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## TENTATIVE PROGRAMME

Day 1	2 March 2016	Remarks
09:00	Introduction NIFoS: Opening remarks FRIM/APAFRI: Welcoming remarks	Kim Kyongha Abd Latif Mohmod
09:30	Participants Introduction	
10:00	Group Photo & Coffee Break	
10:30	Introduction about the Workshop	APAFRI/Sim HC
11:00	<i>Folk Culture: Proverbs, Old Sayings and Community Rules for Ecosystem Services:</i>  in Korea  in Indonesia  in Peninsular Malaysia	Moderator: Park CR
12:30	Lunch	
14:00	<i>Folk Culture: Proverbs, Old Sayings and Community Rules for Ecosystem Services:</i>  In the Philippines  in Sabah  in Vietnam	Moderator: Lim HF
15:30	Coffee Break	
16:00	Follow-ups for Surveys in SE Asian Countries: Mapping	Shin YJ
17:30	<i>Concluding Remarks for Day 1</i>	
19:30	Dinner	

Day 2	3 March 2016	
09:00	Current Status and Future Directions	Park CR
09:30	Discussion on Future Research	Participants
10:30	Coffee Break	
11:00	Continuation of Discussion and Planning for Future Research	Participants
12:30	Concluding Remarks on the Workshop	NIFoS
13:00	Lunch	
14:30	Depart for Bahau	Lim HF
19:00	Dinner	
20:30	Night at Bahau	

Day 3	4 March 2016	
08:30	Depart for Field Trip	Lim HF
16:30	Depart to Kuala Lumpur/Home	

## FIELD TRIP PROGRAMME

4 March 2016		Remarks
08:30	Arrival of participants <ul style="list-style-type: none"> <li>• Traditional performance</li> <li>• Welcome drinks</li> </ul> Handicrafts display and demonstration Traditional music performance Blowpipe performance Balai dance performance Discussion with local community	
13:00	Lunch Eco-tourism visit <ul style="list-style-type: none"> <li>• Terrace paddy field</li> <li>• Herbs garden</li> <li>• Bera Lake (by boat)</li> <li>• Coffee break</li> </ul>	
16:30	Depart for Kuala Lumpur	

## WELCOME ADDRESS

**Dr. Kyongha KIM**  
Secretariat General  
Asian Center for Traditional Forest Knowledge (ACTFOK)  
NIFoS, Korea

Ladies and gentlemen, I would like to welcome all of you to Kuala Lumpur, Malaysia.

It is a great pleasure that **National Institute of Forest Science (NIFoS), Korea, FRIM, and APAFRI** co-host this regional workshop on Sharing Traditional Forest-related Knowledge for Proverbs, Old Sayings and Community Rules in ASEAN Countries.

Let me extend my gratitude to **Dr. Sim Heok Choh and Dr. Gan Kee-Seng, Former and Current Executive Secretaries of APAFRI**, and all participants for attending this workshop. Also, I would like to thank the moderator, speakers and all the distinguished guests for being here with us today. Currently, half of the world population lives in urban area. On the other hand, as a result of urbanization and modernization, the population size of rural areas continuously has been decreasing. Rapid urbanization affects the cultural and social binding of local community which forms and maintains traditional forest-related knowledge. In this fast changing environment, each community has been confronted with the world-wide common problem global warming as well as a disturbance of ecosystem services as the local problem.

Most of the ecosystem services can be evaluated at local level. This evaluation process provides a better understanding of the traditional forest-related knowledge. This traditional forest-related knowledge is important input to establishing sound and long-term sustainable forest management policies and strategies.

Countries in the Asia Pacific region, especially in the sub-region of Southeast Asia, have very diverse forest types providing various different types of ecosystem services. It is a challenge to understand and properly document the ecosystem services at local, regional and global levels. Also, it is important to note that there are 260 millions of indigenous people who live at Asian Region. These indigenous people have been transcending the wisdom and traditional knowledge with the type of Proverbs, Old Sayings and Community Rules.

This workshop on Proverbs, Old Saying and Community Rules related to TFK will help us understand a hidden meaning of TFK to share information and data.

To this end, NIFoS established '**Asian Center for Traditional Forest Knowledge (ACTFOK)**' as a hub of oriental traditional forest-related knowledge in 2012. I would like to seek your continued support and cooperation. I believe this workshop is very significant and timely since now forest cooperation among Asian countries is highly required. I hope our discussions here will result in fruitful outcomes through your active participation.

Once again, I would like to offer my appreciation to all of you for joining us today despite your busy schedule, and I wish APAFRI the best success.

Thank you.

## WELCOME SPEECH

**Dr Abd. Latif Mohmod**  
Director General  
Forest Research Institute Malaysia

Good Morning Ladies and gentlemen,

First and foremost, allow me to express my upmost gratitude on behalf of FRIM, for the honour to host this workshop here in Kuala Lumpur. I also like to thank the National Institute of Forest Science, Republic of Korea (formerly known as Korea Forest Research Institute), for the generous contributions which support this workshop.

Ladies and Gentlemen,

The 10 ASEAN countries are endowed with very rich forests which are hosts of very diverse fauna and flora. They are homes to a big number of indigenous communities with very diverse cultural and religious beliefs and customary practices.

The rapid economic transformations experienced by these countries during the past two decades or so, had greatly eroded the traditional cultures and beliefs. Along with this, also fast disappearing are the very rich and diverse traditional knowledge, many are closely related to their daily livelihoods including their understandings of the ecosystem services.

The current world environmental crisis has been attributed to the adverse impacts of the declining natural resources, global warming and climate change. All inter-related, and have great impacts on human wellbeing, and national economies in many countries.

This is to have far reaching impacts on the culture and long-term sustainability of the indigenous and local communities, as the people having such traditional knowledge are the indigenous and local communities.

It is within this context that there is a need to rediscover the traditional forest-related knowledge, often in the form of folk culture, songs or proverbs, old sayings, idioms, and the like. These knowledge, grew out of ancient wisdoms and enriched over many generations, could still be relevant to the present days practices to rake the benefits of the ecosystem services. Many of these which have been passed down the generations, usually by words of the mouths, were fast disappearing and forgotten. The documentation of these has becoming more critical, and warrant more attention from researchers and academicians across the region.

The Forest Research Institute of Malaysia, of which I am the Director General since 2008, has embarked actively on various activities in research and development in the sustainable utilization of the rich natural resources in our tropical forests. As one of the premier research institutions on tropical forestry, FRIM has been active in many regional and international forums. Its many achievements in forestry research over the years had gained FRIM more than a dozen awards, nationally and internationally.

