. In order to utilize this cultural perspective in the protection of world heritage sites, a mechanism for communities to proactively participate in the protection of world heritage sites is needed. It is a system that integrates the universal values of world heritage with the values that communities have had. According to Tonosaki, one way to achieve this is to establish areas where sustainable human activities are allowed. It is necessary to pursue measures to maintain the diverse values of Shirakami-Sanchi as a natural heritage and pass them on to future generations.

In the meantime, Ping (2008) identified that the social quality of living heritage sites is sensitive to various changes in land use: spatial morphology and spatial operation, and indicated the necessity of bottom-up, community-based approach to retain high social quality of the living heritage sites in the long run. Globalization is having a major impact on world natural heritage sites, and local communities are under pressure to make significant changes. There is a growing need for efforts to maintain and develop the quality of life of local communities without compromising it. This is also in line with the current Sustainable Development Goals (SDGs). The International Council on Monuments and Sites (ICOMOS, 2021) has developed guidelines as World Heritage is the foundation for efforts to achieve the SDGs and further efforts are needed. Considering that heritage-based approaches can contribute to sustainable development in more ways than conventionally assumed, the guideline engorges a call to mobilize:

- 1) the knowledge and resources transmitted through heritage to achieve the well-being of People (SDGs 1, 2, 3, 4, 5, 6,11);
- 2) a 'Culture-Nature' approach and landscape-based solutions to achieve the well-being of the Planet (SDGs 6, 7, 11,13, 14, 15);
- 3) the shared resources embodied in heritage to achieve Prosperity of communities (SDGs 5, 8, 9, 11, 12, 14);
- 4) the connecting power of heritage for social cohesion and dialogue to achieve Peace within and among societies (SDGs10, 11, 16); and
- 5) the shared medium of heritage and its connections with all aspects of human life to create Partnerships (SDGs 11, 17).

Each goal of the SDGs is interrelated. It is very important to take a cross-sectional perspective as described above. It will be even more important to accumulate empirical findings that the conservation and protection of world heritage sites contribute to the achievement of the SDGs.

Conclusion

In today's world, where there are different values, there

are many times when these values become apparent and sometimes conflicts among stakeholders happen with each other. There are naturally a wide variety of values on the planet, and we need to respect and mutually understand these different values. On the other hand, the international framework, the World Heritage Convention, is a global standard with OUV, although its characteristics are diverse. For registered sites, the global "external" endorsement should require them to comply with new global standards. At the same time, external global standards will force new changes on the ground in registered sites. Environmental problems are anthropogenic and a product of values. The values that have traditionally persisted in a region will change and evolve while adapting to values that come from outside, not necessarily pandering to values from outside. It is something that does not happen over a long period of time.

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CONFLICT OF INTERESTS

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