

Capacity Building Workshop on Nature-Culture Linkages in Heritage Conservation, Asia and the Pacific 2018



THIRD WORKSHOP REPORT

SEPTEMBER 21 - OCTOBER 1, 2018 UNIVERSITY OF TSUKUBA, TSUKUBA, JAPAN

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Citation: UNESCO Chair on Nature-Culture Linkages in Heritage Conservation (2019). Capacity Building Workshop on Nature-Culture Linkages in Heritage Conservation, Asia and the Pacific. Disasters and Resilience. Third Workshop Report. Tsukuba, Japan: University of Tsukuba. 76 pp.

Prepared and edited by: Maya Ishizawa Editorial assistance: Claudia Uribe Chinen

Photo credits:

Module 1 International Symposium by Li Xuanyu Module 2, 3 and 4 by Claudia Uribe Chinen

Available from:

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DISASTERS AND RESILIENCE 災害とレジリエンス

THIRD WORKSHOP REPORT

Organized by

The UNESCO Chair on Nature-Culture Linkages in Heritage Conservation University of Tsukuba

In collaboration with

UNESCO World Heritage Centre International Union for Conservation of Nature (IUCN) International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) International Council of Monuments and Sites (ICOMOS)

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List of Acronyms

ACA	Agency for Cultural Affairs (Ministry of Education, Culture, Sports, Science and Technology, Japan)
BR	Biosphere Reserve
CBD	Convention on Biological Diversity
CBWNCL	Capacity Building Workshop on Nature-Culture Linkages
CREATE	Climate Resilience Evaluation for Adaptation Through Empowerment (IUCN)
DRM	Disaster Risk Management
Eco-DRR	Eco-Disaster Risk Reduction (IUCN)
GIAHS	Globally Important Agricultural Heritage Systems (UN FAO)
HUL	Historic Urban Landscape (UNESCO)
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultura Property
ICH	Intangible Cultural Heritage
ICOMOS	International Council on Monuments and Sites
ICORP	International Scientific Committee on Risk Preparedness (ICOMOS)
IUCN	International Union for Conservation of Nature
MAFF	Ministry of Agriculture, Forestry and Fishery, Japan
MEXT	Ministry of Education, Culture, Sports, Science and Technology, Japan
MIDAS	Multi-Internationally Designated Areas
MLIT	Ministry of Land, Infrastructure, Transport and Tourism, Japan
MoE	Ministry of the Environment, Japan
OUV	Outstanding Universal Value (UNESCO World Heritage Convention)
RLE	Red List of Ecosystems (IUCN)
RRF	Rapid Response Facility
SDG	Sustainable Development Goal (UN Agenda 2030)
SPs	State Parties
UN	United Nations
UNDRR	United Nations Office for Disaster Risk Reduction (formerly UNISDR)
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFAO	United Nations Food and Agriculture Organization
UNISDR	United Nations International Strategy for Disaster Reduction
WHLP	World Heritage Leadership Programme

EXECUTIVE SUMMARY

The Third Capacity Building Workshop on Nature-Culture Linkages in Heritage Conservation in Asia and the Pacific (CBWNCL 2018) took place in Tsukuba, Japan, from September 21 to October 1, 2018. The workshop was organized by the UNESCO Chair on Nature-Culture Linkages in Heritage Conservation at the University of Tsukuba, in collaboration with the UNESCO World Heritage Centre, the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), the International Union for the Conservation of Nature and Natural Resources (IUCN), and the International Council on Monuments and Sites (ICOMOS).

This workshop, themed Disasters and Resilience, was the third in a series programmed for the period of 2016-2019. The aim is to contribute to the World Heritage Capacity Building Programme in promoting and developing skills of young and mid-career heritage practitioners of the Asia and the Pacific region, enabling them to deal with the interlinkages between nature and culture in heritage sites.

The workshop was divided into four modules:

- Module 1: International Symposium
- Module 2: Understanding Nature-Culture Linkages in the Context of Disasters and Resilience
- Module 3: Management, Implementation and Governance in Disasters and Resilience
- Module 4: Reflection on Theory and Practice

CBWNCL 2018 was inaugurated with Module 1, which consisted of the 3rd International Symposium on Nature-Culture Linkages in Heritage Conservation held on September 21, at the Tsukuba International Congress Centre and in the framework of the Tsukuba Global Science Week 2018, which was organized by the University of Tsukuba with the overall theme of 'Driving Sustainable Development.' In this thematic context, the CBWNCL 2018 symposium contributed with presentations and discussions focused on how to deal with natural and human-led hazards, in order to prevent and recover from disasters by integrating natural and cultural heritage into disaster risk prevention and recovery processes. The symposium gathered international experts, three of whom represented partner organizations: Ms. Radhika Murti from IUCN, Mr. Joseph King from ICCROM, and Dr. Rohit Jigyasu from ICOMOS. A video message was sent from the Director of the UNESCO World Heritage Centre and Division of Heritage, Dr. Mechtild Rössler. Key promoters of the nature-culture approach in the World Heritage system, and close collaborators of the CBWNCL, joined the roundtable as discussants: Dr. Gamini Wijesuriya, former staff at ICCROM, and Ms. Kristal Buckley, a World Heritage Advisor for ICOMOS and lecturer at Deakin University. Representatives of the Japanese Government presented the situation in Japan. First, Mr. Naohisa Okuda, from the Ministry of the Environment, explained the current initiatives and efforts in the recovery process in the Tohoku region, which was affected by the Great East Japan Earthquake and Tsunami. Following, Ms. Kumiko Shimotsuma, from the Agency for Cultural Affairs, talked about the integration of disaster risk management in the protection and conservation of Japan's cultural heritage. Fifteen participants of the CBWNCL 2018, who attended the meeting and took part in the discussion, were heritage practitioners from the culture and nature sectors, coming from Australia, Bangladesh, China, India, Indonesia, Malaysia, Philippines, Sri Lanka, Vietnam, Hawaii (USA), Kenya, Chile, and Russia. Four students of the University of Tsukuba, from four different countries (DR Congo, Ethiopia, Jamaica, and Sudan), took part in the process as observers.

During the panel discussion and roundtable, speakers agreed that nature and culture sectors tend to work separately. Some of them highlighted the need to change the mindset in order to develop comprehensive approaches to heritage conservation and more intersectoral collaboration. It was pointed out that chances

to share ideas, like in the current symposium, have increased and that awareness raising on nature-culture linkages has been effective throughout the last years, with the UNESCO Chair and the CBWNCL as one of its vectors. However, the current challenge lies in finding a way to implement this approach, which methodologies, strategies, and concrete proposals which can make the concept more operational.

The participants also reaffirmed the need to develop synergies and cooperation between sectors, in the heritage conservation context in general, and particularly in the case of disasters prevention, mitigation, response, and post-disasters recovery. It was pointed out that any disaster-related project needs the involvement of different sectors, yet, intersectoral collaboration is complex and the need of immediate response to disasters does not allow further efforts. Moreover, it was explained how during a disaster response, the priority is placed on survivors, and therefore, heritage, both natural and cultural, come in second place. Nevertheless, the discussions clarified the relevance of integrating a nature-culture approach for disaster risk management and for building resilience.

Japan was acknowledged as a champion in this endeavor and as a good example for Asia, the Pacific region, and beyond. The representatives of the Japanese governmental institutions showed how disaster risk management has been integrated into the cultural heritage conservation system as well as how nature is being used as a solution for disaster risk prevention, post-disaster recovery, and building resilience to future disasters. They asserted that working at the local level with municipalities and communities, in context-specific situations, enables collaboration.

It was emphasized that interdisciplinary and crossdisciplinarity partnerships need to be used when looking at disasters and resilience. Additionally, it was pointed out that the importance of natural ecosystems for the resilience of inhabited landscapes, and therefore nature conservation efforts, needs to be integrated as part of urban planning. Landscape conservation and urban planning are essential instruments in the building of resilience and preventing disasters.

Moreover, it was clarified that intangible cultural heritage is also impacted by disasters and that it plays a fundamental role in the post-disaster recovery as an instrument of resilience for communities, since identity and cultural heritage sustain the cohesion of communities when facing disasters. The importance of capacity building and education was highlighted, especially when confronting challenges such as climate change and unpredictable natural hazards. It was mentioned that educational systems may be divorced from reality; therefore, changes need to start in early education systems, as well, to build up awareness and openness to the relationships between nature, culture, and people.

The top-down nature of the implementation processes of the World Heritage Convention was pointed out as a constraint to the implementation of people-centered approaches and sustainable development perspectives. In response to this concern, the need to explore resilience from the bottom-up was highlighted. Speakers agreed that efforts to involve all stakeholders, especially local communities, should be continued. Community-based conservation and management need to be promoted. Traditional knowledge and indigenous peoples need to be respected and integrated into the disaster-prevention strategies.

Main challenges that were noted are climate change and rapid and unplanned urbanization; hence, the importance of adaptation and mitigation were stressed. It was highlighted that World Heritage sites serve as models and should continue their role as test grounds for sustainable development. It was suggested that disaster risk management should be included in management plans, as part of daily maintenance and monitoring. It was noted that more work needs to be done in the collaboration and sharing of experiences between different Conventions and Programs that work with the conservation of natural and cultural heritage, such as the UNESCO Man and the Biosphere Programme, the UNESCO Convention on the Safeguarding of Intangible Cultural Heritage, the Convention on Biological Diversity, and the UNESCO Geoparks network, among others.

Yet, some questions remained open, in particular those regarding the implementation of a cultural perspective cross-cutting the Sustainable Development Goals of the UN Agenda 2030. The need to explore on qualitative data and qualitative indicators for culture was stressed.

Module 2 consisted of three days of intensive lectures, group discussions, and participants' case study presentations. The first day's lecture dealt with the evolution of the conservation practice, from the nature-culture divide towards a more integrated perspective, considering nature-culture linkages, and people-centered approaches to conservation, as well as a landscape approach to heritage. The second lecture focused on the World Heritage Convention and its processes of implementation. The second day focused on disaster prevention and post-disaster recovery, with lectures from the natural and cultural sectors perspectives, covering the Ecosystems-Based Approach to Disaster Risk Reduction and Disaster Risk Management for Cultural Heritage. During the third day, the focus was on the Japanese experience on disaster risk management and post-disaster recovery, as well as an introduction to the field visit. During the three afternoon sessions, fifteen case studies were presented: Eight World Heritage sites, two sites on the tentative list in their respective countries, one Biosphere Reserve, one UNESCO Geopark, and four landscapes protected at the national level were examined and discussed. The case studies reflected the diversity of overlapping legal systems and designations, landscapes' vulnerabilities to a variety of hazards, mostly natural, and clarified that nature-culture linkages are present and need to be acknowledged for better conservation and disaster risk management.

Module 3 lasted for four days and the participants visited three sites in the Tohoku Region which were affected by the Great East Japan Earthquake and Tsunami in March 2011: Hiraizumi – Temples, Gardens, and Archaeological sites Representing the Buddhist Pure Land, a World Heritage since 2011, the Sanriku Fukko Reconstruction National Park, the area of Minami-Sanriku Town, and Matsushima, Place of Scenic Beauty. In Hiraizumi participants learned about the conservation of important Japanese cultural heritage properties, such as temples and gardens, as well as how they are prepared for hazards and how reconstruction is undertaken – with an example of a garden rock. In Minami-Sanriku Town, participants learned about the concept and implementation of the Sanriku Fukko Reconstruction National Park and how the municipality is working with the Ministry of Environment to develop strategies for the recovery of natural ecosystems - with the inscription of the Shizugawa Bay as a Ramsar site, as an example - and the development of eco-tourism. The participants also had the chance to listen to testimonies from the local inhabitants who experienced the tsunami and lead initiatives for the recovery of the town using natural and cultural heritage. Finally, in Matsushima, participants learned how the area was affected by the tsunami and how it is recovering. From an archaeological perspective, participants learned about the prehistoric occupation of this area and how prehistoric people living in Japan settled in safer places. Moreover, they learned about the problems of relocating fishermen villages and the conservation of the landscape views, as well as the issues entailed by the construction of concrete walls along the sea side, as an immediate reaction to tsunami. From all these visits, participants were able to have a better understanding of the importance of the local community's involvement in preparation for, and the recovery processes after, disasters. Through the testimonies, workshop participants recognized the role of natural and cultural heritage in the resilience of communities affected by these experiences.

Module 4 comprised of two days of reflection on the theory and practice gained during the workshop. Workshop participants worked in groups, tasked with mapping the values and interrelations between nature and culture in the sites visited as well as assess the management of the sites, by identifying the lessons learned and elaborating on recommendations. Additionally, participants were asked to reflect on their own case studies and present one lesson learned that they would like to apply in their home country. Participants prepared group presentations from which many interesting discussions arose regarding their different understandings of the same sites. Participants highlighted the role of locals in the recovery process and agreed that the Japanese experience was exemplary for their own countries.

As concluding remarks, participants acknowledged the importance of sharing and working with practitioners from different disciplines and sectors of the heritage practice, which led them to think beyond their knowledge and in a more holistic manner. They recognized that the work in interdisciplinary groups enriched their perspective of heritage and allowed them to learn from other sectors involved in the conservation practice. Most importantly, they understood the need of involving all stakeholders in the decision-making processes, having learned from the Japanese local communities that nature and culture are not divided when facing disasters, such as earthquakes or tsunami. The experiences in Japan clarified that conserving heritage successfully requires coordination beyond sectors and at different levels of governance. It became evident that heritage conservation needs to be integrated with other areas involved in disaster

prevention, post-disaster recovery, and reconstruction efforts, as well as the need for it to be enforced by local management agendas. Moreover, participants came to understand that nature-culture linkages are necessary for a comprehensive conservation of heritage sites.



INTRODUCTION

The Capacity Building Workshop on Nature-Culture Linkages in Heritage Conservation in Asia and the Pacific focused on the theme of "Disasters and Resilience" was organized by the UNESCO Chair on Nature-Culture Linkages at the University of Tsukuba, Japan, in collaboration with the UNESCO World Heritage Centre, ICCROM, IUCN, and ICOMOS. This workshop was the third in a series of four workshops, running from 2016 to 2019. It gathered fifteen heritage practitioners from both the culture and nature sectors from Asia and the Pacific, Australia, Bangladesh, Chile, China, Hawaii (US), India, Indonesia, Kenya, Malaysia, Philippines, Russia, Sri Lanka, and Vietnam, as well as four students from the Certificate Programme on Nature Conservation at the University of Tsukuba, from the Democratic Republic of Congo, Ethiopia, Jamaica and Sudan, who took part in the process as observers.

In the following report, the activities developed during the workshop have been compiled, structured by modules. First, the purpose, objectives, and content of the CBWNCL, as well as the theme of the CBWNCL 2018 are introduced.

In **Module 1: International Symposium**, the keynotes and debates are reported. Five international experts participated: representatives from the partner organizations, the IUCN, ICCROM, and ICOMOS, as well as two representatives of the Japanese Government, one from the Ministry of the Environment and another from the Agency for Cultural Affairs. The roundtable discussion is presented, including the guest speakers and participants' reflections during the symposium debates, regarding the challenges faced in disasters within the region and globally as well as the need to build up the resilience of landscapes and communities.

In Module 2: Understanding Nature-Culture Linkages in the Context of Disasters and Resilience, lecturers and participants were invited to the University's campus for three days. The lectures given by the international experts in the field of heritage, in both the nature and culture sectors, have been summarized. The report includes summaries of the participants' case study presentations and discussions, focusing on the main issues regarding disasters and resilience.

For Module 3: Management, Implementation, and Governance in Disasters and Resilience, there is a recount of the four-day field trip to the Tohoku region, affected by the 2011 Great East Japan Earthquake and Tsunami.

In Module 4: Reflection on Theory and Practice, the working groups' exercise is presented. The outcomes of their analysis and recommendations for the places visited are reported as well as summaries of the lessons they learned during the workshop.

In the annexes, the list of participants (Annex 1) and the program of the workshop (Annex 2) can be found.



CBWNCL 2018: DISASTERS AND RESILIENCE

Heritage Conservation is an evolving practice with one of the current debates focusing on identifying and recovering the connections between the nature and culture sectors. This exchange has become instrumental for the interpretation, conservation, and sustainable management of both natural and cultural heritage sites.

The purpose of the Capacity Building Workshops on Nature-Culture Linkages (CBWNCL) in Asia and the Pacific is to contribute to the World Heritage Capacity Building Programme, led by ICCROM and IUCN in conjunction with ICOMOS and the UNESCO World Heritage Centre, in developing new approaches towards the integrated conservation of cultural and natural heritage. These workshops explored nature-culture linkages, focusing on theory and practice, in Asia and the Pacific Region. Visiting Japanese heritage sites constitutes a core component of the programme, allowing participants to conduct on-site practical work. Participants are able to better understand issues and explore approaches being adopted in the field.

The first workshop, themed "Agricultural landscapes," held in September 2016, was inaugurated with an international symposium at the University of Tsukuba and held field visits to the Noto Peninsula and the Historical villages of Shirakawa-go and Gokayama, a World Heritage site since 1995. 14 participants from the culture and nature sectors gathered with international and Japanese experts during the workshop; the participants were from 9 countries in Asia and the Pacific (Philippines, India, Australia, Bangladesh, Sri Lanka, Taiwan, China, Turkey, and Indonesia) and 2 countries from other regions (Colombia in Latin America and Ghana in Africa). The second workshop was dedicated to "Sacred Landscapes" and was held in September 2017. The workshop closed with the Second International Symposium on Nature-Culture Linkages in Heritage Conservation. 16 participants, from 13 countries in Asia and the Pacific (Australia, New Zealand, Philippines, Vietnam, Myanmar, China, Indonesia, Sri Lanka, Solomon Islands, Papua New Guinea, Kyrgyzstan, India, and Cambodia), 1 from Europe (France), and 1 from Africa (Ghana), along with international experts on the heritage field as well as Japanese professionals and site managers, visited the Sacred Sites and Pilgrimage Routes in the Kii Mountain Range, World Heritage property since 2004.

Theme of CBWNCL 2018: Disasters and Resilience

Increasing disasters, both natural and human-made, are severely impacting the well-being of human communities and landscapes around the globe. As a result, many international organizations and governments are making efforts to combat these threats by developing programs to reinforce disaster risk preparedness, management, and mitigation, as well as building resilience in vulnerable territories, such as small island states, coastal regions, desert areas, and under-developed human settlements.

Natural and cultural heritage are not exempted from this increased vulnerability and strategies are being put into practice for protecting them in isolation by practitioners of the two sectors. In this workshop, the interest lies in exploring the nature-culture linkages that could be developed in the context of disaster preparedness, response, recovery, and the possibilities of developing comprehensive approaches that take into consideration the cultural values that could contribute to the conservation of natural areas as well as the natural values that can support the protection of cultural heritage. By sharing experiences and case studies, observing the Japanese experience in the field, and exchanging knowledge among practitioners from Asia and the Pacific, the workshop expects to raise awareness and reflect on a region that is increasingly vulnerable to disasters yet is strong in resilience and recovery experience.

Objectives

- 1. To strengthen theoretical knowledge on disasters and resilience and its relevance in connecting conservation practices between natural and cultural heritage professionals.
- 2. To visit and exchange experiences with local managers and residents in areas/sites in Japan that have been affected by disasters and learn how cultural and natural heritage have been protected, conserved, or recovered with different approaches, initiatives, and governance systems.
- 3. To reflect on nature-culture linkages, natural values, and cultural values in vulnerable landscapes in general and in the participants' own sites/case studies.
- 4. To establish networks among heritage practitioners in the region.

Methodology

The workshop is an intensive programme combining theory and practice, through lectures, presentations, a roundtable in Tsukuba at the University of Tsukuba's Campus, and a field trip to the Tohoku region: the Sanriku Fukko Reconstruction National Park, Matsushima, a place of scenic beauty, and Hiraizumi - Temples, Gardens, and Archaeological Sites Representing the Buddhist Pure Land -, a World Heritage property since 2011, where participants will get in contact with local managers and local communities.

Participants

The workshop is open to a maximum number of 15 professionals from Asia and the Pacific region involved in the management of cultural or natural heritage sites vulnerable to natural and human-made disasters. Midcareer heritage practitioners, with minimum of 5 years of experience, from both the natural and cultural heritage sectors, currently engaged in managing/working in vulnerable cultural heritage sites, and natural heritage sites with cultural values, and vice versa, are eligible to apply.







On September 21, 2018, the Third International Symposium on Nature-Culture Linkages in Heritage Conservation, Asia and the Pacific, Disasters and Resilience took place within the framework of the Tsukuba Global Science Week 2018, which general theme was "Driving Sustainable Development."

The Chairholder of the UNESCO Chair on Nature-Culture Linkages in Heritage Conservation, University of Tsukuba, Professor Masahito Yoshida and the President of the University of Tsukuba, Professor Kyosuke Nagata, respectively, gave opening addresses and especially welcomed the honored guest speakers Ms. Radhika Murti, Dr. Rohit Jigyasu, Mr. Naohisa Okuda, Ms. Kumiko Shimotsuma and Mr. Joseph King, and the roundtable guests: Ms. Kristal Buckley and Dr. Gamini Wijesuriya. The achievements of the CBWNCL (Capacity Building Workshop on Nature-Culture Linkages in Asia and the Pacific) organized by the UNESCO Chair on Nature-Culture Linkages in Heritage Conservation of the University of Tsukuba were acknowledged. It was pointed out that the University of Tsukuba, through the Certificate Programme on Nature Conservation and the World Heritage Studies Program, is working closely with the UNESCO World Heritage Centre, IUCN, ICOMOS, and ICCROM in the development of this novel curriculum.



Professor Kyosuke Nagata, President of the University of Tsukuba, inaugurating the International Symposium.