Since the establishment of FRIM as a statutory body in 1985, increasing attention has been given to research on socio-economic issues of indigenous communities living within at the fringes of forest reserves. Among the aspects examined are utilization of forest resources, sources of income, employment, income level, poverty and impact of forest activities on local livelihood.

Commencing during Ninth Malaysia Plan (2006-2010) and continue through the 10<sup>th</sup> Malaysia Plan (2011-2015) and current 11<sup>th</sup> Malaysia Plan (2016-2020), FRIM has been entrusted the responsibility by the Malaysian government to examine issues related to traditional knowledge (TK). The focus is on the traditional knowledge of the Orang Asli (Indigenous People) related to forest biodiversity. So far, the study has examined 15 out of 18 Orang Asli sub-ethnic groups in Peninsular Malaysia. Malaysia is also in the process of finalizing the Access and Benefit Sharing Bill to be tabled in the parliament.

Such bill will enable TK knowledge holders to have a share in the benefits derived from developing commercialized products in the future.

FRIM has also collaborated with a number of institutions, within and outside, Malaysia, on various topics. Some of these collaborations are still on-going. FRIM welcomes collaboration proposals with mutual interest and benefits.

Thank you very much, and I wish you all a very successful and fruitful deliberation during these two days in Kuala Lumpur.

## Protocol to Survey Proverbs and Old Sayings Related To Climate Change and Forest Management in ASEAN Countries

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We have been going through obvious change of climate and the environment in the last few decades. There is a strong need to find ways to mitigate and adapt this change. There are more than 2,000 indigenous communities are living in Asia. They have their own culture derived from their natural environment. When their ancestors had interacted with it, they observed nature closely and learned how to deal with severe situations such as climatic disturbances and how to manage their natural resources. This traditional ecological knowledge (TEK) has many implications to us in this modern society.

TEK is often transmitted by oral tradition. Out of oral tradition, there are proverbs and old sayings which are expressions of truth based on common sense or experiences of communities. They reflect spiritual values of each culture. Therefore, proverbs and old sayings can be the means to explore TEK and we can learn from it how to solve our current problems by looking into the proverbs and old sayings of indigenous people and how they recognize it.

Therefore, we suggest a protocol to survey proverbs and old sayings related to climate change and forest management and to conduct proverb recognition survey in one village in participating ASEAN countries in 2016. By doing so, we hope to identify the common value of Asian culture and to have further understanding on Asian knowledge system.

**Keywords:** Climate change adaptation, indigenous people, sustainable management, traditional knowledge

## Nature Philosophy of Minangkabau

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According to Navis (1984) in his book “*Alam Terkembang Jadi Guru*”:

People of Minangkabau named their homeland “Alam Minangkabau” (Minangkabau Nature). The use of the term “alam” (nature) has an extensive meaning. “Alam” (Nature) is everything for Minang people. It is not only a place where they were born and will die, a place where they live and grow, but there is also philosophical meaning as conveyed in their proverb. The proverb *Alam takambang jadi guru* (literally means “nature unfurled to be a teacher”; the nature is there to teach people). Therefore, their teachings and philosophy of life, as stated in their proverbs, adage, axiom, and others, take expression from the form, characteristics, and life of the nature.

The Minang people see the nature and its elements as composed of four elements known as “*nan ampek*”. These four elements could be observed as: sun, moon, earth and stars; noon, night, morning, and afternoon; west, east, north, and south; fire, water, soil, and wind. All different elements of nature have different degree and roles. They are related to each other, but do not bind each other; are collided with each other, but do not obliterate each other; are clustered with each other, but do not merge with each other.

Each element lives with its own existence in a harmony, but also dynamic in accordance with the nature’s dialectics, known as “*bakarano bakajadian*” (has cause and effect).

If nature and all its elements are equated to human life, just as they liken nature as their Minangkabau homeland, then natural elements can be comprehended as institutions or individuals in their community. Each has the right to hold the existence in the course of their lives. Each institution has the responsibility to maintain individual existence in their institution. In addition, each individual also has the responsibility to protect the existence of their institutions. Meanwhile, harmony is valued as conformity or suitability of life among institutions and among individuals, between institutions and individuals, and vice versa. Each institution or individual has different degree and role. Therefore, they will not be able to “merge” with the others, but will still be the same as the others. So, in the dynamic of harmony, they are “each” become “one/unity” to be “together”, and each become “the same/equal” to be “individuals”.

**Keywords:** Philosophy, Minangkabau, harmony, nature, teacher.

## Efforts of Dayak Punan Adu Customary Community to Protect Their Legacy

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Dayak Punan Adu Customary Community is a member of eleven customary communities who are still dwelling Malinau forests and surroundings. Their nomadic lifestyles have been gradually changed to semi-sedentary. Although they already adopted Christianity and established a sedentary village, the strong bond with the nature and traditional beliefs kept them unified with their land and forests, their home. However, their home has been deforested by logging concessions for some years and their hunting and gathering locations become limited. Their awareness on the sovereignty of their custom and intact boundary of their home have been raised by researchers and NGOs since 1980s. In this decade, their awareness affirmed and efforts have been made for legalization of their home as customary region and customary forest through the Malinau District Head Decree. The objective of this study is to document and analyze the process of the Dayak Punan Adu Customary Region and Forest in the context of Indonesian policy and local regulation. It also aims to identify the impact of this process on the livelihood and legacy of Dayak Punan Adu people. Results showed that legalization process is not simple. Already assigned forest areas according to national regulation and already assigned areas for forestry agricultural concessions have limited the customary boundary agreed by the neighboring customary communities. The process has not yet finalized, but several positive impacts already obtained by Dayak Punan Adu people. Among others are planting agarwood trees for marking their customary boundary, building a big wooden house in the forest for patrolling purposes and protecting their customary region and to use the forests traditionally and sustainably as practiced by their ancestors following the main philosophy of Dayak ethnic “bumi adalah ibu dan hutan adalah air susu ibu”. The most remarkable impact is the appreciation and respect from the neighboring customary communities that made Dayak Punan Adu community a role model for mapping and establishing the boundary of neighboring customary communities’ regions and forests.

## Interacting with the Forests: The General Values of the Orang Asli

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As forest dwellers in Peninsular Malaysia, the Orang Asli community has traditionally interacted with the forests based on certain values. These values are embedded in their customary belief which is based on myths, legends and historical events. In this customary belief system, the world view is that certain object (such as tree, river, water source, stone and caves) surrounding human is resided by certain spirits or super natural beings that influence human livelihood. These spirits or super natural beings are known as *makhluk halus* (*roh, penunggu, penjaga dan bunian*). They are sometimes categorized into the “good” beings (i.e. the *moyang*) and “bad” beings (known as *hantu, jemalang, jin*). Despite the adoption of Islam and Christianity by some Orang Asli, the community in general continues to hold on to this customary belief system when interacting with the forests. The Orang Asli villagers have to observe general values so as not to offend the spirits and super natural beings which could bring negative consequences. **Respect** for the spirits and super natural beings is most important prior to conducting forest activities. **Seek permission** is essential before the Orang Asli commences any activity in the forest. **Seek protection** from the spirits and super natural beings ensure safety of Orang Asli while working or walking in the forest. **Observing the taboo and rules** while in the forest has been practised by the Orang Asli community. Be **humble** when entering or working in the forests help to avoid misfortune. They also believe that an Orang Asli might have accidentally offended the spirits and super natural beings which could subsequently bring mishap or sickness. With the assistance of traditional medicine men via rituals and religious ceremonies, offering **apology** to the spirits and super natural beings is critical to resolve the misunderstanding or mistake made. Practise **sustainable use** of resources is the basic value that the Orang Asli community needs to observe to be in line with the expectations of the spirits and super natural beings. The values guide human behavior in interaction with the forest environment and its resources which they are dependent to sustain daily livelihood. These values are expressed in observations, practices as well as rules and regulations which are related to forest management and climate change. However, such observations, practices, rules and regulations are merely orally passed down from generation to generation. It is essential to record such social and cultural expressions which are relevant for modern application.

**Keywords:** Customary beliefs, values, Orang Asli

## Documentation of Folk Culture of Selected Indigenous Communities in the Philippines: An initial assessment

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Traditional knowledge passed-on from one generation to another preserves the national identity and cultural diversity of indigenous communities. It also contributes in sustaining the community's livelihood and conserving their resources. This paper presents some folk culture related to sustainable management of the forests of selected indigenous communities in the Philippines. The paper is based mostly on information gathered from previous documentation study of traditional knowledge related to ecosystem services. The selected tribal communities were the i-Agawa of Cordillera Autonomous Region (CAR) and Talaandigs of Bukidnon.

The i-Agawa tribe gathers annually every 30<sup>th</sup> of September (or the 29<sup>th</sup> of the leap year) to celebrate the Linapet. It signals the start of planting of taro or the sowing of seeds. Specific religious rituals are done for each stage of the agricultural cycle in which specific roles are played by male elders, older women and young men and women. They believe that the forests are haven of the unseen spirits and entities and proper conservation and protection of the forests must be done.

The Talaandig elders continue to teach and transfer cultural beliefs and practices to their descendants through oral and actual means in their own School of Living Traditions. Among the practices being observed by the communities are avoidance of hurting the kalumabata (Philippine eagle) for it can lead to death to a member of the family or the tribe; observance of respect and prudence in the utilization of forest resources inside the territory; consulting nature spirits through rituals like Pangampo, Pamahandi (asking God for treasure to give more harvest) and Igbabasok a ritual performed before planting.

These communities continue to live in isolation from lowlanders and are self-sufficient in their community. Their culture and traditions are reflected in their views on land, rituals, songs and folklores. They regard the land and forests as their heritage that must be properly cared and protected for future generations. The information gathered can be useful in formulating programs and strategies involving these communities to sustainably manage their ecosystems.

**Keywords:** traditional knowledge, sustainable management, Talaandig and i-Agawa

## **A Study on the Relationships Between the Traditional Beliefs and Practices on the Agricultural Land, Forest Resources, River Resources and Conservation by the Dusun People in Tambunan District, Sabah, Malaysia**

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A study on the relationships between the traditional beliefs and practices on the opening of agricultural land, harvesting of forest resources, river resources and their conservation was conducted on the Dusun people in Tambunan District, Sabah, Malaysia. The Dusun people in Tambunan are divided into five sub-ethnics, namely Dusun Tuhauon, Tagahas, Liwan, Gana and Pelupo. The Tuhauon sub ethnic was the first community who lived in Tambunan District around 1600s. The surveys of the traditional beliefs and practices on the opening of land for agricultural, harvesting forest resources and river resources were conducted in December 2015 and January 2016. The objectives of this study were firstly to list down all traditional beliefs and practices regarding opening of land for agricultural, harvesting forest resources and river resources and secondly to examine the relationship between traditional beliefs and practices of the Dusun people in Tambunan on the opening of land for agricultural, harvesting forest resources, river resources and conservation of the resources. Data were taken by interviews among the Dusun Tambunan people and by referring previous studies. Scientific studies in relation to the beliefs and practices then were searched and compared. Results showed that there are six (6) traditional beliefs and practices regarding the opening of land for agricultural, harvesting forest resources and river resources that are being practices in Tambunan which related to the conservation of the resources. These are Tagal Bawang (River Forbidden), Tagal Talun (Forest Forbidden), Moginporing (Harvesting Bamboo Poring), Moginrusap (Collecting herbs), Momuntaras (Opening hill land for rice padi cultivation) and Mananom Parai ( Planting wet rice padi). These beliefs and practices are very important for the Dusun communities in Tambunan and are their own mechanism of traditional systems which have contributed towards conservation and harvesting sustainably of their agricultural lands, forests and rivers resources until present time.

**Keywords:** Traditional beliefs and practices, conservation, Dusun, Tambunan, Sabah, Malaysia.

## Customary Laws and Old Sayings in Relation to Ecosystem Services of Thai People in Viet Nam

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Customary laws and old sayings in relation to ecosystem services have been developed and maintained by Thai People of Viet Nam for ages. Customary laws and old sayings play an important role in ecosystem protection and management and greatly contribute to sustain the livelihood of local communities. Therefore, understanding and using customary laws and old sayings of Thai People are crucial to restore and strengthen the folk culture of Thai People and to protect and manage well the ecosystem of the region. Since a long time ago, Thai People of Vietnam have developed and maintained customary laws, accompanied by rituals to manage worship forest, sacred forest and ghost forest around their village. Those types of forests are very valuable in regard to Thai belief and attitude and the ecological environment protection. By using customary laws and principles created, Thai villages have successfully protected and conserved the sacred forests in the region. By applying customary laws and principles, Thai People also respect and protect well the forbidden forests, including forest of watershed, forest for harvesting and tree possession. The Thai People has contributed to the maintenance of forest cover and the ecological environment of the region. Thai People have also developed and maintained old sayings, of which ecosystem protection is well reflected. By using two sides of sentences to compare a right event/issue, Thai People like to confirm the experiences or truths. Those sides of the Thai language are normally simple and easy to remember, so that old sayings have been greatly restored and disseminated from one generation to another of Thai People. Due to a long war and the economic development of the country, customary laws and old sayings of Thai People have been neglected. In order to restore and maintain folk culture of Thai People, including customary laws and old sayings, to protect and conserve the ecosystems, it is very necessary to further study and documenting customary laws and old sayings of Thai People.