Professor Masahito Yoshida, Chairholder of the UNESCO Chair on Nature-Culture Linkages in Heritage Conservation, University of Tsukuba, giving his opening address.



Video message from Dr. Mechtild Rössler, Director of the UNESCO World Heritage Centre and the Division of Heritage, during the International Symposium.

Subsequently, Dr. Mechtild Rössler, Director of the UNESCO World Heritage Centre and the Division of Heritage, gave a speech on the role of UNESCO in disaster risk management and post-disasters recovery through a video message. She welcomed participants and the audience in general to the workshop in Tsukuba, stressing that the theme of this year, disasters and resilience is a critical one. She said that in the face of ongoing conflicts and increasing disasters, UNESCO has recognized that focused actions are required and a *Strategy for the Reinforcement of UNESCO's actions for the Protection of Culture and the Promotion of Cultural Pluralism in the event of Armed Conflict* has been developed by its governing bodies. Dr. Rössler explained that the Strategy has two key objectives: to strengthen the Member States ability to prevent, mitigate, and recover the loss of cultural heritage and diversity as a result of conflicts and disasters, as well as to incorporate the protection of culture into humanitarian action, security strategies, and into peace-

building processes. She explained that in order to address disasters as a result of natural hazards, the UNESCO General Conference adopted an addendum to the Strategy in 2017, which strengthens the overall policy framework underlying UNESCO's role for the protection of culture in emergencies associated with disasters caused by natural and human-induced hazards. She said that this would allow Member States to successfully implement culture and heritage related provisions of the Sendai Framework for Disaster Risk Reduction, which was adopted by the United Nations Members States in March 2015. Dr. Rössler continued explaining that an Action Plan for the implementation of the Strategy was also elaborated and endorsed by the Executive Board at its 201st session, including in its scope disasters caused by natural hazards. She said that UNESCO's approach for the protection of culture is part of its global vision and it is based on a strong normative framework of the six Culture Conventions, and UNESCO's Declaration on the Intentional Destruction of Cultural Heritage, which was adopted in 2003 following the destruction of the Bamiyan Buddhas in Afghanistan. She stated that the protection of cultural and natural heritage has become a security and humanitarian issue in the 21st century. She explained that UNESCO mobilizes to respond to this challenge by linking interventions with humanitarian and security operations. Dr. Rössler detailed that the activities of UNESCO range from the implementation of the United Nations' resolutions, such as United Nations Security Council (UNSC) Resolution 2199, prohibiting the trade in cultural objects originating in Syria, or UNSC Council 2347 on the security impact of cultural heritage destruction, including beyond the financing of terrorism, to the Global Coalition for "Unite4Heritage."

Dr. Rössler continued on to explain that UNESCO also aims to include culture into international Post-Disaster Needs Assessments (PDNA) and the Recovery and Peace-Building Assessment processes, through the participation of interagency coordination processes and working groups. She said that in 2013 a specific chapter on Culture was integrated into a PDNA, which implies that a single assessment methodology was defined to cover the social, economic, and government related impacts of a disaster specific to the cultural sector. She mentioned that UNESCO has also developed a training module on coordinating Post-Disaster Needs Assessment for culture in order to foster a more comprehensive understanding and to enable more effective planning and coordination by its key stakeholders and actors. Dr. Rössler continued that in 2019, the new training module will be rolled-out in Africa, Latin America and the Caribbean, as well as in Asia and the Pacific; it will target UNESCO cultural program specialists based in the field as well as key regional players. She added that UNESCO, in collaboration with ICCROM, are jointly organizing the 2018 edition of the First Aid to Cultural Heritage in times of crisis, FAC International Course in Bamako, Mali, from 12 to 30th November 2018. Dr. Rössler said that this three-week training will contribute to establishing national teams for cultural heritage first aid which will be able to work in parallel with emergency responders and humanitarians regardless of the type and scale of emergency. She specified that this training will subsequently be rolled-out in cooperation with ICCROM in other regions of the world.

Dr. Rössler continued explaining that UNESCO has developed, in cooperation with the Advisory Bodies, resource materials in 2010 and 2013, as well as produced an issue of the 2015 World Heritage Review. She also affirmed that UNESCO has enhanced partnerships in disaster management and resilience. She said that first in protecting natural heritage in times of crisis, the Rapid Response Facility (RRF) provides immediate financial assistance to natural World Heritage sites that are facing imminent and acute threats. She added that since 2006, the partnership between the UNESCO World Heritage Centre, Fauna and Flora International, the United Nations Foundation, as well as Foundation Franz Weber, has provided over one million US Dollars of emergency support to 34 Natural World Heritage properties and 8 sites on Tentative Lists. She explained that most of these acute threats are time-sensitive and require immediate response. She gave the example of disasters, including earthquakes and wildfires, which can cause sudden and unpredictable damage to ecosystems, wildlife, and rural livelihoods. She said that human-made crisis can also affect wildlife, such as armed-conflicts and oil-spills and examples related to post-earthquake tsunami recovery, included assistance to Sichuan Giant Pandas Sanctuary in China following the 2008 Earthquake or Galapagos Islands, Ecuador in 2011 Earthquake and Tsunami, which also struck the coast of Japan's Tohoku Region. She stressed that when these types of emergencies occur, it is essential to respond quickly to avoid or minimize devastating consequences. She explained that the Facility makes funding decisions within an of 8-day target, getting resources to the field fast, and making it the world's fastest conservation funding body. She added that to-date, with over 45 grants allocated, the RRF has contributed to the protection of 143 species, supported 27 natural properties, almost ten million hectares of marine-habitat-protected and 15 million hectares terrestrial-habitat-protected, and supported 33 organizations.

Dr. Rössler stated that UNESCO is currently working towards the creation of a rapid response mechanism for the protection of cultural heritage in emergency situations, including civil and military personnel that could be used during UN peace-keeping missions. Dr. Rössler emphasized that since 2016, UNESCO has a partnership agreement with the International Committee of the Red Cross which aims towards the collaboration of information on the ground in conflict zones and helping to support and build capacities in the implementation of the 1954 Hague Convention and its two protocols among humanitarian actors. She added that in cooperation with UNITAR, UNOSAD, and other partners, UNESCO monitors damage to cultural heritage through satellite imagery, allowing remote access to otherwise inaccessible areas. This helps to clarify the situation on the ground, to deploy first cultural aid, wherever it is needed, and to plan for future recovery, all of which are based on a comprehensive record of historic features and the involvement of local communities. Mentioning that the Heritage Emergency Fund, she explained how it is a multi-donor funding mechanism which was established by UNESCO in 2015, to enable the organization to respond quickly and effectively to crises resulting from armed conflicts and disasters caused by natural and human-made hazards all over the world. This Fund finances activities in the area of emergency preparedness and response falling within the domain of UNESCO's cultural conventions.

She added that UNESCO regularly informs the Committee which has led it to make various decisions related to natural disasters, such as a *Strategy for Reducing Risk from Disasters at World Heritage properties*. Dr. Rössler added that UNESCO is also working on a *Policy Compendium* and a specific update on the *Climate Change Policy for World Heritage*. She stressed that the *World Heritage Policy on Sustainable Development* in 2015 specifically calls for strengthening resilience to natural hazards and climate change. It was emphasized that, in the face of increasing disaster risks and the impact of climate change, State Parties should recognize that World Heritage represents both as an asset to the protection as well as a resource to strengthen the ability of communities and the properties to resist, absorb, and recover from the effects of hazards.

In line with disaster risk and climate change multilateral agreements, Dr. Rössler explained that State Parties (SPs) should first recognize and promote within conservation and management strategies the inherent potential of World Heritage properties for reducing disaster risks and adapting to climate change with associated ecosystem services, traditional knowledge and practices and strengthen social cohesion. Secondly, the SPs should reduce the vulnerability of World Heritage properties and their settings, as well as promote the social and economic resistance and resilience of the local and associated communities to disaster and climate change, through structural and non-structural measures including public awareness-raising, training, and education. She added that structural measures, in particular should not adversely affect the OUV of World Heritage properties. Thirdly, she said that SPs should enhance preparedness for effective response and Building-Back-Better in post-disaster recovery strategies within management systems and conservation practice for World Heritage properties.

At its 42nd session in Bahrain in July 2018, the World Heritage Committee urged the State Parties to the World Heritage Convention to prioritize emergency measures within international assistance in order to mitigate significant damages resulting from disasters that are likely to affect the OUV for which the World Heritage properties have been inscribed. Dr. Rössler added that the Committee also encouraged State Parties and other stakeholders to strengthen international cooperation, aiming at mitigating impacts of major natural disasters affecting World Heritage properties and reducing vulnerabilities on lives, properties, and livelihoods. In closing, Dr. Rössler said that this was just a glimpse into UNESCO's work in disaster risk management and response to disasters and in enhancing the resilience of sites and communities. Although expressing her deep regret at not being able to be physically present, due to the workload at the UNESCO World Heritage Centre, she wished the best for the deliberations during the symposium and workshop and looked forward to receiving the results.

Next, Ms. Radhika Murti, Director of the Global Ecosystem Management Programme, IUCN, presented "Natural Heritage – A Nature based Solution for Resilience to Disasters". She started her presentation by introducing the IUCN and their work around the globe on nature conservation issues. Just one month prior to the symposium, the IUCN and the government of Japan signed an MoU to start a new programme for Junior Professional Officers, where Japanese students could be based in their offices in Asia, Africa, Oceania or the headquarters in Switzerland. She explained that the IUCN, integrated with governmental

and non-governmental agents and organized in Regional and National Committees, Commissions and Secretariat, aims to create a big conservation movement that can accelerate action, policy implementation, and capacitation. Throughout the conservation agenda and the design of significant global instruments, the concept of Sustainability has gained a paramount position in the mission of the IUCN, as it contains potentials for fostering the preservation of the integrity and diversity of nature, as well as its sustainable and equitable use, if engrained in the society. More recently, the IUCN has been pushing the concept of *Nature-based Solutions*, establishing a group of seven global programmes, where they are trying to bring nature and people together, looking at how people interact with nature, where do the relationships and co-dependencies exist, and how to reflect these in their conservation work.

Ms. Murti mentioned that the program she leads, the Ecosystem Management Programme, is part of that group and has five key areas of work: Ecosystem-based adaptation, Drylands based in Kenya, Ecosystems-Based Approach to Disaster Risk Reduction (Eco-DRR) and the Island Biodiversity Conservation, both based in Switzerland, and the Red List of Ecosystems, a mirror or a sister of the Red List of Threatened Species. In this programme they look at how a single ecosystem started, keeping the scientific basis and the knowledge robust, and at how to adapt ecosystem management from neglected ecosystems such as islands and drylands, mangroves, and peatlands. Moreover, they look at how to use ecosystem management to benefit people, especially in dealing with climate impacts and disaster risk reduction.

Subsequently, Ms. Murti enumerated the most difficult challenges that nature conservation is facing: decreasing interest of countries for international cooperation, decline in funding, social media critique and climate change. Ms. Murti said that the conservation model is criticized as being based on Western ideals and their ethics of preserving pristine areas without necessarily thinking about their link with people. The intentions of the conservation sector, and especially the IUCN, is changing these ideas by recognizing, celebrating, and optimizing those nature-culture linkages that she considers might have been undermined in the past. Furthermore, she emphasized that the economic perspective represents a major challenge: National governments are not willing to go zero growth or de-growth in the name of sustainability and even though awareness has been raised, there is a lack of change in the business models of the corporate sector. According to Ms. Murti, these are the two challenges of the nature conservation sector: how to bring people back into the picture, and human beings as part of the economic and environmental society.

Ms. Murti also recalled how conservation evolved in its thinking and science from a focus on conserving nature for itself, to a focus on conserving ecosystems and the relationship between nature and people. More recently, nature conservation is developing transdisciplinary and interdisciplinary approaches, linking social and environmental sciences with the concept of socio-ecological systems. The ecosystem approach is the junction where conservation brings people back into the picture, with a strategy for the integrated management of land, water, and living resources that promotes conservation.

The problems they look at solving, according to Ms. Murti, are making conservation relevant to people's needs, to use conservation norms and sciences that have safeguarded species, flora, and fauna all these years, to make it more responsive to safeguarding people. She stressed that, as reported by the Millennium Ecosystem Assessment, in the quest for meeting people's provisioning needs of food, water, fiber, and fuel, the supporting and regulating services have been the most degraded in the last 50 to 60 years. The impacts of disasters and climate change that we are facing are consequences of this degradation. She asserted that if these two services in particular are not preserved and restored, it will be difficult to cope with the magnitude, frequencies, and types of disasters we are seeing, as well as the impacts of climate change.

In 2016 the IUCN launched the concept of *Nature-based Solutions to Societal Challenges (NbS)*, which was a concept grounded in practice. Ms. Murti defined it as actions to three key aspects: protect, sustainably manage, or restore ecosystems -natural or modified- while addressing a societal challenge and provide biodiversity benefits at the same time. She clarified that this is an evolving definition, and the IUCN's conception is not limited but rather focused on climate, food security, water, human health, disasters, and socio-economic development.

Ms. Murti explained some examples of NbS. Some countries, such as Switzerland, United Kingdom, Colombia, and the United States, have been using nature as a solution when dealing with natural hazards.

Investing in nature not only contributes to the conservation of ecosystems, but also gives benefits to the population and savings to the governments, which do not need to invest in expensive infrastructure. She mentioned the importance of Ecosystem-based Disaster Risk Reduction for the discussion at the symposium, emphasizing that this approach goes back to the very essence of the NbS definition: sustainable management, conservation, and restoration of ecosystems that can provide services to reduce risks to disasters and increase livelihood resilience. She explained that degrading ecosystems contribute to ecological and social vulnerability, which is exacerbated by economic, political, or social factors. Thus, by investing in healthy ecosystems through sustainable use, conservation, and restoration, ecological and social resilience can be increased substantially. Ms. Murti remarked that, increasingly, the private sector is showing more interest in this idea, which has been demonstrated to have cost-effective results in the longer term.

Ms. Murti then talked about a project that they worked on with the Keindanren Nature Conservation Fund in Japan, where they looked at eighteen protected areas from sixteen countries which was intended to demonstrate, with scientific evidence, any policy gaps and opportunities as well as any emerging practices on how protected areas can be used to reduce risks to disasters. Three of these cases were World Heritage sites: The Great Barrier Reef area in Australia, the Po Delta in Italy, and Royal Manas National Park in India. The former two protected areas showed the capacity to buffer natural hazards while the third demonstrated how reviving abandoned cultural practices, which use natural materials, can help reduce the impacts of floods and droughts.

Ms. Murti continued on to explain that they are also involved in capacity development. Challenges are becoming so complex that social sciences, governance, environment, and heritage, needs to come together because diversity is needed to solve them. Giving the example of another project funded by the Japan Biodiversity Fund, she explained how people from different ministries and countries were brought together to reflect on how nature can be used as an infrastructure to reduce risks. She mentioned that they have already trained 160 senior policy-makers, in 80 countries, and many of them have initiated new partnerships and actions on how to use the nature-culture links and ecosystem-based adaptation to reduce risks to disasters. The objective is to look at how to use nature for the present climate impacts and for the longer-term climate adaptation. These are some examples that are making the IUCN and conservation leaders re-think and re-do the image of conservation, showing its value to society, how it can benefit people, and how conservation can work to benefit human well-being centered development through ecosystem-based approaches. Ms. Murti concluded that bringing together the nature-culture linkages is absolutely essential in this endeavor and without them conservation and development will not work.



Ms. Radhika Murti, Director of the Global Ecosystem Management Programme, IUCN, presenting about Natural Heritage – A Nature-based Solution for Resilience to Disasters.



Dr. Rohit Jigyasu, UNESCO Chairholder on Cultural Heritage and Disaster Risk Management, Ritsumeikan University, ICOMOS Vice-President and ICORP President, presenting about Disaster Risks Reduction and Resilience for Cultural Heritage.

Subsequently, Dr. Rohit Jigyasu, UNESCO Chairholder on Cultural Heritage and Disaster Risk Management, Ritsumeikan University, ICOMOS Vice-President and ICORP President, was invited to present "Reducing Disaster Risks and Building Resilience of Cultural Heritage: Challenges and Opportunities." Dr. Jigyasu started his presentation by thanking the organizers and pointing out that his presentation would approach the issues addressed by Ms. Murti from the opposite angle. He first explained the reasons for the increasing concerns about the ways disasters are threatening cultural heritage by giving examples of recent events: the huge fire that engulfed the National Museum of Brazil, which destroyed almost 80% of the collections; and the unprecedented floods resulting from climate change and unsustainable development. Dr. Jigyasu talked about the floods in the Indian state of Kerala, which damaged nature and livelihoods as well as tangible and intangible cultural heritage; the floods in Paris, where the river waters engulfed the Louvre Museum, causing the largest evacuation of collections, since the World War, as a safety measure; and the floods in the Balkan region in 2014, where many historical settlements were damaged. Finally, he showed the damages to important heritage structures caused by earthquakes, such as the recent ones in Central Mexico and Kathmandu Valley in Nepal.

Dr. Jigyasu stressed that both movable and immovable, tangible and intangible cultural heritage suffer from disasters; therefore, the most important task is to look at the underlying reasons which create their vulnerability in order to take preventive measures. One of the major reasons is increased urbanization. Dr. Jigyasu showed how the urban growth is exponentially increasing and starting to have a strong impact on heritage. This was illustrated with the cases of the historical cities of Kyoto in Japan, Bangalore in India, and Ayutthaya in Thailand. In the case of Kyoto, many important cultural heritage properties have been engulfed by urbanization in the past decades. In Bangalore, an important historical city that evolved around lakes and canals, urban development disconnected the traditional water systems, increasing the risk of fires in the lakes because of toxic water stagnation. In the case of Ayutthaya floods in 2011, the archaeological site was heavily impacted not only by the rain but also because water stagnated and was unable to be drained due to the extensive urbanization surrounding the site which has affected the functioning of the watershed. Therefore, Dr. Jigyasu emphasized the importance of looking at the cultural and the natural heritage elements, at their interactions, and how when one is not respected, the other is impacted. He added that another problem is the transformation of traditional houses, which were originally designed to withstand floods but, due to modifications in the layout, they have increased their vulnerability, when floods frequency is also increasing.

Another example presented was from India, where flash floods occurred in 2013 in the northern state of Uttarakhand, where a World Heritage site that is important for Hindu pilgrimages, is located. The tourism infrastructure that developed along the river and flood plains to serve the pilgrims has increased the vulnerability of the temples and shrines. Dr. Jigyasu stressed that this example shows how development aimed at serving heritage can create its vulnerability to disasters. Moreover, he mentioned that traditionally settlements were located in the mountains and the act of moving them next to the river has also created the vulnerability that caused the disaster. He stressed that what we need to recognize is the interface between disaster risks, climate change, and ill-conceived development, looking at their interconnections in order to advance on resilience. However, Dr. Jigyasu affirmed that while looking at the increase in the vulnerability of heritage, it is also important to look at cultural heritage, not only as the victim of disasters but also as assets for building resilience. We need to recognize the positive knowledge and lessons from heritage itself that can contribute towards building resilience and reducing disaster risks.

Then, Dr. Jigyasu showed some examples of the contributions of heritage systems towards disaster risk reduction and emergency responses. For instance, in the case of the Nepal earthquake, people relied on the traditional water systems' supply in the aftermath of the disaster when the municipality's pipe water supply collapsed. Many important structures reacted very well because they were designed as anti-seismic structures. He also presented the case of the Great East Japan Earthquake and Tsunami that struck Japan in 2011, showing how the tsunami affected the Shizugawa bay. In the post-disaster recovery, the topography was altered by constructing seawalls and raising the line in order to keep the people safe. However, this alternative ignored the relationship between the people, the canal, and the sea, as well as the many cultural practices and festivals connected to this relationship. When research was conducted in this area, they realized that people have a very strong link to the landscape, to islands, to natural features, to where the sun rises, and that all of these elements are very important to keep in consideration during the recovery process; if they are not, these important heritage values might be at risk of being lost.

Another example illustrated the importance of linking culture and nature for disaster risk reduction: the island of Majuli in the Eastern part of India, which is shrinking at a very high rate due to erosion. Dr. Jigyasu explained that vernacular architecture was prepared in order to handle earthquakes and flooding, utilizing a good design, materials, and structure. However, the way that these traditional constructions are being altered and replaced by concrete structures are actually increasing their vulnerability to earthquakes. Traditionally, people would move their houses according to the floods and the slopes change. However, now that constructions are permanent, they face increasing risk from floods. In a similar way, bridges were temporary in nature and monasteries used to be relocated, but because they have become permanent structures, they have become more vulnerable to floods as well.

Dr. Jigyasu stressed that it is important to understand these traditional coping practices, which are adapted to risks, in order to incorporate them into contemporary disaster risk management practices. He emphasized that through these examples the considerable gap existing between conservation and disaster risk management, climate change adaptation, and development can be bridged. Since each of these issues is addressed by a different ministry in many countries, he called for the integration of sustainable development, climate change adaptation, disaster risk reduction, and heritage conservation and management. He added that this implies a critical challenge: To mainstream heritage into climate change adaptation and disaster risk reduction, and to work transversally rather than sectorial, at different levels. He asserted the need to reinforce nature-culture interlinkages to reduce risks, by integrating an ecological perspective in cultural heritage management.

Dr. Jigyasu added that a territorial approach for heritage protection is needed and recalled the UNESCO Recommendation on the Historic Urban Landscape Approach (2011). He stressed that efficient disaster risk reduction measures will depend on reflecting on these new approaches, using different methodologies, learning from traditional management systems, and linking civic defense agencies and the development sector with the heritage sector. One important headway has been made with the *Sendai Framework for Disaster Risk Reduction*, which recognizes cultural heritage for the first time along with other sectors and considers culture and heritage as a priority area of action. Dr. Jigyasu concluded by saying that the title of this course and symposium is critical because we need to look beyond culture or nature in order to bring all aspects together in heritage conservation: disaster risk reduction, climate change, and sustainable

development. His examples have illustrated this urgent endeavor.

After the coffee break, Mr. Naohisa Okuda, representative of the Ministry of the Environment of Japan, gave a keynote speech on "Development of the Sanriku Fukko Reconstruction National Park." He started by saying that he was very pleased to discuss the topic of resilience in heritage. As an engineer for the preservation of natural resources, Mr. Okuda has thirty years of experience in the Ministry of Environment, previously on Eco-DRR and World Heritage, and is currently the Councilor for the Cybersecurity and Information Technology Management. He said that his current work is to state the position and response of the Ministry in the face of natural disasters. Commenting on disasters he had to deal with in the past two months, Mr. Okuda described a major earthquake that occurred in Hokkaido and torrential rains in Western Japan. He also presented the situation of the Sanriku area after the major earthquake and tsunami in 2011. He explained that in order to reconstruct the area, they were debating proposals at the Ministry of the Environment and the idea of establishing a new National Park was raised with the intention of helping recover the linkage between nature and local people. The Ministry has been engaged in this project for the past seven years.

The 2011 disaster was an enormous shock in the minds of the Japanese people and resulted in the need to reconstruct the relationship between nature and human beings. The *Green Reconstruction Project* was created based on a recommendation by the Central Environmental Council in 2013, with the idea of utilizing the blessings of nature while fostering its value and preservation, but also understanding the threats. Mr. Okuda explained that they placed the idea of accepting the threat of nature at the core of the reconstruction project, while strengthening the connection between the forest, the countryside, the river, and the seas, as well as enhancing the relationship between nature and people and increasing their resilience. He explained that this project consists of seven projects, the first being the establishment of the Sanriku Fukko Reconstruction National Park. This proposal caused surprise in gatherings and international conferences because of the idea that a national park would impose restrictions on the lives of people. However, he explained that National Parks in Japan are not based on only the restrictive protection of wild nature, but that they also include private property and even settlements in order to allow the coexistence of nature and people. Moreover, he affirmed that the protection of the landscape is one of the objectives of the Japanese National Parks, and therefore, they thought that a national park could be helpful in the reconstruction of the area.

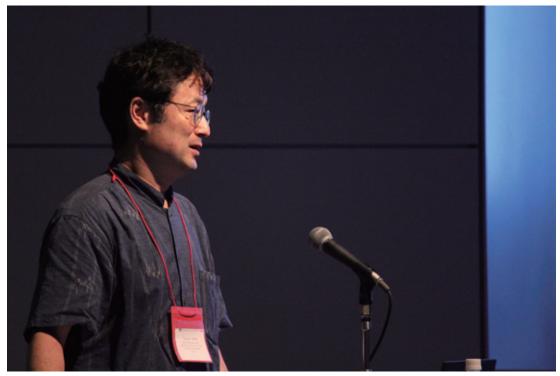
He continued, explaining the core projects, such as the establishment of a field museum, the promotion of ecotourism by creating long-distance coastal trails, and ESD -Education for Sustainable Development- to develop human resources. The priority was placed in reviewing the relationship between people and their environment, for which they developed some measures. He clarified that the main objective of the National Park system is to protect the most important areas in Japan, through a community-based approach, stressing that the reconstruction needed a long-term perspective. Illustrating with maps, he showed the area where the new Sanriku Fukko Reconstruction National Park was created, connecting several natural protected areas along the Sanriku Coast of Japan, from Aomori Prefecture to Iwate Prefecture, with the Rikuchu Kaigan National Park. The idea was that it will become a symbol for this area. He described some of the areas and showed the diversity of landscapes, for example, a shrine inside the National Park, the place where the black gull reproduces, the Tanezashi beach, some grazing ground, and another windy forested area used by people. He also showed images of the Rikuchu Kaigan National Park, with the ria coastline, and pointed out the presence of some scenic places and landscapes that have been protected with less strict regulations. He emphasized that their idea was to let people enjoy the landscapes while walking along the National Park and learn about the disaster as well as the nature-culture linkages.

Mr. Okuda explained that the coastal trail of Michinoku could also be used as an evacuation route in the event of a disaster. He mentioned that they have also established a biomass boiler, an environmental-friendly system. Then, the audience was shown a camping ground that was devastated as a result of the disaster however it was left without renovations in order to retain the remains and demonstrate to visitors the threat of nature. He continued by showing the visitors centre where local products and goods are sold by the community as an initiative for the promotion of local tourism and the reconstruction of the industry in the region. Mr. Okuda showed how they created a field museum to promote tourism in relationship with the ocean, including activities such as canoeing, kayak, nature craft, surveys, supporting training, and

capacity building courses. The coastal trail connects the Aomori prefecture to the Fukushima prefecture, giving tourists the possibility to eat local food and purchase local products while enjoying the richness of the culture in these areas.

Furthermore, he explained how this plan involved the participation of local communities and was facilitated by park rangers in order to get a bottom-up proposal for the location of the trail. This proposal would eventually be authorized by the central government, while the management of the trail is carried out by the local people who conduct the ecotourism. The Ministry is providing support to the community for a term of 4 years so that business could become viable. They are promoting people from within the community to act as guides in order for them to make a living. He affirmed that Ministry of the Environment is also providing support to the local government, exchanging views with leaders of communities, learning mutually, reflecting upon their experiences, and highlighted that local people are the key agents in carrying out the activities. They also want to secure the link with the ecosystem and he showed how they are collaborating with local people in restoring and protecting the wetlands and their biodiversity.

Lastly, Mr. Okuda said that since they need to monitor the natural environment, several locations became candidates for the Ramsar Convention on Wetlands. One of those areas, the Shizugawa Bay, was strongly impacted by the disaster but is still keeping values that can satisfy the criteria for its inscription. He summarized that the objective of the project is to protect nature as a tool for contributing to reconstruction by revitalizing the community, starting with ecotourism as a tool for economic development, while reinforcing the linkages between people and nature and creating spaces where they can learn about the threat of nature as well as convey this message to the next generation. Mr. Okuda closed by saying that the threat of nature should not be dealt with through a total restructuring, but rather using the existing and remaining resources to reconstruct, and in that way the local community could be more sustainable.



Mr. Naohisa Okuda, representative of the Ministry of the Environment of Japan, presenting about the development of the Sanriku Fukko (Reconstruction) National Park.



Ms. Kumiko Shimotsuma, representative of the Agency of Cultural Affairs of Japan, presenting about Disaster Risk Management for Cultural Heritage in Japan.

Next, Ms. Kumiko Shimotsuma, representative of the Agency for Cultural Affairs of Japan, presented "Disaster Risk Management for Cultural Heritage in Japan." First thanking the organizers for the invitation, she introduced her talk that focused on some recent disaster risk management efforts in heritage conservation by the Japanese Agency for Cultural Affairs (ACA). Her presentation consisted of three parts: the overview of Japan's overall national disaster risk management (DRM) policies; the introduction of the DRMs as a part of heritage management; and the challenges and opportunities for the strengthening of the DRMs in heritage management. There is a Disaster Countermeasures Act that functions as a core legal instrument for disaster risk management in Japan. Ms. Shimotsuma mentioned that, after the damages of the super typhoon in 1959, the Basic Act was enacted in 1961, leading to the establishment of the Central Disaster Management Council by the Cabinet Office in 1962. Thereafter, the Disaster Management System has been continuously reviewed and revised in order to integrate lessons learned in disasters. The organization of the Cabinet, heads of major public corporations, and experts. Ms. Shimotsuma explained that the Council officers' meetings gather the relevant Director General level persons of each ministry and agency, including the ACA as part of the Ministry of Education, Culture, Science, Sports, and Technology (MEXT).

The outline of the Disaster Management System in Japan was shown and framed according to the Basic Disaster Management Plan developed by the Central Disaster Management Council. Ms. Shimotsuma said that each Ministry and Agency has developed its own Disaster Management Operation Plan, and that each local government has developed its prefecture and municipal Disaster Management Plan. She explained that residents and enterprises are also invited to develop a Community Disaster Management Plan on a voluntary basis. The ACA also has its own Disaster Management Operation Plan, which has not been amended since 2008. The structure of the Basic Disaster Management Plan establishes the responsibilities of each of the entities involved and the countermeasures for each type of disasters according to the disaster management phases: preparedness, emergency response, and recovery. Ms. Shimotsuma noted that before 2016 there were only two provisions that mentioned cultural heritage: the earthquake disaster plan and the large-scale-fire disaster plan. After the *Third World Conference on Disaster Risk Reduction* that year, the Basic Disaster Management Plan was reviewed, and the ACA included the statement about cultural heritage disaster risk management following the inclusion of culture in the *Sendai Framework for Disaster Risk Reduction*. However, in the section of building resilient communities, it was difficult to include cultural heritage because community design is conventionally considered outside of the mandate of the ACA.

Regarding the DRM activities of the ACA, Ms. Shimotsuma developed the case of Important Property

Buildings. In heritage conservation in Japan, buildings are part of one of the categories with the longest history and the DRMs have been highlighted since the very beginning. In Japan, heritage protection actions are divided into conservation and utilization. Conservation is defined as a measure to retain the cultural values of the heritage by means of alteration control and restoration. Utilization includes enrichment, or public access to, or interpretation of heritage and promotion of use for social development. Between conservation and utilization, management is divided, by an official document issued in 1984, into three categories: daily or regular maintenance, minor repair and restoration, and the maintenance of facilities and equipment for protection. Ms. Shimotsuma clarified then that the DRM are identified as a part of management in Japan, a concept that has been developed over time, with additions such as diagnosis or development of management plans. According to this classification between conservation, management, and utilization, financial assistance programs are systematized and developed. The measures for the DRM are divided into three areas: fire prevention and crime prevention, environment conservation, and seismic countermeasures, based on which, they developed the necessary records and achievement rates. Ms. Shimotsuma mentioned that the normal framework to promote disaster risk reduction is based on the subsidy rate of 50 to 85% depending on the property owners living scale.

Then, Ms. Shimotsuma talked about the challenges and opportunities. Integration is an important topic and she affirmed that a good DRM treatment comes from a holistic constellation of conservation, management, and utilization, in order to be an efficient tool for heritage management. The ACA developed a guideline for management plans for important property buildings in 2006, and since then, the ACA has encouraged property owners to develop their own plan.

In Japan, the Law for the Protection of Cultural Property defines six classifications for cultural properties and financial assistance programs are prepared, and conducted, according to this classification system. However, some heritage buildings have heritage objects within them, and some heritage buildings are located within historic sites or historic gardens as well as places of scenic beauty. Therefore, the planning and implementation of the financial assistance programmes requires dealing with the different cultural heritage property types from an integrated perspective. She noted that the large earthquake in 2011 called attention to the need for a major dialogue among colleagues and a better coordination among the six categories for the rescue activities of the damaged heritage. Ms. Shimotsuma said that compared to constructed heritage, archaeological sites or places of scenic beauty have a tendency to take more time to develop disaster recovery plans. In Japan, there is a system called buried cultural properties, which are unexcavated subterranean archaeological remains. After the earthquake in 2011, excavation surveys were required before or during the recovery work. Ms. Shimotsuma said that the ACA made efforts in ensuring compatibility between swift recovery work and the excavation survey by improving technologies and increasing excavation staff, in close cooperation with local governments and using the national budget.

In the case of movable heritage, Ms. Shimotsuma said that swift first aid actions to collect them, treatments to prevent deterioration, and appropriate conditions for storage are required. She stated that for the national government, the usual partners in emergencies are local governments, but in 2011, many local governments did not function anymore because of the losses of staff members during the disaster and the focus on activities of rescue. The heritage divisions in the ACA had to use their own existing networks to take the necessary first aid actions, such as the support of architectural institutions and associations for the survey of built heritage; of museum and university networks for the survey of movable heritage; and of local governments in the affected areas for the survey of archaeological sites and buried cultural properties affected during the disaster. Ms. Shimotsuma mentioned that after those experiences, they are currently working on the improvement of the transfer communication for rescuing heritage as much as, and as various as possible, including not only heritage under official protection but also heritage without official protection, as those play an important role in sustaining the local identity. Furthermore, she explained how science museums and libraries -not under control of the ACA- had objects and important books, evidence of human intelligence, in need of rescue together to officially designated heritage. She explained that in the 2011 earthquake, around 15,000 people died, more than 6,000 were injured and still many are missing, and this condition created concern about the damage to intangible cultural heritage, particularly intangible folk cultural heritage. Ms. Shimotsuma added that the damage of important places for culture, such as seashores, drew their attention and made clear that the damage to nature has a strong relation to the damage of culture.

Ms. Shimotsuma explained that since 2007, the ACA has encouraged and supported local governments to develop their Basic Strategy based on history and culture, emphasizing that it should include a comprehensive list of all types of cultural heritage in their territories, both designated and undesignated. It is expected that a wider use of these kinds of strategies will be seen soon to help each local government pay and get adequate attention to history and culture of the place in all sorts of social development activities. In 2018, the Basic Strategy included a Local Master Plan for the Conservation and Utilization of Cultural Properties and the Law was amended to ensure the authority of the local government in the development of their local master plan. The amendment will become effective on the 1st of April 2019. It relates to the acceleration of the demographic ageing resulting from the decline in the birth rate as well as the need to strengthen a system to encourage local participation in heritage conservation. Ms. Shimotsuma said that they expect the lists and easy-to-follow strategies developed in the local master plan to be effective in encouraging local residents to build local ownership so that the local initiatives pay sufficient attention to the history and culture of the place in all sorts of activities. She noted that the list is also expected to be used for heritage rescue and recovery in times of emergency.

Since the large-scale earthquake in 1995, a rescue system for movable heritage and a damage investigation system for immovable heritage have both been gradually developed by larger private initiatives by a network of experts and the ACA has also cooperated with these activities. However, the ACA always faces a question of authority into how deep it can be involved in the work with undesignated cultural properties, which makes it difficult to include an official support system for rescue and damage investigation activities in the ACA disaster management operation plan. Ms. Shimotsuma expressed that following the law amendment in 2018 would be also crucial to develop the Disaster Management Operation Plan. She recalled that she gained her experience, initially in heritage buildings fields, then in urban conservation and currently in cultural landscapes, and she notices that a framework of cooperation can be created when heritage covers wider areas, more complex elements, and stakeholders. To ensure good relationships among different heritage categories, stakeholders, between heritage and nature, and between heritage, particularly folk culture. Ms. Shimotsuma closed by saying that it is also crucial to develop heritage utilization in times of peace and heritage disaster risk management in the same framework.

PANEL DISCUSSION

Dr. Maya Ishizawa invited Professor Yoshida to chair the Panel Discussion. **Professor Yoshida** thanked the presenters for their interventions and noticed that both Ms. Murti and Dr. Jigyasu mentioned the existing lack of coordination between sectors in the development of a common disaster management plan and emergency response that would consider both natural and cultural heritage as important aspects. He directed the first question to both Ms. Murti and Dr. Jigyasu about what can be done to integrate the separation existing between disaster risk management, conservation and development sectors.



Dr. Maya Ishizawa, programme coordinator of the UNESCO Chair on Nature-Culture Linkages in Heritage Conservation, University of Tsukuba, opening the Panel Discussion.

Ms. Murti felt that there are three aspects where professionals could improve on for the better integration of intersectoral actions. The first aspect she mentioned was that currently professionals undermine the need for solution-based language. She suggested that the conservation sector should move away from a "threat-based approach" and turn it into the language of nature-based solutions, pointing out that the right action for nature leads to a solution for everyone. The second aspect she suggested is that we should move from promoting our own agendas, rather we should show how something is mutually beneficial: how one action can actually help different ministries achieve their work plans and objectives. The third aspect she referred to is to move away from the domination of one entity over the others and to the co-creation of knowledge. She affirmed that the co-creation of knowledge leads to a common way of acting and a common change of behavior, which she considers helps in assuring that later all sectors will work and implement together.

Dr. Jigyasu added that one of the major problems in the heritage sector is the separation in terms of education, between movable and immovable, cultural, and natural heritage. He said that even though, professionals are always interacting at a decision-making level, it would be beneficial if the interactions would instead start at the educational capacity building level. An example of this model is the course they undertake yearly at Ritsumeikan University where they bring participants with DRM expertise together with cultural heritage professionals, both having dealt with movable and immovable heritage, into a process of mutual capacity building learning exercises, where they can learn from each other's vocabulary as well as the different tools and the methodologies. He affirmed that this is not an easy-process but if the intersectoral work is promoted at that level there would be more of a comfort zone between sectors at the level of coordination and communication.

Subsequently, **Professor Yoshida** turned to the Japanese authorities, thanking them for their explanation about the government actions in the recovery from the 2011 disaster, remarking that they are valuing nature and culture to solve problems. He was interested to know if, in the case of reconstruction, the Ministry of Environment (MoE) and the ACA were cooperating not only among themselves, but also with the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) as well as what issues they have faced in this process.

Mr. Okuda replied that the ACA and the MoE have different management systems, but when discussing a specific site, there can be space for cooperation when the objective is common. He gave the example of how the objective of the MoE in Tohoku was to connect the country side, the sea, and the river in order to bring back the richness for the recovery, while the MLIT, the Ministry of Agriculture, Forestry and Fishery (MAFF), and other entities also had areas in need of protection, therefore there was momentum to cooperate and

work together. He stressed that within a specific site there will be room for collaboration, but his impression is that when talking about concepts or generalities, each entity has different objectives, therefore, there may be some conflicts.

Ms. Shimotsuma said that over the past twenty or thirty years, within the government, there has been a collaboration, and, within this collaboration, there is further improvement. She explained that in the case of Japan, they are trying to reconstruct local regions while at the same time they need to reconstruct the vacant houses. For the past one or two years, Ministries have been disclosing their projects on the web, so that local communities can obtain information. She agreed that in order to collaborate, there is the need to target the same large framework, but she added that when one actually goes to the local community, there will be things that will be different. Therefore, one would have to make adjustments and a system is needing to be able to do that. The recent policies aim at making a system at the local level, with local communities, so that projects can be introduced in the local areas, rather than making a formal structure. She stressed that they are trying to create linkages with the local people, so that the projects would be accepted, and the support would be less expensive. She is dedicated to exploring how processes can be improved for intersectoral work and work with the community and would like to continue to the next step.

Ms. Murti added that when they started the work on Eco-DRR, they chose Japan as a partner because they always look for champion governments that can work as examples for other governments to follow and help to up-scale strategies. She affirmed that the uniqueness of Japan lies in the continuous presence of nature-culture linkages and that development has happened around the heritage. She thinks that this experience with tangible examples can be taken to other parts of the world and communicated more. She said that they have been working with their IUCN colleagues based in Tokyo on inviting Japanese researchers to communicate Japanese case studies around the world in order to show that it is possible to develop and be a prospering nation, while conserving natural and cultural heritage. She affirmed that there are very useful models that can be picked up from Japan which communicate the messages that the IUCN wants to communicate to countries who have not followed the wrong path yet or are half way down it.

Mr. King asserted that the difficulty lies in how people find it hard to get out of the "bubble" they studied in. He referred to his own experience as an architect and urban planner, placing his point of reference in these disciplines. He recalled that when he started working with the IUCN about making the linkage between culture and nature, it forced him to go onto ground that was uncomfortable for him. He said that when the Intangible Cultural Heritage (ICH) Convention was drafted, people working on the other conventions of UNESCO, such as the World Heritage Convention were also uncomfortable. He considers that overcoming that discomfort is really difficult, time consuming, and it takes the willingness to be uncomfortable in ways that one has never been before as well as use language that one has never used before. He feels that they are moving in that direction and he sees a lot of steps have already been taken, although there is a need to keep moving.

Professor Yoshida mentioned that the ICH and tangible heritage are under the same Law in Japan and that in Minami-Sanriku Town, a place that the workshop participants will visit, a local fisherman that is involved in the recovery of oyster farming is also involved in the recovery of the ICH, the deer dance, in order to make the community stronger. So, the ICH is very important for the connection between nature and culture.

Ms. Buckley thanked everyone for their presentations, which she thinks provided a good basis for the workshop. She mentioned that what challenges her is that in these kinds of forums they find themselves in "furious agreement" about many things, especially the need to work together and agreed with Mr. King's comments. She recalled the graphs that Dr. Jigyasu showed which illustrated the increase of natural disasters and acknowledged that a lot of work has been done in understanding and facing disasters as well as many lessons have been learned. However, she affirmed that what is done during the immediate aftermath of a disaster tends to be very chaotic. She said that different countries have different systems, some better than others, and she affirmed that this is where the capacities of cooperation become critical among heritage conservation professionals and agencies, inside a national system as well as among the agencies undertaking rescue and emergency services. She mentioned programs that have been instituted by ICCROM, by the Japanese Government in particular, by the IUCN, reaching out and making those connections and reflecting on how to react better. She concluded that the work on resilience and vulnerability factors are meant to

avoid making hasty decisions in the immediate and later aftermath of disasters and have really effective ideas that can be put into play as response to disasters.

Dr. Jigyasu said that he often finds that developers have misconceptions, thinking that heritage professionals do not address the basics of survival but rather talk about monuments, something they think it is very elitist, while the developers are more focused on talking about human safety and the lives of people. So, he thinks that there is a lot of effort that needs to be made to communicate to other sectors exactly what the intentions are of heritage professionals. He said that sometimes we should not use the word "heritage" because it may have unwanted connotations. So, he called on heritage professionals to communicate in the language of the other sector because, many times, they are talking about the same things but in their own language. He gave the example of the concept of "sustainable livelihoods" which would correspond to the concept of intangible cultural heritage.