**Keywords:** Customary law, old saying, Thai People

## How to Map the Tangible Resources of Cultural Ecosystem Services in ASEAN Countries?

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Previous survey on ecosystem services conducted at some ASEAN countries showed low number of cultural services as compared to Korea which showed high number of cultural services recognized by local residents. Among four categories of ecosystem services, cultural services provide aesthetic value, recreational value, educational value, spiritual & religious value and heritage value to indigenous peoples. Only cultural services can be detected and recognized with the direct participation and experience at local areas.

Cultural services include intangible resources such as spiritual rites, communal ceremony and funeral ceremonies related to traditional forest knowledge. They also contain tangible resources such as tombs, statue and monuments. Tangible resources like the place, heritage, statue and temple could be easily mapped in a map, which can be utilized to model distributional pattern of cultural services and their extents in local areas.

This study represents a case study of mapping process at Pyeongchang region in Korea, and to suggest how to map the tangible resources of cultural ecosystem services in ASEAN countries. We mapped the cultural services like local story, the history of local names based on the questionnaire to local residents who had lived over 30 years at the studied areas. One statue related to Monument to Filial Piety, temple, peculiar rocks symbolizing man, village shrine and historic sites were excavated and mapped at the digital map in scale of 25,000. This information could be utilized to select eco-tour courses and rebuild local community to restore village rites barely existing in local areas.

In ASEAN countries, many indigenous people have maintained diverse and dynamic cultural activity and ceremony, these resources could be analyzed and comprehended with eco-tourism, eco-friendly travel and fare trade travel.

Therefore, we suggest how to map the tangible resources at studied areas, and we can provide practical way to conserve local resources and community in a sustainable way that transcended from mother of nature itself.

**Keywords:** Spatial distribution of cultural components, mapping, local community.

## Current Status and Future Direction of TFK Research in ASEAN countries

**Chan Ryul PARK<sup>1,2\*</sup>, Kyongha KIM<sup>1,2</sup> and Jae Hyoung CHO<sup>1</sup>**

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The Paris Agreement on 12nd December, 2015 at COP21 meeting will change modern society to become a practically environmental-friendly economy. One hundred ninety five countries had reached an agreement, and this international movement will affect the economy and socio-culture system in Asia. Indigenous peoples (IPs) at high altitude could provide practical solution against climate change, however their lands can be shrunken due to global warming and over use of resources by the world community. Two thirds of the world's indigenous peoples live in Asia with more than 2,000 civilizations and languages. They include groups that are often referred to as *tribal peoples*, *hill tribes*, *scheduled tribes*, *janajati*, *orang asli*, *masyarakat adat*, *adivasis*, *ethnic minorities* or *nationalities*. Irrespective of their legal status or the terminology used, many indigenous peoples of Asia experience non recognition of their cultural identity, exclusion and marginalization<sup>1</sup>.

In 2015, most indigenous peoples recognized that they possessed average 8.7 provisioning services, 6.0 regulating services, 2.4 cultural services and 3.7 supporting services from forests (Table 1, Figure 1). Korean and Japan possess low number of provisioning services from forests, however two countries have endeavored to develop and use cultural services such as eco-tourism and local festival. So, 2015 data on TFK for ES can be important to characterize the IP of Asia. WHAT IS ES?

ACTFOK (Asian Center for Traditional Forest Knowledge) was established at Hongneung campus of NIFoS (National Institute of Forest Science) in 2012. ACTFOK has supported workshops and conferences since 2013 to activate regional scientific workshop and conserve indigenous peoples who have been transcending important regional wisdom and knowledge in Asia region.

ACTFOK will support TFK workshop and conference in 2019 to develop Asian Initiative related to TFK. In 2016, Folk culture including proverbs, old sayings and community rules would be collected and analyzed. In 2017, based on the cultural services, diverse methods for application of TFK in local economy would be addressed. In 2018, excavation of examples on the regional resilience of local people against natural disaster and socio-economic change will be examined. In 2019, an ASIAN INITIATIVE of TFK (AIT) will be suggested.

**Table 1.** Number of four services at studied indigenous peoples

Country (IP or region name)	Provisioning	Regulating	Cultural	Supporting
Cambodia (Salavisay, Thnout)	11	4	3	2
Indonesia 1 (Hegarmanah)	8	6	3	4
Indonesia 2 (Cempedak)	6	8	2	2
Malaysia Penn (Orang Asli)	10	7	3	5
Malaysia Saba (Tudan, Timbou)	10	7	0	5
Philippines (Bago, Manupali)	5	5	3	3
Vietnam (Nhop, Kuoi Tang)	11	5	3	5
Average±S.E	8.7±0.99	6.0±0.58	2.4±0.46	3.7±0.56

<sup>1</sup> UN A/HRC/24/41, Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya

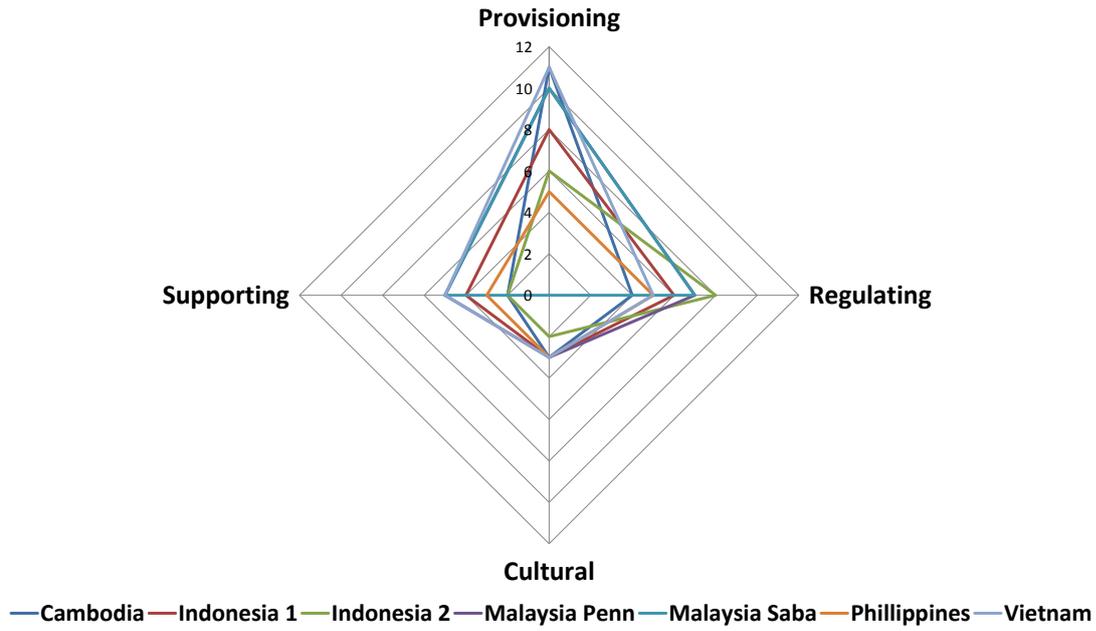


Fig. 1. Number of ecosystem services at study areas

## Protocol to Survey Proverbs and Old Sayings Related To Climate Change and Forest Management in ASEAN Countries

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There are 260 million indigenous people in Asia and they constitute more than 2,000 civilizations and languages (UN, 2014). Ethnic groups live in diverse environment over the continent. Some live in high mountains, some live in forests, some live along rivers, others live in coastal regions. They have flourished their own culture derived from their natural environment.

When their ancestors had interacted with nature, they had observed it closely and learned how to manage their resources and deal with severe situations such as climatic disturbances. Those knowledges which have been handed down to next generations, is so-called Traditional ecological knowledge (TEK), defined as “a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment.” by Berkes et al.(2000).

TEK of indigenous people are connected to ecosystem stewardship. Hakka’s tradition that believe fengshui forest and tomb forest contributed to Changting landscape restoration in China (Zhang et al. 2015), and traditional weather forecasting enables sustainable agroforestry in Ilocos Norte province, Philippines (Galacgac et al. 2009). UN (2014) also stated that indigenous people can contribute their countries with their traditional knowledge of effective use and preservation of the environment. They emphasized indigenous knowledge can inspire world in the aspect of climate change and disaster risk reduction.

Indigenous people’s traditional knowledge is usually transmitted by tradition. Mason(2000) indicated that oral tradition is not trustworthy as it depends on memory and verbal transmission. However, proverbs and old sayings have validity by its nature. Proverbs and old sayings are expressions of basic truth or practical percept that based on common sense or cultural experiences. This oral traditions transmitted to next generations from ancestors can reflect their TEK, because proverbs and old sayings have same properties with TEK which is based on empirical observations and accumulation of facts by trial-and-error (Berkes, 1993). So that proverbs and old sayings are an effective way to learn TEK of indigenous people. Furthermore, proverbs and old sayings are traditional knowledge themselves and also can be included in cultural services that nature provides.

Kurien J.(1998) showed how proverbs can contain the TEK. He presented five proverb of Asian coastal communities, which contain the idea of pursuing ecosystem sustainability. In Korea, some researchers have attempted to collect proverbs to find TEK (Lee et al., 2012). However, in worldwide, there is few research which uses proverbs and old sayings as means of TEK research.

Therefore, proverbs and old sayings can be measures to explore traditional knowledge and we can learn from it how to solve the problems of modern society by looking into proverbs and old sayings of indigenous people and how they recognize it. Through this research, we are looking forward to identifying the common value of Asian culture, further, Asian knowledge system.

## Methodology

### 1. Gathering Proverbs and Old sayings of Indigenous peoples

Interview the elderly in each kampong to gather proverbs and old sayings following the field note shown below.

Document the proverbs and old sayings in native language, and translate into official language and English. It is needed to make database.

Write down the literary meaning in English in 2-1) and put keywords of the proverbs and old sayings into 2-2). For example, when the proverb is “tree dies when it is moved, man lives when he is moved.” The subject could be tree and man.

Classify the proverbs and old sayings into categories 2-3). For the Korean proverb “tree dies when it is moved, man lives when he is moved.”, It is classified Plants, and principles for management. Check the spatial range of the proverb or old saying in 3. If it is only by a person or a family, it is personnel level. When it is common in a village or community, it is community level, and if it is known to many communities, it is regional level and to whole nation, it is national level.

Explain the TEK which implicated in the proverbs or old sayings in 4-1) and applicability to modern society in 4-2).

#### Field Note

##### 1. Proverbs (Old Sayings)

(In native language) 제비가 낮게 날면 비가 온다

(In official language)

(In English) If swallows fly low, it will rain

##### 2. Meanings

1) Meaning People believed if swallows fly low, .it will rain..

2) Subjects Swallow , rain

##### 3) Category :

Weather / Seasonal change / Natural phenomena / Plants / Animals / Ecosystem / Life  
Observation of nature / principles for management

##### 3. Usage level

Where / Whom did you learn this from? In school

Check the usage level  personnel  community  regional  national

##### 4. Usage

###### 1) Metaphor

When the air pressure goes down, insects fly low, so that swallows also fly low.

###### 2) Applicability to modern society

It is hard to see swallow in cities in Korea.

## 2. Recognition Survey

We show the example of the recognition survey questionnaire (adopted and modified from Brown et al., 2011) below. This questionnaire aims to understand 1) if respondents know the proverb or old saying, 2) and if and how they recognize it. If they know it, they can answer the meaning correctly in Question Nr.1). In Question Nr.2), respondents are asked to answer they feel the gap between the truth in the proverb and the present.

This survey is designed to see which proverbs or sayings you recognize. People know different sayings depending on where they grew up, how old they are, and many other reasons. Some people may recognize very few of the sayings below, and some may recognize many of them.

### Instructions

1. Please put an X next to proverbs that you have heard before.
2. It's okay if a word or two is different from the way you have heard the proverb. For example, if you have heard "Don't bite more than you can chew" then you can check off "Never bite off more than you can chew."
3. Don't guess the meaning of sayings that are unfamiliar. Only mark proverbs you have heard before.
4. If you know the meaning of the proverb, write down meanings below.
5. If you agree with the meaning, check yes. If not, check no and please write down reasons.