Professor Yoshida agreed with Dr. Jigyasu that sometimes there are misunderstandings when talking about the conservation of heritage.

Dr. Wijesuriya explained why the project on Nature-Culture Linkages is taking place in Japan. He recalled how Ms. Murti mentioned the existence of nature-culture linkages and high-level disaster response systems, and that Tim Badman, director of the IUCN World Heritage Programme, said that Japan was the place to start this nature-culture conversation when the discussion on starting this course took place in Bonn in 2015. He said that we start in the highest level -this level of sophistication at once cannot be seen in many countries-and this could benefit the others. He stated that what is most important is to change our mindsets, which he finds difficult for his own generation, but he considers it can be achievable for the next generations through these courses. He re-affirmed what Dr. Jigyasu said, that other sectors also want to work together, and we should adapt our language, not be isolated anymore, not working in our own silos, but rather thinking about integration and working together towards solutions, looking at the benefits, it is the right direction to help us working together.

Ms. Murti said that conservation people also get the same reaction from other sectors working in disaster response, who state that they are trying to save lives while conservationists are worried about nature. She gave the example of what happened in Haiti, where they spent time, effort, and money on rescuing people from rubbles during the 2010 earthquake; however, a few months later a significant number of people died of cholera because they polluted the waterways during the rescue actions. She stressed how response workers do not see the impacts of what the immediate rescue relief does on the short, medium, and long-term recovery. She continued, saying that this same challenge also exists with people who do not understand the linkages, so she explained that their strategy is to work with champions, like Japan or private companies, that understand that it is about owning your risk, managing your risk, and reducing your risk. She explained that often they have to talk to governments first about risk reduction before they can talk about using Eco-DRR because many countries do not do risk reduction but rather they only focus on relief and recovery. She said that usually relief and recovery are composed of ad hoc teams, so there is nobody to talk to when the disaster is not yet there. She concluded that there is a long way to go before governments understand and do risk management before even bringing nature as a solution to that.

Mr. King agreed with Dr. Wijesuriya in that there is a need to change the mindset. He added that we need to get away from the idea of talking about the "other side," that we need to convince them of doing something. He said that what we need is to find a middle ground, which is what we also need to do with the culture and nature sides. He explained that even in ICCROM, they used to have a clear demarcation between the movable and immovable heritage units, however, they are currently merging those two units into one so that they can work together. They are also working with the IUCN, ICOMOS, and the UNESCO World Heritage Centre and he re-affirms that it is a question of changing the mindset and recognizing that we are all in this together in one way or another.

Ms. Shimotsuma commented on the ideas of "filling the gap" and "changing the mindset," which she says she has heard frequently in the last few years, but that she does not know how to interpret, as the interpretation differs slightly from individual to individual. She explained that in the last 10 to 20 years, they have been trying to figure out how to promote and utilize heritage, but they found that, whether it is

culture or nature, the heritage values vary from the local communities to the government. The government has to select certain assets using certain criteria, and in this process the number of assets originally listed by the communities are reduced, and their values as well. She believes that this causes a gap with the local community because people would not be willing to utilize their time and money if their assets and values are not considered. She affirms that the first step they need to take when thinking about reality and utilization, is to figure out how to include and engage local communities. She says that instead of thinking of "filling the gap" or "changing the mindset," we should provide the explanation based on our standards and at the same time try to listen to what others have to say.

Mr. Toshikazu Ishino, Vice President and Executive Director for Finance and Facilities at the University of Tsukuba and a session attendee, mentioned that after the 2011 Great East Japan Earthquake, he was the ACA person responsible for the excavation of the land assets. He explained that the locations where they worked on the survey were also the places where people who lost their houses due to the tsunami were trying to build a new house. However, he explained that this survey needed to be conducted before building the houses. He said that at that time, he had a conversation with the locals and the town mayor and they were quite fierce, not understanding why the excavations were needed. He explained to the locals that the ACA was giving priority to ensuring the security of the land to be used for building houses, however, the locals thought that the archaeologists were doing surveys for their own satisfaction. He expressed how they tried to explain to the owners that these assets actually show us how our ancestors had lived and are part of the history of the place, asserting that these things should help young people to build pride in their local community, but they were still told not to take too long time for the surveys. Therefore, he said that they had to put extra effort into mobilizing resources throughout Japan so that they would be able to finish as early as possible. He referred to what Ms. Shimotsuma previously mentioned, that they have introduced forensic technology and partnerships with the private sectors, while intending to include local values. He considers that rather than just changing the mindset, people should try to avoid giving their own opinion and instead have a coordination discussion.

Finally, Professor Yoshida closed the session by thanking the guest speakers and announcing the lunch break.

After the lunch break, Dr. Ishizawa introduced Professor Nobuko Inaba, from the World Heritage Studies Programme. Professor Inaba was in charge of chairing the "Roundtable Discussion on Key Issues on Resilience of Nature-Culture Linkages in the face of Disasters." Professor Inaba introduced Mr. Joseph King, Director of the Sites Unit of ICCROM, who presented "Key Issues for Disasters and Resilience in line with World Heritage Policy Guidance." Mr. King thanked the University of Tsukuba and the UNESCO Chair for holding this forum and for allowing ICCROM to be a partner in the workshop. He thanked, on behalf of ICCROM, the Japanese government and institutions for their partnership and described the relationship of ICCROM with them as very strong. He told the audience that in the month of September, ICCROM has three different courses going on in different cities in Japan: one on disaster risk reduction with Ritsumeikan University in Kyoto, one on nature-culture linkages with the University of Tsukuba, and one on archaeological sites management in the Asia-Pacific Cultural Centre for UNESCO (ACCU Nara). He continued saying that his talk would deal with World Heritage Policy and the issues of Disasters and Resilience as it relates to the World Heritage Policy Guidance. However, he explained that the World Heritage Policy, if existing, is done on an ad hoc basis, based on the accumulation of decisions that are made on particular topics. He added that sometimes it would be called a policy, or a strategy, or even a recommendation. He stated that there are a series of documents and decisions which guide the decision-making of the World Heritage Committee and provides guidance for State Parties to the World Heritage Convention, the Advisory Bodies to the World Heritage Convention, the UNESCO World Heritage Centre, and other relevant actors. He said that he chose to focus this particular presentation on four documents: The Strategy for reducing risk at World Heritage Properties, the Policy on Impacts of Climate Change at World Heritage Properties, the Policy for the Integration of a Sustainable Development perspective into the processes of the World Heritage Convention from 2015, and the World Heritage Capacity Building Strategy.



Mr. Joseph King, Director of the Sites Unit of ICCROM, presenting about Key issues for Disasters and Resilience in line with World Heritage Policy Guidance.

Mr. King said that we should focus on disaster risk because the increase of disaster is correlational to the damages in cultural and natural heritage. It is common to talk about climate change and the consequent vulnerabilities but there are also potential disasters created by humans. Due to the fact that there are more disasters, we need to think on how to create planning frameworks and the necessary disaster risk policies for confronting these problems. Mr. King explained that they recognized this issue for World Heritage more than ten years ago and that together with the UNESCO World Heritage Centre, the IUCN, and ICOMOS they have worked on the development of a policy or strategy for disaster risk reduction. This strategy has five main objectives, which includes strengthening institutional support and governance, increasing our knowledge, increasing our innovation, and increasing our education, to build a culture of disaster prevention. Mr. King added that it included identifying, assessing and monitoring risks, reducing the underlying risk, and strengthening our disaster preparedness at World Heritage properties. He said that eleven years later, there have been some positive outcomes, like the integration of heritage and disaster risk reduction as part of the sustainable development framework. Moreover, at the international level, national levels, and in various global forums, heritage professionals have started working with a number of international partners, such as the UNISDR or the World Bank, to strengthen the links between heritage and disaster risk management. This is an outcome of the Sendai Framework of 2015, which recognizes heritage, both cultural and natural, as part of a necessary disaster risk reduction framework. Mr. King continued, saying that this outcome is related to an earlier discussion in 2005, at the World Conference on Disaster Risk Reduction in Kobe, where many colleagues in the Disaster Risk Reduction community were unable to understand the importance of integrating culture.

There is also a need to work with civil defense authorities and ICCROM has already started with training and capacity building in different countries. There has been progress in the area of increasing knowledge, in particular with the incorporation of traditional knowledge systems, a very important element that heritage professionals can bring to the disaster risk community. Mr. King added that for long-time heritage professionals would request the help of the disaster risk community in order to preserve important sites; however, now they can support the disaster risk community by sharing knowledge, such as traditional knowledge and systems, which could sustain and build more resilient places, cities, and landscapes. Unfortunately, they did not have success in all aspects of the strategy. Mr. King explained that one part of the irrategy was that every World Heritage site would have a Disaster Risk Management Plan as either a part of their Management Plan or separately. A survey on 60 World Heritage sites conducted by UNESCO found that 37% had no identification of risks and no plan in place and that only 10% of those 60 properties had presented an effective risk management plan. Mr. King added that since mapping out disasters at the global

scale is lacking, they are still missing a global risk map, which they have not been able to work out yet at an international level, even though there are a number of countries that are doing it at a national level.

Mr. King then went on to talk about the *Climate Change Policy* from 2008, which identified three areas requiring work: creating synergies with other international conventions and organizations; promoting research needs related to increasing risk factors, socio-economic research, and sources of stress factors; and the third is the issue of legal questions, which he finds interesting because it looks at responsibility. If State Parties are responsible for protecting their World Heritage properties, then the question would be whether it is their responsibility to put in place mechanisms to combat climate change and, if they do not, would that mean that they are not meeting their obligations under the Convention. Unfortunately, there has not been much work and reflection on this issue and Mr. King concluded that the Climate Change Policy has not been successful in regard to World Heritage. Nevertheless, he affirmed that the UNESCO World Heritage Centre, the Advisory Bodies, and a number of State Parties are about to embark on a process to build a stronger policy document specifically in relation to climate change in the next few years.

Mr. King continued with the third policy, which follows the 2015 UN Framework for Sustainable Development and looks at 4 key areas: Environmental Sustainability, Inclusive Economic Development, Inclusive Social Development, and Peace and Security. Since the policy is a very new document, he cannot present whether it has been successful or not. The goal of the policy is to harness the potential of the World Heritage to contribute to Sustainable Development; thus, to ensure that the conservation and management of World Heritage sites are aligned with the Sustainable Development Goals and ensure that OUV, the basis of the World Heritage Convention, is not compromised while looking at the sustainable development and sustainable use of sites. Therefore, Mr. King explained that the idea was to take those four aspects of Sustainable Development and put them through a funnel of conservation and management of the World Heritage properties, with the idea that they would enable more sustainable sites respecting both their cultural and natural values.

One of the general provisions of the policy on Sustainable Development is human rights, an overarching principle that has opened up a whole new discussion within the World Heritage world about interacting with communities, indigenous peoples, and ensuring that sites can promote equality for all of their communities. Moreover, Mr. King said that the Policy also looks at sustainability through a longer-term perspective. He remarked that for the area of Environmental Sustainability, the policy talks about protecting biological and cultural diversity, ecosystems services and benefits, and strengthening the resilience to natural hazards and climate change. In order to achieve this, an entire systematic or ecosystem science perspective is necessary. In relation to social development, the policy talks about inclusion and equality, and enhancing the quality of life and wellbeing of the people, which he finds important when talking about disaster risk reduction and sustainable development. Mr. King noted that cultural or natural heritage professionals may have different concepts of heritage than the communities, so he asserted that we have to make sure that they are consulted and integrated in the common efforts to achieve the Sustainable Development Goals.

On the economic development side, the policy on Sustainable Development talks about the need to ensure growth, employment, incomes, livelihoods, particularly from tourism, and also through capacity building and local entrepreneurship. Tourism is a difficult issue because its massification generally brings economic benefit but also has a tendency to cause problems and may ultimately reduce the resiliency of a community or place. Therefore, we need to be careful in terms of economic development and ensure that it will provide sustainable development, which in addition to the economic benefits promotes environmental, social, and cultural sustainability. Mr. King recalled how during World Heritage Committee Sessions, some State Parties claim the need to put a coal or uranium mine in or next to the World Heritage site as a mean for sustainable development. He affirmed that economic development does not equate sustainable development. This is an argument that should be made by heritage professionals, since the provision of money does not mean sustainability. Moreover, Mr. King remarked that the income that tourism or mining may bring do not necessarily go to local communities but rather to international corporations.

The fourth leg regarding the peace and security of the sustainable development strategy comes back to the issue of disasters. Although, in this case human-made disasters, it looks at conflict prevention and protection of heritage during conflict and at using the heritage as a means for diffusing conflict. Mr. King called attention

to post-conflict recovery, an area requiring major discussion, as he stated, it is a long-term process.

The Sustainable Development Policy from the World Heritage keeps in mind the discussions on the 2030 Agenda for Sustainable Development, which Goal 11 talks about "sustainable cities and communities," with the target of 11.4 "to strengthen efforts to protect and safeguard the world's cultural and natural heritage." Mr. King stressed the important achievement of the inclusion of cultural and natural heritage into the larger UN document for Sustainable Development and that heritage professionals should not only look at Goal 11, but all of the goals in the Agenda 2030 because of the potentials of heritage in the alleviation of poverty, promoting better health and wellbeing of people, and providing quality education. Continuing with his reflection, he said that the World Heritage Sustainable Development Policy also leaves the question of the World Heritage system as being top-down, with decisions based at the World Heritage Committee Sessions. The World Heritage Committee is a decision-making body made-up of 21 State Parties, at any one particular point in time, that ultimately make decisions for the system and the nominations of World Heritage sites. Additionally, at the level of individual countries, it is the State Party that puts nominations forward and there is nothing forcing it to consider Sustainable Development Goals for the nomination; namely, there is nothing that forces a State Party to obtain the consent of its local population before putting a nomination forward. The Advisory Bodies are trying to address this issue; however, the power tends to originate higher up. Mr. King continued that for him, the question then becomes how to ensure the integration of Sustainable Development into the World Heritage system when Sustainable Development ought to be a bottom-up approach, a people-centered approach, and the World Heritage system is designed to be a top-down, State Party approach, an international community approach.

To conclude, Mr. King stated that the way that ICCROM tries to deal with this issue is through training and capacity building. The *World Heritage Capacity Building Strategy* was developed in 2011, with the idea of balancing the top-down approach of the World Heritage system with bottom-up processes, which means working with communities and networks, institutions within State Parties -and not just with the State Parties themselves-, and practitioners. He declared that they have been joined by the IUCN in the World Heritage Leadership Programme (WHLP), which is meant to link together culture and nature. Within the WHLP, the culture side is looking at learning management practices from the nature side while the nature side is learning from the management practices on the culture side. Mr. King asserted that they are also dealing with the issues of resilience and disaster risk management, as well as impact assessment, and they are trying to build more networks related to culture and nature. He concluded that this is the way that they are trying to invert the top-down so that it is more bottom-up.

ROUNDTABLE DISCUSSION

Professor Inaba thanked Mr. King for his speech and invited the roundtable guests to join the general discussion. She clarified that the forum is public and that all participants of the two-week workshop are also part of this symposium. She said that this symposium is a space for listening to talks from eminent experts and stressed that Mr. King, Mr. Okuda, and Ms. Shimotsuma are only present for this event, emphasizing that these were precious lectures. She explained that Ms. Murti and Dr. Jigyasu would be joining the three days of workshop. She invited two additional resource persons, who would attend the whole workshop and field trip, to join the final discussion, Dr. Wijesuriya and Ms. Buckley. She introduced them as experts who know the purpose and expected outcomes of the course well.

Dr. Gamini Wijesuriya thanked the organizers and introduced himself. He worked for ICCROM for the last 14 years -until December 2017-, under the leadership of Mr. King. He explained that the work on linking nature and culture started in 2014 and that he was able to work on it from the beginning, organizing several activities that he will introduce during his lectures in the workshop. He also recalled that, thanks to the University of Tsukuba, he could participate in the implementation of this workshop series from the beginning. He thanked all of the presenters for their wonderful talks and asserted that there will be many reflections to bring home and discuss during the next two-week workshop. He recalled the definition of resilience, saying that it is the capacity of an entity, individual community, organization, or a natural system to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from destructive experiences. He said that through the presentations we could learn from the nature sector and the culture sector how we can respond to that and that he wanted to insist on the topic of integration. He said that

as a legacy from the British colonial rule in Asia, "we are good at divide and rule," and now we must try to integrate. However, he stated that nature, culture, and people were never separated, and he quoted a Veddhic text, from 2,500 years ago, that he found when he started his work on nature-culture:

"Oh mother Earth! Sacred are the hills, snowy mountains and deep forests. Be kind to us and bestow upon us happiness. May you be fertile, arable, and nourisher of all. May you continue supporting people of all races and nations. May you protect us from your anger. And may no one exploit and subjugate your children." (Atharva Veda, book XII, hymn 1, verse 11)

In this text, they are begging nature, recognizing the sacredness of all-natural elements, and praying for protection from disasters. He stressed that the divide was created by people and that now we must try to integrate. He re-affirmed the importance of integration, as we heard the different experiences during the presentations about the benefits of integrating, and that he is trying to promote it as a philosophy. Dr. Wijesuriya said that integration is about shifting organizational and participants' cultures, that it facilitates coordination between agencies and community groups, and that it can come up with new regulatory and institutional frameworks. He reassured that he has a strong belief in that integration is a good thing. We can celebrate this change of mindset, as we saw in Japan with the best example provided by Ms. Shimotsuma, how the heritage activities of the ACA level are now integrated at national level, as well as how the DRM has been integrated into the entire heritage management system. Dr. Wijesuriya wondered how many countries have a DRM as an integral part of heritage management and said that he was interested in hearing some answers from the workshop participants. He also noted how many Japanese agencies are giving place to people, putting communities at the top of their agendas. Dr. Wijesuriya also discussed how we are working on the integration of nature and culture, which is divided into culture sector and nature sector, through this course as an example, and in that way, the new generation is receiving the message. He added that hopefully, the Sustainable Development paradigm that Mr. King talked about will bring all of us together for better integration, for a better future for people, that is not limited to resilience, but is for everything else.



Professor Nobuko Inaba, University of Tsukuba, moderating the Roundtable Discussion.

Ms. Kristal Buckley, from Deakin University in Melbourne, Australia and ICOMOS World Heritage Advisor said that she totally agreed with Dr. Wijesuriya in that we separate heritage conservation concepts and practices between nature and culture, but it is not happening in many cultures. Living in Australia, she has learned this from her own engagement with the indigenous peoples that see landscape as sentient and not separated from themselves or from the past. Most countries have set up their bureaucracies, their laws, and their systems of institutional arrangements to divide nature and culture, even countries where the local beliefs do not follow this divide; she noted that this is an institutional and structural issue as well as

conceptual. We have been grabbling with this year after year in this course, but Ms. Buckley thinks we are at a point where we need to start talking about how to do this. She asserted that good progress has been made in raising awareness and challenging the conceptual and institutional arrangements that we have and are working with. However, the question is how we overcome the challenges that we keep finding. Resilience is a very good concept, but we still struggle on exactly how to find it, how to create it, and how to sustain it. This is due to the fact that resilience has to exist across many different aspects of human and non-human existence, in places which are context-specific. Ms. Buckley continued on to explain three ideas about the issue of resilience, that she hoped could be addressed during the field trip and workshop. The first idea related to the Historic Urban Landscape (HUL) Initiative, which she said is quite holistic in involving natural and cultural processes and looks at the issue of resilience. She said that what is interesting in the HUL Recommendation and the resulting programme, is that it requires cities to look at vulnerability, which is the mirror image of resilience. She continued, explaining her experience working with one city involved in a HUL pilot in Australia, Ballarat in Central Victoria, which used tools provided by the UN Global Compact Cities Programme and helped them to map and assess vulnerability. This is a new tool that we can bring into discussions because, in the case of this particular city, they used it to identify where they were most vulnerable and where they need to prioritize resources for resilience. This exercise has actually changed the way in which they allocate money and people inside the Council structures. The second idea is related to the project that is jointly steered by the IUCN and ICOMOS, called *Connecting Practice*, which is launching Stage III this year and is specifically oriented on resilience in agricultural landscapes. Ms. Buckley added that they are working with the Globally Important Agricultural Heritage Systems (GIAHS) Programme of the UN Food and Agriculture Organization (FAO), a programme well established in Japan. With this programme, they are combining the knowledge that lives strongly in agricultural and food production institutions with ideas of heritage and ecosystem services, an aspect strongly represented through the IUCN's involvement. The third and last idea is related to Intangible Cultural Heritage (ICH) which can be called other names, as some presenters mentioned. Ms. Buckley explained that the transmission of culture is the most important thing in relation to what happens with disruption when disasters occur, it is determinant for the resilience of the place and its communities. The 2003 Convention on Safeguarding of ICH has been working on this and has also developed a Sustainable Development Policy. One issue Ms. Buckley believes will be discussed in the days that come is what Mr. King said about nominations to the World Heritage List requiring a disaster risk management strategy and plan in place. She mentioned that what is generally submitted as management plans within the nominations, is very poorly conceived because the effort of stating the OUV of properties is so enormous for most countries, that all other things they submit are less reflected on. Finally, Ms. Buckley mentioned that big changes are possibly ahead, in regard to World Heritage nominations and how they will be evaluated, because there is a working group thinking on a beneficial change. She closed her intervention saying that we should think about ways of operationalizing some of the ideas that will be talked about during the workshop in order to include them into the nomination process so that better prepared places can be added to the World Heritage List.

Professor Inaba thanked the respondents and then talked about her own experience as an ACA officer before becoming a faculty member at the University of Tsukuba. In 1995, before the 2011 earthquake, there was another big earthquake in Kobe and she was in the ACA working in the section of risk prevention and risk preparedness. At that time, risk preparedness referred to fire risk because Japanese cultural heritage is mostly made of wood. Her task consisted of traveling all over Japan to install water tanks, water guns, and fire alarms. Later, her task was to install safety alarms and other needed devices. Dr. Inaba continued, saying that in the morning of January 17th, she saw the news of what happened, and it was the first opportunity to see how the ACA would react in a major disaster. All telephone lines from Kobe to Tokyo were cut and no information was arriving at the central government offices; therefore, officers in the ACA were waiting and thinking about what to do when it was possible that all of the National Designated Buildings were collapsing. She explained that a person from the Kobe prefecture, Mr. Murakami, after making sure that his house and family were safe, went on a bicycle -cars could not circulate- to all the cultural heritage sites he remembered and collect information that was later sent to the ACA. A week or two later, the ACA sent a team to the site and the residents, who were more concerned about people dying under the buildings, shouted at the team because they were measuring the collapsed buildings. Two years later, they organized an international conference on how to prepare for major disasters, which was attended by Herb Stovel. Dr. Inaba explained that they identified three important issues: the first was how to integrate cultural heritage risk management into the management system; the second point was the need for integration between movable and

immovable cultural heritage; and the third issue was how to prepare the resources mapping. These were the three main lessons learned from the Kobe earthquake and some of these aspects have been integrated into the system, as Ms. Shimotsuma presented. However, Dr. Inaba recalled what Mr. King said regarding the memory of disasters and how we tend to forget the lessons. It is a very important issue, to continue the memory.

Dr. Inaba then commented on the points that caught her attention from the lectures presented. People working in other sectors have a very narrow image of heritage, either natural or cultural heritage. Whenever she goes to an international conference, outside of the heritage community, people seem to not understand what heritage is about. The person in charge of the GIAHS Programme at UN FAO is a Japanese professional from the Ministry of Agriculture, who told her that he is still struggling to understand what heritage people are doing. Dr. Inaba asserted that narrow understanding is a basic problem that prevents us from breaking that barrier, and we need to integrate our system into wider frameworks. The second point she raised is that traditional knowledge is being forgotten. In the past, before modern bureaucracy was installed, traditional villages and their communities had to survive by themselves without protection and, therefore, they created their own water management, landslide management, and mountain resources management systems. However, with the modern government, we have forgotten how to work at community levels. In Japan, everyone relies on the modern bureaucratic system and if the bureaucratic system fails then the community accuses the government. Urbanization is another problem in Japan, there were floods and landslides, especially in new development areas, riverbed, flood bed and others just last summer. The final point she raised was the limitation of modern bureaucracy, recalling what Mr. King said about the World Heritage system being top-down. Maybe at an international organization the idea of the integration is very important, however, once we look at the national level, they are embedded in the existing bureaucratic system and the system cannot be bottom-up anymore. The question would be how to solve the bureaucratic systems, at national levels, where each ministry has a separate legal mandate. She then repeated what Mr. Okuda said about possible cooperation at site levels, where bottom-up and collaboration can happen. Finally, Dr. Inaba mentioned that during the first year of the workshop, participants visited one mountain village, where the differences between nature and culture were not seen by the villagers because they do not know what is considered culture or nature since the two are combined within their daily lives. She wonders how to manage and work the bottom-up and the top-down in this context. Dr. Inaba asked speakers and participants for additional comments on the issues she presented, interested in hearing from the participants on how they might solve the top-down and bottom-up discrepancies in different countries.

Ms. Murti said that some of these issues are currently being reflected up within their office. It is important to be able to challenge ourselves trying to re-examine the issue and acknowledge that people within the field create divides, as Dr. Inaba mentioned, it is not the villagers who separate. We grow up with the nature-culture-people-environment links in our daily lives, however, we then go through an education system where the focus is to become the best of the best in a specialized field, while there are only a few champions trying to work with transdisciplinary approaches. When one becomes a professional, organizations like the IUCN try to fix that divide, because the formal education system does not support the outside world. Ms. Murti wondered how to change this. It is too late when one is already a policy-maker, or a practitioner in the field. Something should be done before one gets to the professional level. The question is how to not undermine specialties while at the same time do not let them become a problem that professionals have overcome to work with others.

Dr. Jigyasu added that even if it is not possible to work things in a holistic way, at the research level there is specialization and not integration and there is a need to look for areas of interface. He clarified that he is not referring to multidisciplinarity, but to cross-disciplinarity and identifying those areas of interface.

Professor Inaba asked if cross-disciplinary research should be done at the university or education level, and **Dr. Jigyasu** replied that he meant at the education level. Professor Inaba asked the roundtable discussants if there were more suggestions on how to integrate, in particular at the international level.

Professor Yoshida agreed with Dr. Wijesuriya's comment on resilience, that it is based on nature-culturepeople integration and cannot be separated, referring to the experience after the tsunami at Minami-Sanriku Town. He said that people not only recovered from the tsunami by building a big sea wall, but that they also cooperated with each other to recover their culture and their community through the recovery of fishery, forestry, agriculture, as well as the recovery of culture, ICH of the deer dance or paper craft, which was inherited from the ancestors. He stressed that this kind of educational activity for the younger generation strengthens the community. He added that these are very important elements of resilience; the linkage of nature-culture-people or nature-culture-community is very important for resilience to the next disaster.

Professor Inaba asked how they could develop that ability within the community.

Mr. Okuda replied that he really supported Professor Yoshida's statement. He recalled what Mr. King said about the World Heritage system being top-down with very strong criteria based on a scientific basis, evidence-based, that may not be relevant for local people. However, he thinks that the most important ways to improve resilience is through the bottom-up approach, community-based management, and community-based decision-making systems. He explained that after the tsunami and earthquake in 2011, they found that some communities are very successful at escaping from disasters, communities that are still very strong, revitalizing, and with community-based communication, and strong relationships among the people. However, some communities have lost this kind of relationships and, he feels, without a scientific basis, that those communities struggle more in the face of a major disaster. He suggested researching more and revisiting what has been happening during the actual disaster in these places. The collected information would be helpful in keeping the conversation going on how the conservation of both natural and cultural heritage support resilience. Mr. Okuda added that those communities can then incorporate certain heritage, not only from the cultural perspective, but also the natural perspective, namely, the linkage between culture and nature.

Professor Inaba remarked that even in one country like Japan and in the Tohoku region, each community is different. She added that some could survive but some just died.

Mr. King agreed that even within communities there are differences. When we talk about a community, there is not a single community within one community. He clarified that he agreed in the fact that World Heritage is top-down, and that resilience has to be bottom-up. His question is how to reconcile the differences at a World Heritage site between a top-down process with values being decided first by the country, then by the World Heritage Committee, and what people from the bottom-up would want to do with their heritage. He added that just as the World Heritage system is top-down, the Japanese national bureaucratic system is also a top-down system, even at a municipal level. He agreed that real resilience needs to be bottom-up and that it has to come from different communities that live in the specific area, but the difficult question is how to accomplish this.

Professor Inaba agreed that the modern system is bureaucratic, even at the municipal level, in Japan and maybe in other Asian countries. We cannot escape from this system, which leads to communities forgetting their own survival instincts.

Dr. Jigyasu added that as professionals we also need to see what role we play and if we would approach communities as the persons who will tell them what to do or as facilitators to engage the discussion. He said that he considers that there are some skills that many professionals lack, such as the ability to engage and communicate, and that these softer skills are very critical if we want to get communities on board. He continued, saying that resilience has become jargon and that we should be careful about how we use this term. For example, many politicians have started to use the word 'resilience' very frequently. An example of this are the floods striking Mumbai every second year, where the community has no other way but to deal with them. While some may consider the communities to be resilient, Dr. Jigyasu does not think that this is an adequate example of resilience. He stressed that it is important to get out of the habit of using the term as jargon.

Dr. Wijesuriya shared his experience where there has been both bureaucracy and the voice of the people. He said that he was working for the heritage institution in Sri Lanka, where he was Director of Conservation, when the Temple of the Relic, which is a World Heritage site, was bombed. He mentioned that Herb Stovel had also visited Sri Lanka two years prior and that they discussed the need of having a disaster risk management plan for the site. However, they ultimately did not do anything and two years later the site was bombed and destroyed completely. He highlighted that the people and the communities were so strong and the President of the country, who chaired the working group, gave the instruction that in order to restore and recover the temple the final decision would be made by the Buddhist monks, the religious communities. They were indeed able to recover it quickly by collecting all the money needed. He concluded that there are moments when the community voices are strong, this can happen, but he does not know whether it can actually become a practice.

Professor Inaba agreed that the sense of commitment is a very strong point.

Ms. Shimotsuma commented that, as the World Heritage tends to be top-down, there is a gap between World Heritage and the local community. However, in the case of Japan, she clarified that the system to protect cities is different from the system to protect individual buildings. She said that in the case of individual buildings there is a basic role to be played by the owners or stewards. Alternatively, in the case of protecting cities, this approach is not sustainable. Rather than one party evaluating, the local community would have to recognize the value and, based on that, the plan would have to be created. In that way, the process follows a bottom-up approach. This model is serving as a basis for the conservation of the landscapes. Ms. Shimotsuma talked about the law for the protection of cultural landscapes that was started in 2004, where the ministry in charge struggled to figure out who was supposed to evaluate the landscape. When the regulation was stipulated, they decided that the local community should be in charge of evaluating the landscapes so that an appropriate way to protect them could be developed and made this regulation viable. In the case of Japan, when certain places, like a landscape or a town, have been designated with this bottom-up logic and intend to become a World Heritage location, they have to work on the understanding of the OUV, and a totally different logic comes into play, namely, that a different plan which is dedicated to the World Heritage would be necessary. This creates a double standard, the local logic crumbles when a comparative analysis against the world is completed, which is a requirement of the nomination. Therefore, she stressed that, in the context of World Heritage, these problems would have to be addressed when trying to involve the local community because the different logics create a conflict.

Professor Yoshida mentioned that the founders of the World Heritage Convention understand that the World Heritage lists sites with OUV, but that they also understand the cultural and natural heritage at the national or local level. He recalled that UNESCO General Assembly in its 17th session adopted a recommendation for the protection of the natural heritage and cultural heritage at national level, but people tend to forget about that. He said that in the criteria of the cultural and natural properties at the national level, it is stated that these should have a special value, not OUV, and that the combined works of man and nature appeared both in natural and cultural criteria. He suggested that the drafters of this recommendation, probably the founders of the World Heritage Convention, understand that at the national or local level we cannot separate nature from culture.

Professor Inaba said that even in 1962, the UNESCO system did not divide nature and culture. The recommendation in 1962 (Recommendation concerning the safeguarding of Beauty and Character of Landscapes and Sites) covers both, which, means that the division does not come from UNESCO but from each national system that already had these divisions established. She stressed that this is a major issue because, when looking at earlier drafts of the World Heritage Convention, there was no OUV mentioned and nature and culture were equally combined. She suggested that Professor Yoshida might think that the law for the protection of cultural properties and the National Parks law should be combined.

Mr. Okuda added that the existence of OUV is important. He recalled Article 12 of the Convention, which he considers to be one of the most important provisions, where it is stated that just because a property is not on the list does not mean that the property does not have OUV. He stressed that this is a very important point to be remembered at the local level. When we have discussions in the context of the World Heritage, we are talking about properties with OUV, even when these are not yet on the list. Furthermore, even in the absence of OUV, there could be cultural heritage and natural heritage that is valued locally, so we need to make these distinctions. He continued, saying that when we talk about natural properties, the World Heritage has a set of criteria and we have our set of criteria for designating a national park, although these criteria might differ. He said that it would be ideal if these criteria could be combined. In terms of regulations, national parks in Japan are quite strict in some areas and weak in others. However, in terms of the cultural

properties, the ACA is more advanced in the nature-culture and bottom-up approach and he hopes that there will be a conversion into a single system in the future.

Ms. Shimotsuma commented that there are top-down systems, like the World Heritage, but there are also bottom-up systems that focus more on the protection of towns and landscapes, like in Japan. She thinks that both of these elements can work together quite well. In the case of Japan, they work on the survey in collaboration with communities, identifying the features of the town or landscape, and develop a plan based on those features. By applying this system, there would automatically be agreement, engagement, and participation. When changes are made, they would have to listen to the voices of the various parties in order to find a solution. Through that problem-solving process, they can grow with the community and establish a system, because, when it comes to the protection of towns or landscapes, not everything is always going to go smoothly. She gave the example of how in Japan, at the time of the bubble economy, there were major development projects and now the population is shrinking because of the lower birth rate, causing the community to weaken. In the case of the evaluation, it can be conducted by everybody and this would encourage and support the local communities. She believes that the World Heritage system has a role to play in these processes. In the case of settlements and villages, we should try to think about development and preservation that fits the uniqueness of each site. Ms. Shimotsuma recalled the time when she was a student and her proposal for research on the preservation of landscapes was not accepted, as she was in the architecture department and only architectural history would be accepted, emphasizing that things evolved and are changing.

Mr. King went back to the issue of criteria and the definition of OUV. He agreed in that the Convention clearly says that the fact that a site is not on the list does not mean that it does not have OUV. He recalled how there was a missed opportunity in 2005, when the Operational Guidelines were revised, taking cultural criteria (i), (ii), (iii), (iv), (v), (vi), and natural criteria (i), (ii), (iii), (iv) and integrate them into one set, from (i) through (x). He said that instead of having cultural and natural, it became just (i) to (x) and that was a great opportunity to examine the criteria themselves and look at how these could have been better integrated. It would have been a lot of work to do it, but that it would have been interesting work that could have created a more integrated approach to culture and nature. Instead what happened was that they took the cultural criteria and made them (i) to (vi) and the nature criteria were labeled (vii) to (x), simply changing the order of one of the natural criteria to make it number (vii). Mr. King stressed that it was basically the exact same text and even though he advocated at the time to examine the criteria, the response was that it would be too hard, confusing, and complicate the situation of the sites already inscribed under those criteria. He thought that this was not a problem and that if a site was inscribed with the old criteria they could keep them, but that in future sites this would be a way to create a more integrated process. Mr. King recalled that three to four weeks before this symposium, he was attending the IUCN 40th anniversary in Fontainebleau, and Adrian Phillips, from the IUCN, asked the question of why, when there is one set of criteria, we still refer to cultural sites and natural sites rather than just World Heritage properties. Mr. King concluded that what Mr. Phillips pointed out refers to the need of change in the mindset that Dr. Wijesuriya was talking about. He reiterated that we cannot change our mindsets and that this is the first mindset that needs to change in the World Heritage system.

He raised one last point on management and management plans. He argued that that the fact that the World Heritage Management Plans only focus on the OUV and the criteria for which they were inscribed in the World Heritage List is another mistake. No site exists that does not have natural aspects, in one way or another, and conversely, he thinks that it is possible that there are not many natural sites that do not have some cultural aspects. He gave the example of the city of Rome, which is a cultural site but also has a river running through it which, although not in its natural state, is still natural heritage, with forests, gardens, and landscapes around. In this way, there are always natural elements to cultural heritage sites. He stated that we need to incorporate all those values into management plans, which would also solve the problem of the top-down vs. bottom-up approaches. Namely, even if OUV is decided at the level of the State Party and then at the level of the Committee, that is top-down, if the management plan deals with all the values of the site, whether is the OUV, or whether is the value of a particular community or a particular person or a particular family, then it could be a tool for managing both natural and cultural heritage, with OUV, or valued at national level, or at the local level. Mr. King asserted that this is the key and also holds true for disaster risk planning.

Professor Inaba mentioned that the World Heritage is a best model for local heritage systems and therefore, it should not separate so strictly. Currently the evaluation system is too complicated and, therefore, when the municipalities in Japan try to navigate the system it becomes a burden for the local communities. However, she said that the World Heritage is very important. Each country or each local municipality is developing their systems, influenced by international inputs, which represent a catalyst power. She stated that, in order to utilize this catalyst power more effectively, the system needs to be less complicated and the question is how.

Professor Yoshida agreed with Mr. King, saying that in 1993, when the first Japanese natural heritage was inscribed on the World Heritage List: Shirakami Sanchi Mountains and Yakushima Island, experts of the national parks systems, the national monuments, and the local people did not understand the World Heritage system. He said that after the evaluation and the recommendation of the World Heritage Committee, in the case of Yakushima, local people located the OUV on the big cider trees, which are visited each year by more than 90,000 people. However, recently, people and the community have recognized that there are other values which are not part of the OUV but that have special values for the people of the island. For example, the local community recognized the traditional custom of climbing up to the top of the mountain to bring the sea water to a very small shrine and pray for the safety of fishery. This custom is being revived again and recently, in 2016, the Biosphere Reserve (BR) was expanded to the whole island, considering the World Heritage as the core area. The BR was used as a transition area in order to recognize both the OUV and the special values for the local community. He stressed that this re-evaluation of the universal value and the local value is very important for the local community.

Professor Inaba remarked that the issue of local values is a very important point of the World Heritage nomination process, at least in the case of cultural heritage. The designation of World Heritage sites is divided by typologies, such as historical buildings, archaeological sites, gardens, and others, which reflects in the unit divisions between officers and researchers who focus on each one of these typologies. She noted that in order to nominate a site for the World Heritage, all these existing values need to be combined in order to become one story or one narrative, affirming that this process was very useful in breaking the divisions between archaeologists, architects, and others. She noted this as a positive point because she is involved in facilitating the discussions among experts, local governments and communities. She wondered if such divisions exist within the natural heritage sector, which depends on a typology or similar kind of categorization.

Professor Inaba recalled that two officers of the Ministries are present in the roundtable, so she proposed to develop the discussion about the system in Japan. In Japan, the management of the land is divided into two large ministries and she noted that neither of the guest speakers worked for the Ministry of Agriculture, Forestry and Fisheries (MAFF) or for the Ministry of Land, Infrastructure, Transport and Tourism (MLIT). Those are the two Ministries that have the power to control the land and budget and that this may be the reason behind why the Disaster Risk Plan was controlled by their officers at the national level. She asked the speakers how much those ministries perceive the importance of natural and cultural resources.

Mr. Okuda has noticed that since he now works on disaster related matters, when he participates at the National Government related conferences and they talk about disaster prevention, the focus is placed on the protection of assets and people's safety. He said that there has been a gap and that he hopes that they will be able to have a discussion on the matter of cultural and natural heritage inside the government. One important development is that the MLIT, which is in charge of the infrastructure, has started to focus interest on green infrastructure for the purpose of disaster prevention. He mentioned the importance of realizing that the budget for the maintenance of green infrastructure does not exceed the budget for the development of concrete infrastructure. About three years ago, he recalled that they were working on the National Land Management Plan, which incorporated the concept of Eco-DRR; however, there is still a need to think about how to put it into practice. He noted that this is a big challenge, since people tend to focus on having their assets and lives protected, but there is a need to avoid sticking to the concept that everything must be protected. He stressed that if a new way of thinking can be spread, then perhaps the concept of heritage could be integrated as well.

Professor Inaba made the remark that no matter how high the concrete rampant is, there will always be a tsunami that is higher.

Ms. Shimotsuma mentioned a system called the Historical City Building Law, which is in charge of the MLIT, the MAFF, and the ACA. The logic behind it is that when the government designates a cultural treasure, particularly regarding architecture and its surroundings, there are relevant historical buildings that may remain. At the same time, within that area, there are some historical activities; therefore, they would try to develop by protecting the cultural heritage and the historical buildings and activities connected to it. She said that the area would be zoned and that the government would also provide support to the efforts of the municipalities. Before this law was enforced, there was a major change in the land policy by the government. The policy became quite significant as it was the work of the national government more than that of the local community. She noted that this is a very good example of inter-ministerial collaboration. At the time it was established, the Great East Japan Earthquake occurred, and the MILT had a larger budget than the ACA and were therefore able to conduct the post-disaster needs assessment. Ms. Shimotsuma said that, when working on the policy, they consulted the ACA, which suggested that they do research on the historical suburbs. The MLIT carried out the survey within that framework and because of this, there were areas that were considerably helped. Therefore, she stressed that with this new relationship with the MILT, the ACA is able to do many things that were not possible before. Previously, there was a UNDRR conference where the ACA was not able to position cultural heritage conservation into disaster prevention frameworks within the national disaster prevention policy and that this was due to the fact that ACA officers were reluctant to work with the MLIT. However, she noted, that if a new UNDRR conference would be held at present, more progress and collaboration could be accomplished between the ACA and the MLIT.

Professor Inaba mentioned that, in Japan, land management was divided by old classmates from agriculture departments and architecture departments. She said that Mr. Okuda is a graduate from the agriculture department, and that she and Ms. Shimotsuma came from the architecture departments. She explained that their classmates and friends are scattered among different ministries, the MILT, the MAFF, and the ACA, so they can work together and make changes.

Mr. King asked if this would make it easier to integrate in Japan.

Professor Inaba replied that, indeed, it is good because they already know each other and that they have friends in the different ministries, in the MLIT, the MAFF, or in the MoE. She stressed that they are trained to work together on planning, but that politicians come from a different field, therefore, there is a need to connect them. She wondered if it is the same case for other countries and opened the discussion to the participants of the workshop and the audience, asking if they could share any community problems.