1. 1)  When swallows fly low, rain comes.

means :

2) Do you agree with it?

yes  no (why? \_\_\_\_\_ )

2. 1)  Rice ripen well when the summer is sweltering.

means :

2) Do you agree with it?

yes  no (why? \_\_\_\_\_ )

3. 1)  If it rains often in spring, the hand of women becomes bigger.

means :

2) Do you agree with it?

yes  no (why? \_\_\_\_\_ )

4. 1)  Trees with deep roots sustains drought.

means :

2) Do you agree with it?

yes  no (why? \_\_\_\_\_ )

5. 1)  .....

means :

2) Do you agree with it?

yes  no (why? \_\_\_\_\_ )

### Expected results & analysis

Differences or common ground of knowledge system in Asian countries can be discovered by comparing proverbs and old sayings among ethnic groups or nations. For example, two ethnic groups with similar geographical environments have different sight of managing their environment, or there are analogous ideas among all ASEAN countries.

In addition, proverbs and old sayings could be no more suitable in these days due to climate change and environmental destructions. However, looking inside that point we might be able to figure out where we are now.

## References

- Berkes, F. (1993). Traditional ecological knowledge in perspective. *Traditional ecological knowledge: Concepts and cases*, 1-9.
- Brown, J., & Wright-Harp, W. (2011). Cultural and generational factors influencing proverb recognition. *Contemporary Issues in Communication Sciences and Disorders (CICSD)*, 38, 111-122.
- Berkes, F., Colding, J., & Folke, C. (2000). Rediscovery of traditional ecological knowledge as adaptive management. *Traditional Ecological Knowledge*, 10(5), 1251–1262.
- Galacgac, E. S., & Balisacan, C. M. (2009). Traditional weather forecasting for sustainable agroforestry practices in Ilocos Norte Province, Philippines. *Forest Ecology and Management*, 257(10), 2044–2053.
- Kurien, J. (1998). Traditional ecological knowledge and ecosystem sustainability: new meaning to Asian coastal proverbs. *Ecological Applications*, 8(sp1), S2–S5.
- Lee, D., Kim, G., Nam, M. (2012). Traditional management practices of rainwater at various spatial scales in Korea. *The 3<sup>rd</sup> International Conference on Rainwater harvesting and Management*, Goseong, Gyungnam, Korea, 20-24 May 2012
- Mason, R. J (2000). Archaeology and native North American oral traditions. *American Antiquity*, 65(2), 239-266.
- United Nations (2014). Indigenous peoples in the Asian region. *Thirteenth Session of the UN Permanent Forum on Indigenous Issues*, 15 May 2014
- Zhang, M., Liu, J., Liu B., & Lin W. (2015). Lamentation and psalms from landscapes: the role of Hakka traditions to the forest landscape restoration in Changting, China. *The 8<sup>th</sup> International Conference on Traditional Forest Knowledge and Culture in Asia*, Nanjing, China, 63-67

## How to Map the Tangible Resources of Cultural Ecosystem Services in ASEAN Countries?

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The ecosystem provides necessary and beneficial services for human and ecosystem well-being. For example, forest ecosystems supply timber and wood fiber, regulate the climate condition by absorption of carbon dioxide, and they provide and regulate water resources, attract people for recreation and tourism. The types of benefits that people obtain from ecosystems are known as 'ecosystem services' (Millennium Ecosystem Assessment [MEA], 2003).

Among four ecosystem services categories (provisioning, regulating, supporting, cultural), cultural services usually are intangible because they are embodied by perception and recognition of local people. People who receive these services can feel from their own experiences, and they build-up their perception. For this reason, we can get the information about cultural services even not in the present, and evaluate their value from the past.

Previous survey on ecosystem services conducted at some ASEAN countries showed that local peoples had recognized a few kinds of CES at their local areas, however, ASEAN countries do possess diverse cultural services and they have been survived and transcended important TFK in their livelihood and cultural activities and ceremonies (TEEB, 2010). Therefore, it is very valuable to try to excavate their own cultural services and understand their characteristics such as behind stories, related contents and location.

In this context, the aim of this study is mapping the cultural services for better understanding their usage. It could be an effective way for preserving and enhancing their value to figure out the spatial distribution of cultural services. Therefore, we are trying to survey tangible resources of cultural services at first because they are much easier to mark those points on the map. Mapping procedure will document questionnaire from residents have been living over 30 years.

These resources maps of cultural services are expected to analyze the distributional pattern of cultural services and their effects to local community. In addition, resources maps can provide useful information for eco-tourism, eco-friendly travel and fare trade travel in near future.

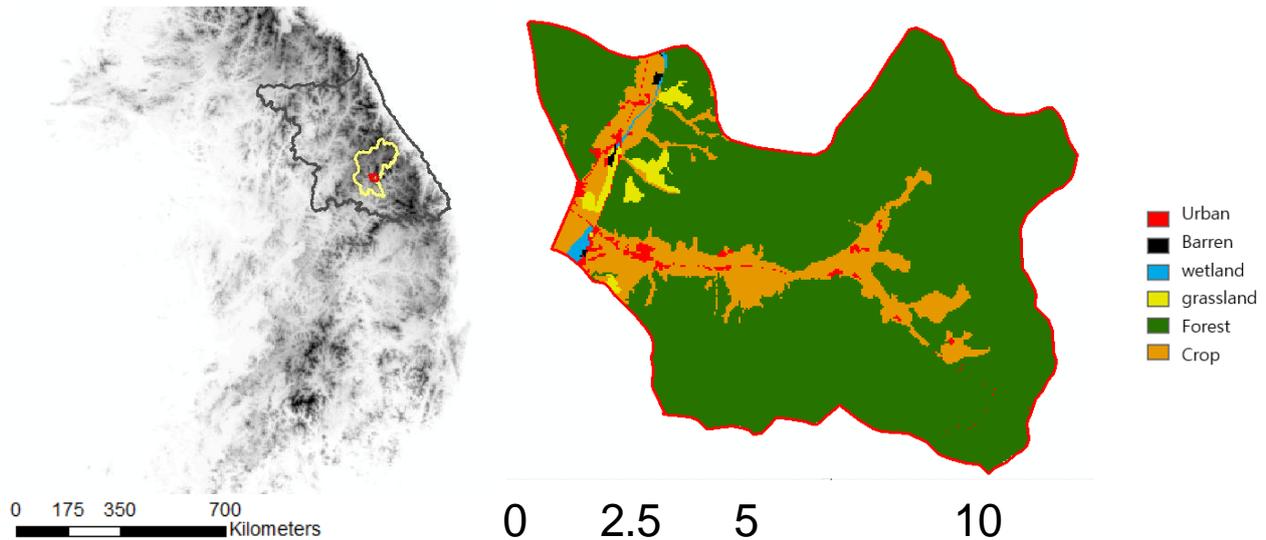
### Study Area and Methodology

#### *Study Area*

The study area is Pyeongchang region of Korea. It is in the northeast part, Gangwon-province (Figure 1). We specified the focus area with Haanmi-ri to perform the questionnaire. This area is around 40km<sup>2</sup>(4,000ha), and 1,407 residents are living. Most of land use is forest and crop land, and urban area are formed along the crop land (Figure 2).

Especially, the reason why we focus this area is; first, the area has many kinds of cultural resources we already know that from related papers and data. Secondly, the residents of this area are usually more than 45 ages, so we expected that they have various experiences for their region.

For this reason, we tried to find out the inherent stories and valuable contents of cultural services from their experiences and perception.



**Figure 1.** Study area

**Figure 2.** Land cover map of study area

#### *Relevant Literature Reviews*

First of all, we searched relevant literature such as regional culture brochure, books, and published papers from the internet and culture research center of Pyeongchang region. Through this process, we could get the primary information of this area like previous name of the places and the behind stories of famous attractions currently.

#### *Questionnaire Survey & Interview*

Secondly, we conducted the questionnaire survey. This is for figuring out valuable cultural ecosystem service resources in local community perception we couldn't catch from previous step.

The questionnaire asked their forest usage, recognition and perception of cultural tangible resources (Appendix 1). First part of the questionnaire was consisted of questions for their forest usage. This is for checking local residents' intimacy with forest or mountainous area around them. Then, we surveyed what they already know or hear culturally or historically famous tangible resources (temples, statues, mysterious place, beautiful scenery, village shrine) and their location.

The survey did in September of 2015, and we interviewed 6 residents who have been living over 30 years in this area. Although the number of 6 interviewees is not so many, they were very familiar with their village and the area around. Besides, they have lots of experiences during their residence and deep knowledge about the environment of the past. The in depth interview was done during more than 1 hour in order to draw memorable responses as smoothly as possible.

#### *Mapping*

Next, historical and cultural sites or valuable places researched in previous process were excavated and mapped at the digital map on the scale of 100,000. We checked the specific location with GPS, and visited directly. And also, we cross matched with aerial photograph for the accuracy. In short, all steps to show the spatial distribution of cultural ecosystem service resources are as follow (Table 1).

**Table 1.** 3 Steps to map tangible resources of cultural ecosystem service

1. Relevant literature reviews	<ul style="list-style-type: none"> <li>• culture research center of the region</li> <li>- regional culture brochure</li> <li>- books, published papers(regional research)</li> </ul>
2. Questionnaire survey	<ul style="list-style-type: none"> <li>• over 30 years of residence period (minimum 20 years)</li> <li>• Forest usage</li> <li>• About cultural tangible resources...               <ul style="list-style-type: none"> <li>- experiences to do directly/ to hear indirectly</li> <li>- recognition, perception</li> <li>- location (with map)</li> </ul> </li> </ul>
3. Mapping	<ul style="list-style-type: none"> <li>• checking the location with GPS</li> <li>• marking the location on a 100,000 scale map (depending on the area)</li> <li>• cross-match with aerial photograph</li> <li>• analyzing the distribution &amp; pattern of resources</li> </ul>

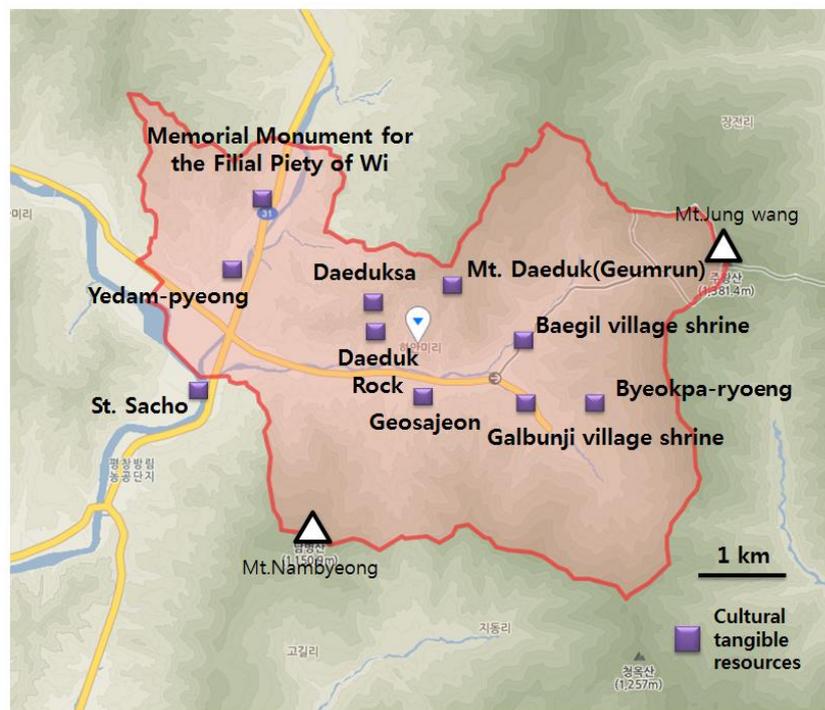
## Results and Discussion

### Questionnaire Survey Response – forest usage

The response of questionnaire first part, forest usage, was that they usually use forest or mountainous area as farming field of gathering edible greens. While visitors consider this area is good for sports (climbing, mountain bike), residents use it for their living. Thus, they also showed the opinion to use it as daily and informal way like taking a rest while walking.

### Cultural Tangible Resources Map

Through the responses of questionnaire and interview, we could excavate communal cultural tangible resources such as village shrines, temples, historical places and monuments(Figure 2).



**Figure 2.** The map of cultural tangible resources

There were the monument for memory the filial piety(the filial piety of Wi), and historical places during Japanese invasion(Yedam-pyeong). In addition, we could find out special praying places, the village shrine, they pray to trees and mountains for their health(Baegil, Galbunji village shrine).

These resources are considered as visible reflection of the culture, so it has many historical stories in the past and the main thought of resident. Therefore, it is possible to analyze the cultural extent and the usefulness of them for regional enhancement if we list up and map the location of resources.