Mr. Xavier Benedict from Chennai, India, introduced himself as a grass-root level worker and an architect, advocating for the conservation of a large lagoon in the south of India. He expressed that he had seen two major disasters in India which appeared on the international news, the tsunami in 2004 and the Chennai floods in 2015, noting that in between there had been many other floods. He raised four points. First, he stated that 99% of the heritage belongs to the local people and that there is no financial model for heritage or financial products that could assist people in conserving their heritage. He gave the example of damaged heritage structures that still need to be reconstructed. He stressed that there is no loan which grants the owners the amount needed to reconstruct it. As a consequence, he has seen how heritage has been demolished and reconstructed with concrete. The second point he referred to was language in a highly diverse country like India. He mentioned that the government works using a top-down system and that, in Chennai, they do not speak the same language as the government, which is the Tamil language. An example he gave was how a policy might say to "plant a mangrove forest." However, he explained that fishermen do not know what the term "mangrove" is, rather, if it was explained in the local language then they would quickly understand the importance of environmental management. He stressed how language is important in communicating heritage issues and that laws and regulations need to be written in the local languages. The third point he mentioned was the problem of the globalized education system, stating the need for a vernacular education system. He emphasized the need of including regionalism within the education system as well as vernacular thinking in order to understand nature. The fourth point referred to climate. He explained that in India there are 29 states and, out of these, 28 are considered to be the Southwest monsoon region and the one remaining region, where he comes from, is the Northeast monsoon region. All of the national policies relating to disasters prevention, as well as other policies and laws, are written for the Southwest monsoon region; he added that the Northeast monsoon region is the least debated in their

parliament. In the example of the 2015 floods in Chennai, the response from the government took four days. This was due to the fact that the government was unable to understand that the rainfall started in Chennai when the rainfall stopped in other parts of India. Therefore, because the rest of the country was dry, they were not able to understand the flood-levels in Chennai. Thus, he remarked, there is the need to have policy created for different climates.

Professor Inaba emphasized that financial support is one of the major problems facing heritage conservation in the majority of countries. She agreed that it is another major problem if the national system does not support the local thinking. In Japan there is support from the government to assist in the conservation of natural and cultural heritage; however, she said that this support is declining. She added that the redistribution of the tax money is an issue and invited other participants to share their countries' situations.

Ms. Irina Pavlova, from Russia working in the Natural Science Sector in Disaster Risk Reduction at UNESCO, mostly focused on the UNESCO Global Geoparks and Biosphere Reserves, said that in this course she is learning about World Heritage. She recalled some of the keywords mentioned during the day, like local community engagement, and problems with top-down approaches. She said that the Geoparks network was already established in 2015 under the concept of Sustainable Development. An example she gave was of the definition of Geopark, where the concept of Sustainable Development is included, under the idea of the protection of ecosystem services and use of these ecosystem services for the protection of the site. She asked how the World Heritage works with these two labels (Biosphere Reserves and Global Geoparks) and how much more cooperation could be foreseen.

Mr. Okuda said that the Biosphere Reserve was the first designation from the UNESCO system that was used in Japan, while the World Heritage was adopted later. He explained that the MoE has been acting as the responsible agency for these two labels. The geopark concept has since been established and in the last ten years, within the MoE, they have started to understand the importance of the concept of the geopark. He added that it has been the Ministry of Education (MEXT) which has overseen the Ecoparks because of their scientific interest and there has not been sufficient coordination with the MoE. He said that inside one site, it is important to utilize the different systems for the preservation of the different values and it would be important to deepen on the understanding of the locals. He mentioned that these three UNESCO systems are being used in order to improve and incorporate them into the management of the national parks in Japan. He added that the SDGs issues have not yet been reflected enough at the Japanese level. He said that the SDGs, rather than being integrated in the policy by the government, are being promoted in many of the activities conducted by the private sector.

Professor Inaba added that in the World Heritage and ICH fields, these designations are useful because Japanese people like a lot the international brands. Therefore, with those brands, it is possible to encourage communities to get together and gather the power, taking the chance to advance the heritage concept.

Mr. King added that from the ICCROM's point of view, the collaboration with other UNESCO Programs does not exist. Just like in the case of ICCROM and how the immovable and movable units were not collaborating, from his UNESCO experience, he also sees that it is not easy to bridge the gaps between the various programs. If there were more possibilities to collaborate in a more substantial way, the work would be much stronger. He recalled the Nara+20 meeting in Japan, in 2004, that was held at the moment when the ICH Convention was signed, and how they were trying to link World Heritage and ICH. However, the outcome was that the UNESCO people dealing with the ICH were not very interested in creating links and stronger collaboration with the World Heritage people, possibly because the ICH people wanted to stand in their own two feet and establish their own frameworks. He added that currently ICCROM is in discussions with the ICH unit at UNESCO in order to develop work on capacity building. He affirmed that there will be possibilities for collaboration) meeting in Kobe, there were also people from UNESCO's culture and science sectors, but there was little collaboration. Nevertheless, it is much better now, and the next step is to sit down and look at the various normative instruments, the various UNESCO instruments, and see how these can work more together. He added that the IUCN may actually be better at this working with the CBD.

Ms. Murti replied that for IUCN is still a work in progress.

Professor Yoshida added that when the first BR was designated in the 1980s in Japan, it overlapped with the National Park, so the impact was not clear, and no special plan was prepared. However, after 2011 a new nomination in Aya town, in the Miyazaki prefecture in Kyushu, came up from the local government and the local community. He clarified that the World Heritage nomination is controlled by the MoE and the Forestry Agency, but the nomination of the BR can come from the local government and communities. In Tsukuba city, the local government is involved in the nomination of Mount Tsukuba to the international Geoparks network since it is already recognized as a national geopark. He stressed that, recently, local municipalities are very interested in the nomination of geoparks and BRs.

Dr. Ishizawa recalled that during the previous year's symposium, Dr. Thomas Schaaf explained the Multi-International Designated Areas (MIDAS), a study conducted by the IUCN and funded by the Korean government. They looked at different case studies of places that have several international designations: BR, Ramsar sites, World Heritage, and Geopark. She said that one of the sites that has these characteristics is Jeju island. This is a document that can be looked at, regarding the management of places that have these different designations, which could also bring together people working with these different brands or systems.

Mr. King added that one of the issues of the MIDAS is reporting. This is because there are a lot of complaints from the State Parties about having to write State of Conservation reports for World Heritage and for others as well. One of the things that is heard from State Parties is that it would be very useful to have one standardized reporting system, where additional information could be added, referring to particular issues.

Professor Inaba agreed that these are the same complains that the Central Government of Japan is receiving from municipalities, that they have to submit reports to the different ministries.

Mr. Wijerathne, from Sri Lanka, commented that he is reading a document, prepared by the presidential task force in Sri Lanka in line with the SDGs of the Agenda 2030, that is the policy framework related to Balanced-Inclusive-Green Growth. He said that, interestingly, the document does not mention anything about culture and cultural property conservation. There are countries, like Sri Lanka, that are struggling with economic development; therefore, their priority is focused on development rather than sustainable development and culture, or cultural heritage management. He asked if there were any plans in place to deal specifically with developing countries where they are still forced to concentrate on development. He affirmed that there are plans and heritage management systems in Sri Lanka, but these are not given equal importance and he wondered if ICCROM or UNESCO had a special approach for developing countries.

Professor Inaba mentioned that even the United States is changing its policy and asked Mr. Wijerathne to hold the question, as she invited the audience to take a coffee break.

After the break, **Dr. Wijesuriya** clarified that the last question could be separated into two further questions. The first question was about understanding how different countries are integrating the Agenda 2030 into their national contexts. He recalled that after Agenda 2030 was adopted and the SDGs were developed - with one in particular dealing with cultural and natural heritage (SDG 11)- these were then translated into national policies. He explained that Mr. Wijerathne has not seen culture integrated into the national policy of his country and wonders if other countries have integrated the target 11.4. The second question was about UNESCO adopting the policy and if any country is pushing this, in the World Heritage context, in their World Heritage management plans and so on. He mentioned that this is something that has been discussed at all of the ICCROM courses since 2015. In terms of World Heritage, some of these things are integrated into the periodic reporting questionnaires that the State Parties respond to. Dr. Wijesuriya emphasized that the question was if there are any countries or examples where the SDGs have been converted into policy and culture has been integrated and then whether the UNESCO policy has been integrated.

Ms. Buckley said that it is important to acknowledge that these are the early days of this important shift. She recalled that the old Millennium Development Goals, which ended in 2015, did not mention culture or heritage at all, and certainly there was no linkage even hinted between nature and culture. She added that when the UN was moving towards the renewal of those goals, there was a great campaign between many different organizations involved in natural and cultural heritage and led by UNESCO, called "the future we

want includes culture." However, this campaign was not very effective, and they made many suggestions throughout all the SDGs, a few changes were incorporated but many were not. She insisted that this is a very slowly evolving recognition of knitting the goals and it is not surprising that at a national or institutional level, and subnational levels, this is not yet reflected. Nevertheless, she acknowledged the power of multilateral agreements, asserting that the top-down method can work very well at the level of policy rhetoric and that it takes time, especially since these are new ideas in the global system. She added that a lot of work is taking place within every organization to try to grasp the SDGs and make concrete and measurable progress. She said that everyone has to push and that we all push in the institutions where we work.

Professor Inaba mentioned that while preparing a World Heritage nomination dossier in Japan, they have to prepare the management plan. The local authorities are not unwilling to include the SDGs, but rather, their question is always how and what kinds of things need to be included; therefore, some break down is very useful.

Dr. Wijesuriya added that ICOMOS has a group working on developing indicators for the integration of the SDGs into all processes. Already in the nomination dossier, one is required to think about including the SDGs in the management plan.

Professor Inaba consented that this requirement is already in the nomination dossier and local authorities are trying to understand what that means and how to develop it.

Mr. Hoseah Wanderi, from Kenya, referred to Mr. Wijerathne's (Sri Lanka) question. He stated that the Kenyan experience is that once the World Heritage policy was developed in 2015, they took it up very fast and domesticated it in order to fit the Kenyan situation. He added that what remains is the official adoption by the relevant ministry, the Ministry of Heritage. They submitted the document in April last year but are still waiting for it to be adopted as a legal document for use in Kenya. He also asked about the case of the reconstruction of the Tohoku region, if they were planning to leave the landscape as it is now after the disaster or if they are planning to do any kind of reconstruction. Also, he wondered whether, when we are talking about resilience, we are talking about resilience from the point of view of the living communities or the heritage itself.

Professor Inaba said that many people that were relocated after the disaster are now going back to the places where they used to live, and therefore, some reconstruction is needed. However, others have not decided to go back, and hence, not every area needs to be rebuilt. She asked Mr. Okuda about the general tendency.

Mr. Okuda responded that he did not present the actual implementation of the rehabilitation project, but rather gave an example of places where local residents used to be settled very close to the sea and have now decided to move to higher places outside of the National Park. He said that there were communities settled within the National Park, who wished to restore the areas more naturally as wetlands, therefore, the focus is placed on restoring nature and special landscapes. However, he mentioned, there are other places where the local people have decided to stay, living very close to the coast, and in those places the local government has requested creating big walls on the seashore. He added that, according to the national law, the MoE must allow those safety constructions for local residents. He concluded that there is still conflict about how to rebuild or reconstruct these areas and the MoE is focusing on incorporating the idea of living in harmony with nature as a vision, by creating the National Park.

Ms. Irina Pavlova commented on Mr. King's presentation and how, on the survey on World Heritage and Disaster Risk Management (DRM), only 10% of site managers responded that they have elements of DRM at their sites. She asked what tools would be used for the other 90%. She also recalled how, in the periodic reporting exercise, some site managers responded that their sites are vulnerable to all types of hazards, and therefore, they are unable to understand the specific risks and vulnerabilities of their sites.

Mr. King said that there are different requirements for site managers and for countries, in relation to the World Heritage sites, one of which is a management plan. However, a lot of sites do not have a management plan, much less a disaster risk management plan, and many sites do not even have a visitor or tourism

management plan. He stressed that there are a lot of things that a site should have, some of the sites have them and some do not. He clarified that part of it is related to their immediate and evident needs. He then gave the example of a site in Uganda, called Kasubi tumbs, which had a management plan. ICCROM worked on it with the Ugandans when the site was inscribed and then they updated the plan 8 years later. In both plans it was clear that a DRM plan was needed, however, it was never developed. He said that two years later, the tombs, a large structure made of thatch, went up in flames because they had not enforced the plan and they had not put the fire pressure system into place. He insisted that there are many requirements, but it is hard to follow-up and go to every one of the 1092 sites. Therefore, he affirmed, that it is the responsibility of the State Party to ultimately ensure that it complies with those requirements. He reiterated that the best that they can do is capacity building with site managers, with focal points in the countries, and with experts within the countries and try to do that as much as possible. He added they now do an international course every year in Kyoto, the first aid course (FAC) and other activities; however, he insisted that to reach all 1092 sites, they would need more resources and financial support.

Dr. Jigyasu added that although the DRM plan seems to be an additional document to be prepared, an additional task for site managers, there is a misperception among people. It is more important to not think of it as one DRM plan, but to slowly try to do small things, little things which are part of the day-to-day management practice. He added that risks are reduced if the daily maintenance and monitoring are well performed. The DRM and the management plan have many aspects in common, and he recommended making site managers more comfortable by doing small things that they will know are helping to reduce risks in the long term.

Professor Inaba commented that when a World Heritage site manager in a mountain village of wooden structures requested that they install an automatic fire alarm and water extinguisher, they asked him to be alert himself about a fire and extinguish it. She mentioned that it is not so much about the machines but people's daily care. She invited the audience to comment before closing the session.

Mr. Kevin Macarius Florentin, a student from the University of Tokyo's Sustainability Science Department, said that in his department they try to approach Sustainable Development problems and that he advocates for heritage in the disaster field. He commented that one of his research preliminary findings was that there are difficulties in the SDG Agenda regarding the integration of culture because of the difficulty of quantifying heritage and the unavailability of indicators to measure the progress in heritage preservation. He asked about how to better explain the values of heritage to people who do not have the heritage educational background.

Mr. King responded that there are some things that can be quantified and many that cannot. He remarked that the indicators set up for the SDG 11.4 are not useful. He added that there is a need to go beyond, to figure out ways of telling the stories and to give quality, not quantity, indicators, that will actually be able to convey what needs to be expressed. He mentioned that there needs to be more work with statisticians and economists to try to figure out how to do that. He added that he refuses to turn everything into money because one cannot quantify in that sense and we need to figure out ways to do that qualitatively.

Ms. Buckley answered that besides the quantitative issue, there is another problem with data. It is that indicators need to be found which could be applied across the whole world and across natural and cultural heritage, which is vast. She clarified that what happened to the 11. 4 indicators are that the UN Statistical Commission oversaw what went in these indicators and it was based on where the data could be collected from. She added that the problem with quantitative data in these big exercises is that we end up measuring the things that we can measure rather than measuring the things we want to know about. She urged everyone to give more attention to qualitative data collection methods, which she thinks would work better for heritage matters. She mentioned that there are countries that have tried using both qualitative and quantitative measures, particularly in state of the environment reporting. For example, she said that Australia includes cultural heritage in their state of environment reporting, as well as some other countries, and she said that they are looking for evidence of a trend, which she thinks it is not impossible to get. She added that evidence of trends is what we often need to prioritize policy and resourcing of important programs. She concluded that there is more work to be done on this issue.

Professor Inaba noted that in order to persuade top politicians, one has only one minute to speak. She emphasized that the question is how to explain what to do, in one minute, to Shinzo Abe (Prime Minister of Japan). She explained that this is how they can get a budget from the ministry, so Mr. Okuda and Ms. Shimotsuma are trained to do that one-minute-speech in front of ministers. She finally thanked everyone and closed the roundtable discussion, inviting Professor Yoshida to give his final remarks.

Professor Yoshida concluded from the symposium that in order to strengthen resilience to disasters, we have to overcome the nature-culture divide, the tangible-intangible divide, as well as the institutional divides, and he asserted that the discussion was very fruitful in reflecting on these problems. She thanked the guest speakers, Ms. Murti, Dr. Jigyasu, Mr. Okuda, Ms. Shimotsuma, and Mr. King, as well as Dr. Wijesuriya and Ms. Buckley for joining the discussion.



Group photo of the Third International Symposium on Nature-Culture Linkages in Heritage Conservation during the Tsukuba Global Science Week 2018.



UNDERSTANDING NATURE-CULTURE LINKAGES IN THE CONTEXT OF DISASTERS AND RESILIENCE

Module Two consisted of three days of intensive lectures, group discussions, and participants' case study presentations, from September 22 to 24 at the University of Tsukuba. The lecturers shared theoretical and technical knowledge regarding heritage conservation, disasters, and resilience, from both the natural heritage practice and the cultural heritage practice. They also talked about practical examples where they have worked. The participants presented a total of fifteen case studies in the three sessions: seven UNESCO World Heritage sites, three on the tentative lists of their respective countries, one UNESCO Biosphere Reserve, three sites protected at the national level, and one UNESCO Geopark.

The first day Dr. Gamini Wijesuriya, former Project Manager at ICCROM – Sites Unit, presented a lecture on the evolution of heritage conservation into people-centered and nature-culture linkages approaches. Dr. Wijesuriya first described his work at ICCROM and the role of the organization in the training of heritage practitioners and specialists in conservation techniques and management. He emphasized that heritage is an evolving practice where exchange is instrumental. He then explained how the conservation of nature moved from the concept of isolation of natural areas to ecosystems-based approaches, where the interrelations of humans and nature are now valued as positive for biodiversity conservation. The conservation of cultural heritage has also shifted from a monument-based approach, that was criticized for the idea of "freezing monuments," to people-centered approaches, where heritage becomes an instrument for the sustainable development of communities by recovering functions at the core of communities' everyday lives. Dr. Wijesuriya described how the implementation of the World Heritage Convention accompanied this evolution. It was a pioneering instrument in advancing the conservation of heritage which involves and contributes to a community's' well-being. Moreover, including both the conservation of nature and culture, Dr. Wijesuriya explained how the World Heritage Convention has allowed a nature-culture approach to heritage conservation to emerge. Initially, with the inclusion of cultural landscapes as a category within the Operation Guidelines, and increasingly, with the common work being developed by the Advisory Bodies to the Convention, the practice is moving towards a new paradigm, where nature, culture, and people would be integrated into a single concept of conservation, with no boundaries. He emphasized the importance of traditional knowledge and, other than Western traditions where the nature-culture divide is not present, and how these traditions are now being reexamined. He also recalled the different international instruments that have been developed and how heritage conservation is now embedded in the UN Agenda 2030. He mentioned the UNESCO Policy for Integrating a Sustainable Development Perspective into the processes of the World Heritage Convention, adopted in 2015, and emphasized that it is an important instrument that needs to be adapted by practitioners at their sites. Dr. Wijesuriya insisted on the importance of the paradigm shift "from care of heritage to that of pursuing the wellbeing of both heritage and society as a whole" and recalled the 2017 Delhi Declaration on Heritage and Democracy by the 19th ICOMOS General Assembly, where the organization commits to a "people-centric culture specific approach" for heritage conservation and sustainable development.

Subsequently, Ms. Kristal Buckley, a lecturer at Deakin University and an ICOMOS World Heritage Advisor, introduced the concepts, processes, and critical issues of the implementation of the World Heritage Convention. She talked about the work of ICOMOS in this context, explaining the basic concepts of the Convention, the process of nomination, and the concept of outstanding universal value (OUV), putting special emphasis on the clarification of the latter's core concepts: criteria, integrity, authenticity, and management plans. She also talked about the listing system as well as the monitoring and reporting systems. She continued, explaining what is new in the World Heritage system and mentioned some recent initiatives, such as the World Heritage Leadership Programme, a joint endeavor of the IUCN and ICCROM which is funded by the Ministry of Climate and Environment of Norway as well as the Connecting Practice Project,

another shared venture of ICOMOS and the IUCN, funded by the Christensen Fund, both of which have led to the development of the Nature/Culture and Culture/Nature Journeys. Moreover, she mentioned the recent rise in conflicts and how these affect heritage conservation and procedures, recalling some emblematic cases where political differences impacted the World Heritage system, such as the Mostar Bridge in Bosnia, the Preah Vihear Temple on the border of Cambodia and Thailand, and the damages to the cultural heritage in the Middle East. She talked about the development of right-based approaches to heritage, the evolving notions of authenticity, the direct engagement of civil society during the World Heritage Committee Sessions, the initiatives to tackle climate change, and the importance of the sustainable tourism programme. She commented on the 2011 UNESCO Historic Urban Landscape Recommendation, that was also a result of the work of World Heritage professionals, describing how this recommendation has been used in the planning of Ballarat city in Australia, an emblematic case study of the HUL approach.



Ms. Kristal Buckley (Deakin University/ICOMOS) and Dr. Gamini Wljesuriya (former ICCROM) wrapping up after their lectures.

After the lectures, the participants were able to ask questions and continue the conversation with both lecturers. There were questions regarding OUV, authenticity, buffer zones, and other terminologies of the Convention. Moreover, participants requested clarification regarding the relationships between Ramsar sites and World Heritage. Other controversial topics included funding and political issues, the imbalance of the list and the issue of gentrification within World Heritage sites due to mass tourism.

During the afternoon session, five participants presented their case studies and received feedback from the resource persons:

1) Rohayah Che Amat, a Senior Lecturer at Razak Faculty of Technology and Informatics from the Universiti Teknologi Malaysia, Kuala Lumpur, presented "Historic Cities of the Straits of Malacca UNESCO World Heritage Site: Threats and Challenges." She described the OUV of the historic cities in Malaysia, Georgetown and Melaka, which have been inscribed on the World Heritage List since 2008 under criteria (ii), (iii) and (iv). She talked about the problems arising due to development projects, especially in the seaside of these port-towns. She further made clear how these projects would increase the vulnerability of these cities, mainly to flooding. She suggested that disaster risk management plans need to take into consideration a landscape approach for the conservation of this World Heritage property.

- 2) Hoseah Wanderi, a researcher at the Directorate of Antiquities Sites and Monuments of the National Museums of Kenya, presented "Lamu Old Town: Balancing economic development with conservation of heritage," a World Heritage site since 2001 under criteria (ii), (iv) and (v). He described the values of this site, both cultural and natural, as well as related the intangible cultural heritage of the Swahili local communities. These communities maintain certain traditional practices for fishing as well as for holding festivals, which shows the strong interactions between nature and culture in the area. On the island of Lamu, mangrove forests and sand dunes provide a habitat for a diversity of flora and fauna. He stated that development projects are menacing the cultural and biological diversity of the Lamu historical coastal town and the island. Furthermore, he said that climate change is threatening the island, where the town is located, because of the expected rise in sea-level. He detailed the threats to the World Heritage site and suggested that a disaster risk management plan and the preparation of local communities are necessary to confront the challenges that Lamu Old Town will face in the future.
- **3)** Huaiyun Kou, an Associate Researcher at the Tongji University, China, presented "Post-earthquake Redevelopment of Dujiangyan Ancient Town in Sichuan Province, China." She explained that the Dujiangyan Ancient Town is a "National Famous Historic and Cultural City" in China, it was designated in 1994 and is located in the buffer zone of the World Heritage site, Dujiangyan Irrigation System, which was inscribed in 2000. She described how the area has been affected by the rapid urban development since the 1980s as well as the 2008 Earthquake. The challenge of the reconstruction project was that it confronted heritage conservation with the upgrading of the infrastructure. She added that the redevelopment project resulted in the transformation of the function of the area from residence and commerce to tourism services, decreasing the population of the town from 15,000 to 2,000. The town is vulnerable to several natural hazards, such as earthquakes, mudslides, humidity, and insect pests. She suggested that to include a nature-culture approach to the management of the World Heritage sites and their buffer zones, academic research should be interdisciplinary and contribute with both qualitative and quantitative data that can support the local management and comply with international organizations standards.
- 4) Bohingamuwa Wijerathne, a Senior Lecturer in the Department of History and Archaeology at the University of Ruhuna, presented "Matara and Galle Forts: Coastal Cultural Heritage Conservation from Matara Fort to Galle Fort in Southern Sri Lanka." He described coastal heritage sites in Southern Sri Lanka: the Old Town of Galle and its Fortifications that has been a World Heritage site since 1988 under criteria (iv), and the Matara Fort which is protected under national legislation. He explained that both sites were built by the Portuguese and are characterized by the juxtaposition of historical layers due to the occupation of different European colonial powers. He showed that the Southern Coastal belt, the area where these sites are located, is rich in natural and cultural values but is also vulnerable to natural hazards. Moreover, he said that vulnerability is increased by the tourism infrastructure development. These heritage sites were affected by the tsunami in 2004 and his research was focused on the impacts on the cultural heritage. He emphasized the importance of living traditions and the interrelations between nature and culture which need to be considered for disaster risk prevention and post-disaster recovery. He stated that even if cultural heritage conservation has been well established in Sri Lanka, there is the need for the integration of disaster risk management approaches and culture perspectives into urban planning. He concluded that more capacity building is needed.
- 5) Mohammad Sazzad, an Associate Professor in the Department of Architecture, at MIST, Bangladesh, presented "Integrated approach for disaster resilience & management at Mahasthan heritage site." He explained this archaeological site which has been on the Tentative List of Bangladesh since 1999, as Mahansthangarh and its Environs. He showed how the archaeological site is exposed to natural phenomena that may damage the structures. He explained that the site could be protected by recovering the ancient waterways and involving local communities in its protection.

During the first day of the workshop, the case studies dealt with urban areas and archaeological sites that are connected to the sea, rivers, and irrigation systems, showing the interrelations of the cultural heritage with the natural environment. Challenges discussed were the rising sea levels and regular floods as well as earthquakes and the lack of disaster risk management plans at the sites.

After the presentations, participants discussed the following questions in groups:

- Why are nature-culture linkages important to heritage conservation?
- How do the existing international and national frameworks either enable or constrain holistic approaches that link nature, culture, and people?

Answering the first question, all of the participants' groups presented that they agreed that heritage itself represents linkages between nature and culture. Some stated that cultural heritage is found in natural settings, that nature is the context for cultural evolution, and that nature is constantly influencing culture and, therefore, these are closely linked. Moreover, they recalled the importance of ecosystem services and nature-based solutions in order to protect cultural heritage from disasters. Participants understood that culture evolves along with nature and that heritage is also evolving and, therefore, consider these linkages as necessary for heritage conservation. Furthermore, they mentioned that traditional knowledge is the representation of the relationship between culture and nature, which also implies that spiritual and religious aspects connect nature and culture. Therefore, all participants coincided in their agreement that combination and integration in conservation is important, especially because at local levels distinctions between nature and culture are not present. They considered that while the separation becomes necessary when analyzing and conducting academic research, heritage itself is the representation of a place with humans and non-humans, and thus, the division does not make sense.

Regarding the second question, participants also agreed that it is important that the international discourse is changing. This is especially true in the development of the SDGs, and the progress of linking the work of different sectors as well as in the inclusion of traditional knowledge, though further exploration is needed regarding traditional and local knowledge. Nevertheless, they found that in the international level legal frameworks there are discrepancies, and in the conventions, there are clear distinctions.

Furthermore, some participants stated that there are constraints at the conceptual level, due to the different disciplines and languages used to address the same conservation problems. They added that political issues, such as confrontations between environmental conservation and economic growth, are limiting the promotion of nature-culture linkages. In academic research there is a clear division or even disconnection and there is a need to look for a base of common understanding.

However, they also recalled the example of the Sanriku Fukko Reconstruction National Park and how the Japanese authorities collaborated in the recovery of the Tohoku region after the Great East Japan Tsunami and Earthquake in 2011. Yet, not all countries demonstrate such collaborative approaches at the national government level.

They mentioned the need for a simplification of frameworks, but at the same time that these can be contextualized and site specific. They added that nature-culture guidelines at international levels could be useful.

All groups noticed the big challenge in communicating conservation ideas with the local people and the difficulties of using a top-down approach. There was a general agreement that there is a need to empower people and local communities. This is so that the seeds of understanding nature-culture linkages grow from the bottom up because the concepts of nature and culture are so integrated at the local level.

Resource persons summarized the findings, noting that at local levels there is not a divide and that the limitation lies in the legal systems and the institutions in charge of heritage conservation. However, they also remarked that it is necessary to identify specific components that can help address the gap, taking little steps, because we cannot wait for all systems to be perfect. Proactiveness in looking for ways to implement this approach is key.

On the second day of the workshop, **Dr. Rohit Jigyasu**, the UNESCO Chairholder on Cultural Heritage and Disaster Risk Management, Ritsumeikan University, ICOMOS Vice-President and ICORP President, presented **"Disaster Risk Management for Cultural Heritage."** He focused his presentation on key concepts and principles in the context of disaster risk management. He illustrated these concepts and principles with several examples of disasters, explaining the underlying reasons for the damage to the cultural heritage.

He recalled the definition of disaster, which occurs when the coping capacity is exceeded and, therefore, there is a need for help because the event gets out of control. In disasters losses are very large and their consequences are as well. He clarified that the time frames of disasters may range from hours to months and that it is difficult to establish its starting and ending points. He focused on the different types of vulnerabilities and how these are increased. Physical vulnerability can be increased through exposure due to location, the sensitivity of materials, and constructions, as well as the ineffectiveness and lack of management (maintenance and monitoring). He noted that physical vulnerability may actually be increased by restoration and conservation works and other interventions. He added that in some cases, physical vulnerability is not caused by infrastructural problems but rather that the design and nature of a site. He explained that at some sites, there is a combination of hazards and the impacts are larger. He noted that restoration work is the major cause of fire in historic buildings and that vulnerability can be created by technology. He clarified that there are other inherent vulnerabilities in cultural heritage related to the nature of their location and materials sensitivity. As well, there are vulnerabilities that go beyond the physical, such as socio-economic conditions, institutional, and policy frameworks, and he added that the problem of people's attitudes, such as perceptions and religious beliefs, can prevent them from following policies and guidelines. He gave some definitions of resilience (Holling, 1973: environment bouncing back; Folke et al. 2002: related to society; Mileti, 1999: moving to disasters; Pelling 2003: ability to cope and adapt; and the UNISDR 2003: ability to recover). He concluded that the different phases in disaster risk management need to be interconnected: before a disaster there is need for prevention, mitigation, preparedness, and adaptation; however, during a disaster, emergency response and first aid are key; after the disaster the focus shifts to recovery and rehabilitation.



Left: Ms. Radhika Murti presenting about Ecosystem based DRR. Right: Dr. Rohit Jigyasu presents about Disaster Risk Management for Cultural Heritage.

The second presenter of the day, Ms. Radhika Murti, Director of the IUCN Global Ecosystem Management Programme, gave a lecture on "Ecosystem-based Disaster Risk Reduction: definitions, implementation and gaps." She started her presentation by explaining the potential of using the Eco-DRR approach in the conservation and management of World Heritage sites. She mentioned the restoration of slopes, the revitalization of historical water systems, and the conservation of wetlands as examples of Naturebased Solutions for protecting landscapes and preventing disasters. Furthermore, she demonstrated how the investment in ecosystem services is more efficient, effective, and economical than investing in grey infrastructure. She remarked that heritage has been created in relation to the natural conditions of their locations and using the natural events as part of the design. Therefore, she pointed out that in order to conserve heritage, it is essential to go back and analyze how it was used, designed, and re-use. After this, she gave examples where the damage in the ecosystem, ecosystem services, and green infrastructure, have increased the damages by disasters. As well, she gave examples where forests, wetlands, and islands worked as protective natural structures against hurricanes and tsunamis. She explained how disasters have been used to leverage attention from governments, encouraging them to invest in the conservation of nature, in order to prevent and reduce the impact of disasters. She mentioned the case of the Sanriku Fukko Reconstruction National Park as an example of how to use Nature as a solution to both promote economic development through eco-tourism and conserve nature and the natural protection of the coast of Tohoku. She defined Eco-DRR as: "Sustainable management, conservation and restoration of ecosystems to provide services that reduce disaster risk by mitigating hazards and by increasing livelihood resilience" (PEDRR, 2013). She explained that Eco-DRR can support disaster risk management in all its phases, by taking ecosystems into consideration in risk and vulnerability assessments, by conserving, revitalizing, and restoring ecosystems in the disaster risk reduction and preparedness period, and focusing on the restoration and recovery of ecosystems, like wetlands or forests, in the relief, early recovery, and reconstruction processes. She highlighted the need for hazards and vulnerability assessments, both for social and ecological aspects, especially in a context of climate change, and recommended some existing tools, such as the Climate Resilience Evaluation for Adaptation Through Empowerment (CREATE) and the IUCN Red List of Ecosystems (RLE). She gave some examples of the use of CREATE in African countries, like Senegal and Burkina Faso. She also explained how they use the RLE to evaluate the role of ecosystems in disaster risk reduction, such as forests as stabilizers for slopes, the wetlands and floodplains as controlling floods, or the mangroves, saltmarshes, and sand uses as buffers for wind, sandstorms, or storm surges. She referred to two existing guides, published by the IUCN: "Protected Areas as Tools for Disaster Risk Reduction" and the "Safe Havens: Protected Areas for Disaster Risk Reduction and Climate Adaptation." After giving several examples of how Eco-DRR is being used for recovery and reconstruction, she emphasized the need of including traditional and scientific knowledge to create policy frameworks for disaster risk reduction. She finalized by saying that there is the need to make exchanges with the culture sector, explore more on how nature-based solutions can contribute to cultural heritage, and look at how cultural practices can help nature.

After the lectures, five participants presented their case studies:

- 1) Jefferson Chua, the Project Coordinator for the World Heritage nomination for Mayon Volcano Natural Park, Philippines, presented "The Mixed Heritage Values of Mayon Volcano Natural Park and the Place of Narrative in Disaster Response." His study focused on the 2006 disaster brought about by the effects of Typhoon Reming/Durian on the communities surrounding the Mayon Volcano, the government's response, and the possibilities of making cultural and natural heritage protection an essential resource in disaster mitigation. He explained that the typhoon, the ensuing lahars, and landslides claimed 1,266 lives when the dikes designed to mitigate the effects of flooding were not able to withstand the volume of the displaced volcanic material which had built up because of the recent volcanic activity. He said that the measures taken, and the subsequent government response, showed that, while there were adequate mechanisms in place to address individual disaster scenarios, the 2006 disaster demonstrated the need for a more holistic understanding of vulnerability, disaster response, and mitigation. He suggested that this can be achieved by incorporating heritage values into disaster mitigation policies, especially for a site like Mayon where cultural and natural values are inextricably linked to each other.
- 2) Petrayuna Omega, a lecturer and researcher at Krida Wacana Christian University, Indonesia, presented "Disaster Risk at Permanent Residence in Siosar Protected Forest: A Preliminary Study." He explained that the Indonesian government used around 416 hectares of the Siosar Protected Forest, owned by the Forestry Ministry, for residential and farming area in order to relocate three villages affected by the 2016 eruption of Mount Sinabung. He said that problems have emerged as this protected area is being used as the relocation centre for the Mount Sinabung refugees. He said that even though the government has already developed some disaster risk reduction plans, it needs to take a new step in order to involve all the stakeholders, including the community. He suggested that "gotong royong," a traditional practice used for communal work, could be used to implement the disaster risk reduction plans. Moreover, he considers that awareness needs to be raised and that more inclusion of the diverse stakeholders in elaborating and implementing disaster risk reduction plans is instrumental to conserve both nature and culture in this area.
- 3) Hongtao Liu, the Director of World Heritage Research Center in Southwest Jiaotong University, China, presented "Recovery of Traditional Tibetan Villages Post Earthquake in World Natural Heritage Site Jiuzhaigou Valley." He based his presentation on his survey of the damage and recovery status of Tibetan traditional villages in Jiuzhaigou World Natural Heritage after the earthquake in 2017. He explained the situation of the Tibetan villages following the earthquake as well as the problems caused in the process of recovery. Moreover, he stressed the importance of the conservation and development of the villages which show the features of traditional Tibetan architecture, observing that some of these are located in the vicinities of natural protected areas. He emphasized the relationship between the cultural and the natural heritage as well as the development problems heritage communities face. Finally, he stressed the requirements for disaster prevention and mitigation in these traditional villages and in the Natural World Heritage site, as well.

- 4) Thao Le, head of the secretariat of the Cu Lao Cham-Hoi An Biosphere Reserve in Vietnam, presented "Nature-Culture Linkages in the Cu Lao Cham Hoi An World Biosphere Reserve." He said that the Cu Lao Cham Hoi An World Biosphere Reserve." He said that the Cu Lao Cham Hoi An World Biosphere Reserve (CBR) was recognized by UNESCO in 2009 based on natural and cultural values. He added that, at present, these values are facing challenges from disaster threats and social-economic development. For instance, he explained that this area is prone to heavy typhoons and floods, which are impacting the ancient town- a World Heritage site since 1999 and part of the buffer zone of the CBR. These disasters have provoked the collapse of river banks and also eroded beaches. He said that the sediment and pollution from the mainland are attacking and killing coral-reefs and seagrass beds. Furthermore, he mentioned that there are many development and investment plans in the coastal areas, which are provoking changes to the natural morphology and fragmenting the aquatic habitat, altering the wildlife cycle. However, he explained that the CBR management has been innovative in harmonizing the natural and the human ecology, as was seen with the Marine Protected Area which connected the Hoi An ancient town through effective zoning and management.
- 5) Irina Pavlova, a consultant at the Geohazard Risk Reduction Programme at UNESCO, presented "Natural UNESCO designated sites as platforms for disaster risk reduction." She explained how UNESCO-designated sites (World Heritage sites, Biosphere Reserves, and UNESCO Global Geoparks) promote sustainable development and focus on the protection of natural and cultural heritage or the conservation and sustainable use of biodiversity and geological resources. She said that more than 2000 UNESCO-designated sites may be partly or entirely exposed to natural hazards and extreme weather events, with potential impacts on the communities living in or near the sites, and on their livelihoods. She emphasized that, because of their high cultural and symbolic value, the impact of the loss or damage of a UNESCO-designated site can resonate across the world and she added that these iconic sites have tremendous potential as platforms to share knowledge on Disaster Risk Reduction. She said that many UNESCO-designated sites have community and tourism-oriented programmes that can help to raise awareness about the source of natural hazards, associated risks, and ways to reduce their impact.



Left: Mr. Jefferson Chua, Philippine National Commission for UNESCO, presenting a case study of Mayon volcano, a site preparing its nomination for the World Heritage List. Right: Mr. Omega, Petrayuna, Krida Wacana Christian University, presenting the case of Siosar Protected Forest in Indonesia.

The case studies presented on the second day clarified how the interrelations between cultural and natural heritage can be useful for disaster risk reduction. It was emphasized that having a territorial and ecosystem view of the landscape is needed in order to understand the natural phenomena and their connections to the tangible and intangible cultural heritage. It was also explored how the nature-culture linkages could be useful in the context of a potential Mixed Cultural and Natural Heritage site, prone to hazards. Furthermore, the importance of intangible cultural heritage for disaster risk management was pointed out as well as how this could be important for nature conservation. Furthermore, other systems for the conservation of culture and nature were presented, such as Biosphere Reserves and Geoparks.

Participants discussed the following questions in groups:

- How does nature-culture linkages relate to resilience to disasters?
- What makes a landscape vulnerable?
- How can heritage contribute to resilience?

The groups expressed that cultural heritage is a product of adaptation to the environment and that both cultural and natural heritage are products of an evolution together. In that sense, they said that natureculture linkages relate to resilience because people's resilience consists in their adaptation to their natural setting, which allowed them to accumulate knowledge of nature and to develop coping mechanisms. It was found that the stronger the connection between nature and culture, the stronger the level of resilience. However, they remarked that some events can be so catastrophic that they can compromise the community's and landscapes ability to rebuild. It was also noticed that resilience is context-dependent, as in some places where nature-culture linkages are strong, there may be less capacity or less connectivity, affecting the level of resilience. Furthermore, participants said that nature and culture are supposed to be combined, in that way they can help decrease the vulnerability of particular places. They insisted in that traditional knowledge needs to be considered because people know what to do and have adapted to the recurrent events and hazards in the particular areas they inhabit.

In discussing the vulnerability of landscapes, some participants mentioned that the lack of understanding nature and its connection to the people can increase the vulnerability of a landscape. Moreover, infrastructure development can affect nature, making a landscape vulnerable. They asserted that if nature is respected, the culture can adapt, and people can have sustainable livelihoods. However, some insisted that humans are responsible for making a landscape vulnerable, in that they give differentiated value to landscapes and, therefore, only care if a valuable landscape is vulnerable. Another group added that there are three aspects that can affect a landscape's vulnerability: the lack of management and governance; tourism, because some historic places or natural protected areas are open to tourism and their carrying capacity is not properly controlled; and finally, the lack of maintenance.

Regarding how heritage can contribute to resilience, participants agreed that cultural heritage is a product of adapting to the natural environment, a product of long-term evolution, so heritage can assist people in disasters, through collective memory. Moreover, heritage helps people understand the history of a location's adaptation, for instance, in understanding the ways things were built, so that resources can be better managed and used, and at the same time, survive disasters. Some participants said that heritage is knowledge. What we have learned from the past and how it can be used in a similar event, makes us more resilient. Experience makes people more resilient as well as gives them an identity which can help people rebuild and bounce back better.

Dr. Jigyasu commented on the day of lectures, noting that it was very informative and highlighted some important findings to keep in mind during the workshop. First, he underlined the importance of a territorial approach and said that sometimes, in the cultural heritage sector practitioners tend to look at cultural boundaries, forgetting the larger natural setting. He added that in preparing for disasters, natural boundaries and jurisdictions need to be considered by both sectors, whose ministries have to cooperate. Secondly, he said that even though we need nature-based solutions to protect cultural heritage, and vice versa, we should not look at these as binary but together at their interlinkages. Nevertheless, he added, we need to merge but also keep in mind that each type of heritage needs their own protection and conservation systems because cultural heritage and natural heritage have their specific needs. Thirdly, he insisted that throughout the process, we should not forget the importance of improving the quality of life of the people. Fourthly, he pointed out the need to connect both levels, bottom-up and top-down, and not to forget that these are also important at their own level. Fifth, he said that the discussion on traditional knowledge systems is very relevant, in the context of disasters and resilience, and that it needs to be recognized but also adapted to the current situations. Especially, he noted, we can see how nature and culture have interacted through time by looking at traditional knowledge. Sixth, he said that resilience can be looked at from different perspectives and understandings, like from the people's or nature's point of view, and he insisted that all these perspectives need to be considered. Finally, he said that during the recovery processes there is a need to look at the interlinkages between recovery and the people's livelihoods. He added that beauty cannot be the only criteria for reconstruction, but that the larger set of issues, where nature and culture interact with each other, needs to be considered. Moreover, he insisted that recovery takes its own time and that we need to look at the "in between" periods to help and support the recovery process while it takes place.



Dr. Maya Ishizawa, CBWNCL Programme Coordinator, explaining the questions for the group discussions.



Mr. Hoseah Wanderi, National Museums of Kenya, presenting the results of the group discussion of the second day.