In this context, we suggest how to survey and list up the information needed for mapping like (Appendix 2). This framework can get the primary information of cultural resources, and also can identify the perception of residents in cultural resources. As a result, we can provide the practical way to conserve local resources and community in a sustainable way that transcended from the nature.

In conclusion, this mapping procedure is very meaningful because we need to understand the spatial distribution of cultural resources for the management and tour-course decision making.

## References

- Millennium Ecosystem Assessment, 2003, Ecosystems and human well-being: A framework for assessment, Washington, DC : Island Press.
- TEEB, 2010, The economics of ecosystems and biodiversity: mainstreaming the economics of nature: a synthesis of the approach, conclusions and recommendations of TEEB.

## Appendix 1. Questionnaire



# Cultural Ecosystem Service Resources Questionnaire

Thank you for your interest in this questionnaire about “Cultural Ecosystem Service Resources”. We are surveying that what kind of cultural ecosystem service resources local residents know and how they recognize cultural resources as cultural ecosystem services of their region.

‘Cultural Ecosystem Services’ are cultural benefits people obtain from the ecosystem. For example, they are psychological comfort or emotional fulfillment through recreational activities and aesthetic travel in the nature.

Please feel free to fill this questionnaire sheets out as you think. Your cautious answer will be help us to better understand local residents’ perception of regional cultural resources.

2015. 09



### Forest Usage

Q1> How do you usually use forest (or mountainous area) around your village?

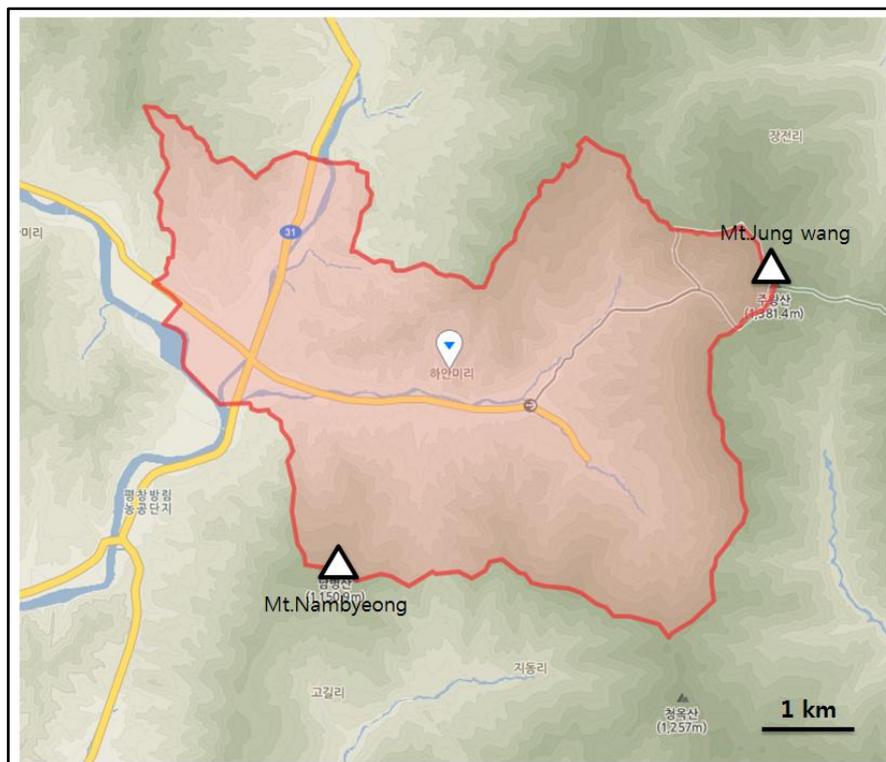
- ① Rice paddy or farming field (crop) ② Walking (enjoying the scenery) ③ Sports (mountain bike, climbing) ④ Gathering edible greens ⑤ Forest education (green school) ⑥ Spiritual space (prayer) ⑦ rarely use

## Recognition

Q2> What do you know or hear about cultural (or historical) places such as temples, village shrines, curious rocks, rivers and statues related to cultural ecosystem services? Have you ever heard about them when you were young? Or are there any regional places where famous for the tourist attraction?

## Location

Q2-1> Could you please draw the points on the map below if you know where they are?



## Perception

Q3> Do you think it is very important to preserve these tangible resources as cultural ecosystem services?

- Very important, no more development
- Important, but need development for local economic enhancement
- Not really important, need more development
- I have no idea

## Socio-demographic Information

1. Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female
2. Age	<input type="checkbox"/> 30-40 <input type="checkbox"/> 50-60 <input type="checkbox"/> more than 60
3. Educational level	<input type="checkbox"/> did not finish middle school <input type="checkbox"/> middle school graduate <input type="checkbox"/> high school diploma <input type="checkbox"/> college graduate
4. Residence	Gangwon-do
5. The length of residence	_____ years
6. Occupation	<input type="checkbox"/> agriculture <input type="checkbox"/> highland agriculture <input type="checkbox"/> livestock <input type="checkbox"/> housewife <input type="checkbox"/> unemployed
7. Household Income(month)	<input type="checkbox"/> under \$1,000 <input type="checkbox"/> \$1,000-\$2,000 <input type="checkbox"/> \$2,000-\$3,000 <input type="checkbox"/> \$3,000-\$4,000 <input type="checkbox"/> over \$4,000

☘ Thank you very much for your cooperation! ☘

## Appendix 2. The list of cultural tangible resources

Cultural tangible resources	Type	Contents	Perception					Location (GPS)	Possession	Religion
			Conservation		↔	Active use				
		Stories								
1. Yedam-pyeong	Historical place	When during the Japanese invasion, and piled up the number of high stone walls waegun killed it was known as "Gotham flat. Who wrote that the former 'High (古)' 'old dampyeong', flat and currently yedam has left a trail of stone walls. He is currently in use by improving rice fields.	1	2	3	4	5	128.43°E/37.45°N	community	X
2. Memorial mounument for the Fillial Piety of Wi	Monument		1	2	3	4	5			
3. St. Sacho	Historical place		1	2	3	4	5			
4. Daeduksa	Temple		1	2	3	4	5			
5. Daeduk rock	Curious rock		1	2	3	4	5			
6. Geosajeon	Historical place		1	2	3	4	5			
7. Galbunji village shrine	Village shrine		1	2	3	4	5			
8. Baegil village shrine	Village shrine		1	2	3	4	5			
9. Byeokpa-ryeong	Historical place		1	2	3	4	5			