During the third day of lectures, **Professor Masahito Yoshida**, Chair of the World Heritage Studies Program at the University of Tsukuba, presented the **"Japanese experience on Disaster and Resilience - case studies of Minami-Sanriku and the Historic Town of Sawara."** He explained that the Japanese archipelago is located at the intersection of multiple tectonic plates and that the people who live on the Japanese archipelago are exposed to natural hazards, such as volcanic eruptions, earthquakes, tsunamis, typhoons, and floods. He said that there are frequent disasters in Japan, some examples being the 2011 Tohoku Earthquake and

Tsunami, as well as other recent events, such as torrential rains in Western Japan and the Great Earthquake in Hokkaido. He focused on the Tohoku Earthquake and Tsunami since this was the main theme of the field work, explaining that the 9.0 magnitude earthquake provoked a tsunami that took the life of more than 20,000 people. Additionally, this event was followed by the nuclear accident at the Fukushima Nuclear Power Plant. He presented how there have been different strategies in different prefectures to build resilience in the affected coastal regions; for instance, some prefectures chose to build big walls to protect settlements and others use the Eco-DRR, leaving the natural sand beach to recover. He presented some of the strategies undertaken in the Minami-Sanriku Town in the Miyagi Prefecture, where cultural and natural heritage have been used as a fundamental resource for the reconstruction and recovery processes. He focused on the establishment of the Sanriku Fukko Reconstruction National Park and explained which of the protected areas have been incorporated into this coastal national park. He pointed out the use of nature and natural heritage conservation for building resilience by promoting eco-tourism. He mentioned the concept of Reconstruction Tourism, which focuses on learning from the disaster and recovery process in Tohoku by sharing the experience of the local community's disaster response and reconstruction. After this, he explained the recovery process of his hometown, the historic town of Sawara in the Chiba Prefecture, which was designated as an Important Preservation District in 1996 for a group of traditional buildings. He explained how the town was affected by the earthquake in 2011, showing images of historic houses and important buildings, and how the community, through the NPO for Ono River and the Sawara Historic Town, had worked since 1991 towards the recognition of Sawara as a historical place. He highlighted that this same organization was in charge of the recovery process of the cultural heritage in Sawara after the disaster, making a survey of the areas affected, and raising funds for their restoration as well as publishing the report of the recovery process. He added that, in 2016, Sawara Town became part of the Japan Heritage Program of the ACA and the Sawara Traditional Festival became part of the Representative List of Intangible Cultural Heritage of UNESCO. Professor Yoshida concluded that resilience is fostered by continuous cooperation among community members through agricultural activities and cultural traditions and that communities are the custodians and stewards of cultural and natural heritage.

Next, Professor Nobuko Inaba, from the World Heritage Studies Program, explained the "Japanese Experience on Disaster and Resilience - Local Governance and Neighborhood Resident Groups." She started her presentation by recalling the myths in Japan where people think that earthquakes are caused by a catfish moving under the earth. She added that her presentation would focus on her experience as a staff member of the ACA, in charge of hazard mitigation for architectural heritage, and the role of communities in both heritage conservation and risk preparedness. She showed images of different disasters that occurred in Japan and how these affected historical buildings. She said that when the ACA staff would survey the state of the historical buildings damaged, local people would always ask "What are you doing here while people are struggling to live or die?" She pointed out that this represents their lack of understanding of heritage and its value. She then explained the lessons learned for cultural heritage practitioners through her experience with the disaster response in Japan. She said that the first lesson learned is that no distinctions should be made among the heritage types for an effective rescue during the disaster response. The second lesson is to prepare databases for a quick response to disasters. The third lesson learned is that it is necessary to consider historic landscapes and cultural resources carefully since large-scale recovery and redevelopment works must start at once on a scale that is unusual. A fourth lesson is the need to integrate heritage with wider disaster preparedness and emergency management systems. The fifth lesson is that disaster relief agreements need to be established between local governments and municipalities. She cited an excerpt from a statement issued by ICOMOS Sri Lanka, after the tsunami in 2005, where it was recognized that conservation and restoration are very important for preserving the memory of the past and building the future. She emphasized how important the conservation of cultural heritage is for the socio-psychological and socio-cultural needs of local communities in the event of disasters. She then explained the concepts of machinami hozon and machi-zukuri, as community-based systems for the conservation of cultural heritage. She explained the history of each of these systems, how they work, and their evolution. She highlighted the importance of the role of neighborhood associations that are the result of a matured local governance, the support of comprehensive and autonomous local governance by the national legal framework, and the recognition of neighborhood associations by the national system. She also explained the Disaster Countermeasures Basic Act of 1961, revised in 2018, where heritage was integrated. She pointed out that a more integrated approach to heritage is needed where tangible and intangible manifestations of our culture are linked to the surrounding nature. She added that heritage has an important role in local sustainable

development. In Japan, new laws and national programs for territorial/landscape conservation and local community revitalization, jointly implemented both by heritage and spatial/land-use control authorities, are being undertaken. She finalized her presentation, explaining that the last revision to the Law for the Protection of Cultural Properties, integrates a provision for municipal-level master plans for the recognition (heritage resource mapping), conservation, and utilization of heritage aiming at their incorporation into the wider local plans.

Finally, **Dr. Maya Ishizawa**, the CBWNCL Programme Coordinator, explained the itinerary and content for the field trip to the Tohoku region. She presented information about the general area and the different sites that were going to be visited as well as the layers of protection that converge in each one. The first site to be visited was Hiraizumi, World Heritage 2004, inscribed onto the World Heritage List under criteria (ii) (iii) (iv) (vi). The second site to be visited was Sanriku Fukko Reconstruction National Park, basically the area of Minami-Sanriku Town, and the Shizugawa Bay, a tentative Ramsar site, also part of the National Park. The last site to visit was Matsushima, Place of Scenic Beauty. Besides explaining the program for the site visit, she explained the content of Module 4, which was focused on the working groups reflections on theory and practice.



Left: Professor Masahito Yoshida, Chair of World Heritage Studies at the University of Tsukuba, explains the Japanese Experience in Disasters and Resilience with two case studies. Right: Professor Nobuko Inaba, from World Heritage Studies at the University of Tsukuba, explains the Japanese Experience on Disasters and Resilience from the perspective of Local Governance and Neighborhood Resident Groups.

Participants' questions were focused on better understanding the Japanese system for the conservation of natural and cultural heritage. It was remarked that the heritage conservation and governance systems in Japan involved local communities in protection, conservation, and post-disasters recovery, which was highlighted as an important lesson for other Asia and Pacific countries.

Following the lectures, five participants presented their case studies:

- 1) Xavier Benedict, a professor at MIDAS Architecture College in India, presented "The Confluence of Environment, History and Cultural Landscape of Pulicat Lagoon." He explained that Pulicat Lagoon is the second largest body of water in India, located in Northern Chennai. He affirmed that it is a testimony of living heritage, integrating monsoon heritage and the cultural values of South India. He emphasized that this old lagoon is one of the five wetlands which attracts monsoon clouds, bringing rain to the South-East Coast. It has an important place in the world maritime history, as it linked transnational shared heritage. He brought attention to the values of this wetland, such as the traditional fishing practice called padu-system. Moreover, he said that Pulicat absorbs shock during natural disasters with the support of the Buckingham Canal, that works as a lifeline for this Coast. However, he stressed that the sustainable living and the lagoon biodiversity are endangered due to development and climate change, suggesting that holistic strategies should be used for the lagoon's cultural landscape restoration, including the establishment of an independent authority in charge of the management and conservation of this area.
- 2) Ryan Yamane, a representative of Hawaii State Legislature in the US, presented "Kaho'olawe Island Reserve." His presentation described the history of Kaho'olawe and options to support this island's longterm restoration and resource management. He explained that Kaho'olawe faces significant natural and man-made threats, for instance, bomb ordinances still remain on land and in the sea and, due

to significant wind and rain erosion, there is very little top soil for vegetation growth. He added that Kaho'olawe is directly impacted by climate change and has no fresh water access. With temperatures rising, he explained that it is becoming much more difficult to plant native Hawaiian vegetation for reforestation. He proposed the use of cultural heritage conservation as a means to increase the resilience in Kaho'olawe Island.

- 3) Andrea Margotta, a technical specialist at the Cultural Heritage National Service of the Ministry of Culture of Chile, presented "Rapa Nui World Heritage Site Initiatives and Challenges for the Risk Management." She explained that the Rapa Nui National Park, on Easter Island, is a World Cultural Heritage site strongly related to the natural environment and with important risk factors. For instance, she mentioned that some studies have been conducted in recent years to monitor coastline erosion and the effects of climate change on the island. Moreover, she added that fires are also a threat and disaster prevention related to earthquakes and tsunamis is being worked one. She said that since 2017, the National Park administration is carried out by the Polynesian Indigenous Community Ma'u Henua, created in 2016 and constituted by members of the Rapa Nui indigenous community, and suggested that the role that the local community can play in disaster risk management, based on their local knowledge, is an interesting aspect to explore.
- 4) Radhika Kotari, the director of the Jungwa Foundation in India, presented "Nature-Culture Mapping in the Trans-Himalayas." She introduced Tso Moriri-Korzok (Ladakh-India), located in the Trans-Himalayas at the edge of the Tibetan plateau, as a unique biodiverse wetland above 4500 masl. She explained that it is a locally protected area, an international Ramsar site, and on the Tentative list for World Heritage. She added that the Changpa, nomadic pastoralists, have inhabited this landscape for several centuries and display a complex and strong relationship with nature that is evident in their way of life. She emphasized that the region is highly vulnerable to climate change with a decrease in snowfall, extreme climatic events, warming trends, and changes in the productivity of grasslands which affects both wildlife and herding practices. Moreover, she said that mass tourism, geopolitical conflicts, and the lack of coping or adaptation strategies are further increasing the vulnerability of ecosystems and breaking the social-cultural fabric of the Changpa nomads. She presented her project that aims at reexamining Tsomoriri-Korzok in order to map spatial overlaps between Changpa and the wetland ecosystem to showcase interdependencies and interactions between nature and cultural systems. She proposed to use this mapping as a guide for landscape management and conservation with the onset of these socio-ecological changes.
- 5) Lance Syme, the principal of Kayandel Archaeological Services, presented "The Greater Blue Mountain World Heritage Area." He said that the Greater Blue Mountains World Heritage Area (GBMWHA) is managed as a wilderness area and is subject to frequent incidents of bush fire or wild fires. He added that wild fires have the potential to impact large tracts of land within the GBMWHA and once started there are very hard, if not impossible, to stop. He emphasized that these fires have a catastrophic effect on the natural environment and also on the Aboriginal rock art. He added that recently the GBMWHA has also been subject to proposals for an increase to the dam wall height of the major water supply dam for Sydney. He warned that this increase will result in thousands of kilometers of additional land being subject to inundation by the dam waters.

The presentations of the day focused on sites that showed clear interrelations between natural and cultural values. Moreover, most of the sites presented showed the critical role of local communities. The importance of identifying and respecting traditional and local knowledge systems was emphasized by several presenters. Nature-culture linkages were considered an important approach for all of the sites and was already embedded in the community-based management of the environment and their resources.

At the end of the day, participants reflected on the following question:

• How does this relate to the specific context of the Asia Pacific region?

Participants concluded that the Asia Pacific region can work together on sharing the knowledge on how to relieve disasters. They said that the region is a confluence of hazards and vulnerabilities. As part of the "Ring of fire" there are seismic hazards, but also a high frequency of meteorological hazards. In terms

of vulnerabilities, they noted that most of Asia and the Pacific countries are developing states, with high population density, and difficult socio-economic conditions. Furthermore, they mentioned that settlements are established along the coastlines, as seen in several case studies, and that island states must deal with inaccessibility. Thus, they considered that the Asia Pacific, as a region, shares a hazard-prone context and vulnerability at physical, social, and economic levels.

Nevertheless, as a very diverse region, they agreed that each country has to explore how the nature-culture linkages are expressed in their heritage in order to use this as a basis for developing policy at different levels, in particular, for disaster risk management. Asia Pacific is rich in natural and cultural heritage and holds a large multicultural diversity, which has potentials for building resilience. They emphasized that each participant has to bring these concepts to the field and look for the support of their governments to implement plans where they can apply lessons from the region in their policy-making processes. Moreover, they highlighted the need of capacity building, raising awareness of disasters, and the need to strengthen nature-culture linkages for risk management.

Furthermore, they considered that heritage has an important place in the life of the people in Asia and the Pacific and that there are no clear distinctions between nature and culture. They agreed that governments should explore more on the use of natural and cultural resources, considering their interrelations for development and resilience.

However, they also pointed out that there are differences in political systems and sometimes there is a disconnect between national and local levels. Nevertheless, they suggested that traditional knowledge systems should be incorporated into institutional level strategies. They considered that the concept of resilience exists in local communities and in diverse community practices in the region. They recalled the people-centered approach and insisted that disaster risk management could benefit from important traditional and local knowledge, adding that people move as a collective and that this is what makes them resilient.

Finally, Ms. Buckley summarized the three intensive days of lectures, highlighting the progressive learning and friendly environment built among the workshop participants and resource persons. She added that participants' case studies gave a very diverse and comprehensive vision of the situation in Asia and the Pacific and beyond and that this exchange has made everyone richer. She insisted that we need to look at applying this learning on the ground. She said that we need to build our own models, stretching how nature-culture co-create the landscapes we work on. Moreover, she mentioned that we need to answer, through our work, what it means to think holistically across the conventional nature-culture divide. She acknowledged Dr. Jigyasu's and Ms. Murti's expertise on disaster risk management from both perspectives, the cultural and the natural heritage, and how this knowledge can be combined to provide us with a good framework. She also said that we need to focus on local co-management and governance and that we need resilience all the time, whether or not there is a disaster. She added that we need to explore the components of resilience more. After thanking the resource persons for their participation and the organizing team, she stated that practice leads to change and practitioners can change what governments do through their practice, thus, she encouraged participants to be agents of change, as they work with communities, landscapes, and sites. They can make a change by bringing nature and culture into a single frame and bring resilience into every part of effective management.



Working groups during the third day.



Mr. Xavier Benedict, MIDAS Architecture College, presenting the results of the group discussion of the third day.

Module 3 lasted for four days, during which the participants visited the Tohoku region, located in the North-East of Japan. This region was strongly affected by the Great East Japan Earthquake and Tsunami, in March 2011, and the group visited several sites that had been damaged as well as the projects related to the postdisaster recovery that were under way.

The first stop of the field visit was **Hiraizumi – Temple, Gardens and Archaeological sites representing the Buddhist Pure Land**, cultural property inscribed on to the World Heritage List in 2011, in the aftermath of the disaster, under criteria (ii) and (vi). Participants visited the Buddhist Temple of Chūson-ji and Motsu-ji, temple and gardens. They had the opportunity to see a very important National Treasure of Japan, Konjikido, the Golden Hall, that used to be located outdoors and, currently, is protected under a concrete structure. They also visited the Hiraizumi World Cultural Heritage Center, where they attended a lecture by its Director, **Mr. Tsukasa Oikawa**.

During the lecture, Mr. Oikawa explained the values of Hiraizumi and its different components. He detailed the recovery of one of the stones in the garden of Motsuji. He explained how this stone's position was affected by the 2011 earthquake and that they had to study and follow, with precision, its original inclination in order to re-establish it.



Group photo at Hiraizumi World Heritage Site.



Lecture by Mr. Tsukasa Oikawa, Director of Hiraizumi World Cultural Heritage Center. Interpretation was in charge of Professor Nobuko Inaba, University of Tsukuba.

After the visit, the group arrived at the accommodations in the Iriyado Learning Center in Minami-Sanriku town. Here, **Mr. Kenji Endo**, Director of the Iriyado Learning Center, explained to the participants the impacts of the disaster in Minami-Sanriku Town and the process of post-disaster recovery, from which Taisho University created Iriyado Learning Center as a space for researchers, visitors, and people interested in learning about disaster risk management and the specific experience of post-disaster recovery in Tohoku.



Mr. Kenji Endo explaining the impacts of the disaster and the process of post-disaster recovery of Minami-Sanriku town.

Participants learned that Minami-Sanriku was a very lively town, where many cultural events were performed throughout the year, and where the relationship between people and the sea was very positive. The sea coast was frequented by fishermen and its beaches were popular in the summer. After the earthquake and tsunami in March 2011, life in Minami-Sanriku changed drastically. A large percentage of the population perished or disappeared because of the tsunami. The relationship with the sea was greatly affected. Nevertheless, Mr. Endo explained how the post-disaster recovery process has involved local

communities and their needs, both material and spiritual. Several projects for recovering areas devastated by the tsunami are underway. There are initiatives to restore natural areas, creating more green public spaces in between the coastline and the settlements, as well as reconstructing the local market, which used to be a core of community life in Minami-Sanriku. The new design and vision serve to revitalize the community, recovering their traditional space of exchange, and boosting local businesses.

On the second day of the field trip, participants started the day with a discussion led by **Dr. Gamini Wijesuriya** and **Professor Masahito Yoshida** in order to clarify the situation in Minami-Sanriku Town and to understand how to look at this experience through the lens of integrating nature and culture in heritage conservation, applied in a post-disaster recovery strategy. Furthermore, they gave elements to the participants to reflect on during the working groups discussions.



Dr. Gamini Wijesuriya, former Project Manager of ICCROM – Sites Unit, and Professor Masahito Yoshida, Chairholder of the UNESCO Chair in Nature-Culture Linkages at the University of Tsukuba, leading the discussions on learning from the experience in Minami-Sanriku town.

The group visited the Minami-Sanriku Town Hall, where they attended lectures by municipality officers. First, **Dr. Takuzo Abe**, a Researcher of the Division of Agriculture and Fishery of Minami-Sanriku town, talked about the natural values in the area and the initiative to inscribe the Shizugawa Bay under the Ramsar Convention for Wetlands. Second, **Mr. Akihiro Dazai**, the Director of Sustainability Centre of Minami-Sanriku town, presented the town's reconstruction vision after the 2011 Great East Japan Earthquake and Tsunami.



Left: Mr. Takuzo Abe, Researcher of the Division of Agriculture and Fishery of Minami-Sanriku town. Right: Mr. Akihiro Dazai, Director of Sustainability Centre of Minami-Sanriku town, answering questions from the participants at the end of their lectures at the Town Hall.

During lunch time, participants visited Keimei Maru, a farmer and fisherman restaurant owned by Ms. Sakiko Miura. There, participants listened to her testimony detailing her experience of the tsunami and how she lost her house and restaurant. Ms. Miura shared her particular anecdote: her restaurant had a couple of fisherman floats hanging in the entrance. These were used by his husband, a fisherman in Minami-Sanriku, and the ideograms of his name were written on them. These floats were washed away by the tsunami, however, a few months later some friends told her that her floats had appeared on the news. They had been found in Alaska, were brought back to Japan by airplane and delivered to her in a special ceremony. She said that after being affected by the loss, this event gave her strength to recover her restaurant and continue with her life, in the same place. Ms. Miura is one of the examples of resilience that participants had the chance to listen to.

After lunch, participants visited the Kaminoyama Hachimangu Shrine, where they received a lecture from Ms. Mayumi Kudo, a priestess of the shrine. Ms. Kudo explained to the participants how the tsunami affected her community and how she used her role as a priestess to organize the community and involve community members in the participative processes of the reconstruction of their town. She explained how they worked with Japanese universities' professors, researchers, and students, as well as with foreign universities, like the Massachusetts Institute of Technology or Harvard University from the United States, in re-designing the coastline and the main public areas affected by the tsunami. She also explained how she regenerated the traditions of the *Kiriko*, which are paper handicrafts that are used for communicating with the Gods. Furthermore, she talked about the illustrations and books she is writing in order to communicate disaster risk preparedness to children.



Group photo at the Kaminoyama Hachimangu Shrine, where participants received a lecture from Ms. Mayumi Kudo, priestess of the shrine.

On the third day, participants went to the Marine Visitors Centre. **Mr. Yasushi Niimura**, a Park Ranger at Sanriku Fukko Reconstruction National Park, gave a lecture about the reconstruction project after the tsunami. Then, **Mr. Takuya Hirai**, Director of the Marine Learning Institute, presented the role of ecotourism in the recovery after the tsunami.

After the lunch break, **Mr. Ken'ichi Muraoka**, a fisherman, member of the Council of Minami-Sanriku town, and chairman of the Association for the preservation of Gyozanryu Mitobe Shishiodori (Deer dance), shared his testimony on how the life of fishermen was affected by the tsunami in 2011. He explained his experience and his work on promoting different activities to recover the livelihoods within Minami-Sanriku, such as the regeneration of oyster farming and the recovery of the local intangible heritage of the deer dance.

Finally, the delegation visited the **Togura Shrine**, located on a hill that the tsunami did not reach and where some people's lives were saved. On this hill, participants could see the memorial stones that serve as reminders of previous tsunamis. On one of the stones it is possible to read: "Beware that when there is a big earthquake, tsunami may follow." The role of these stones was discussed, and their utility questioned, as tsunamis keep affecting this coastal region and people have still been doubtful to look for shelter.



Left: Mr. Yasushi Niimura, Park Ranger of Sanriku Fukko Reconstruction National Park. Right: Takuya Hirai, Director of the Marine Learning Institute.



Mr. Ken'ichi Muraoka explaining about the role of intangible cultural heritage in the process of post-disaster recovery.



Discussion sessions assisted by resource persons at Iriyado Learning Center.

On the fourth day, participants left the Minami-Sanriku town and visited the Historical Museum of Jomon Village, in Oku-Matsushima. They received a lecture from Mr. Hiroki Sugawara, curator of the Museum, who took an archaeological approach in explaining the lessons gained since the prehistoric past, in the process of disasters response and recovery. Participants learned that areas that were affected by the tsunami in 2011 were not occupied in the past by the Jomon people, who used to live on the top of the hills and the islands. Settlements were not developed next to the sea, as there was local knowledge on the sea level changes, tidal movements, and possible tsunamis. It was concluded that we need to look more at history to learn about landscapes and about where to settle to prevent disasters. Moreover, Mr. Sugawara explained how the scenic landscape of Matsushima had to be protected when new settlements were being constructed in the area, after many coastal settlements were completely washed out by the tsunami. The group visited some of the new settlements and some of the walls that were constructed in certain villages along the coast, to protect them from a potential tsunami. Discussions arose on how useful those walls may be and how they affect the relationship between the people and the sea.



Mr. Hiroki Sugawara, Director of the Historical Museum of Jomon Village, Oku-Matsushima presenting the legacies of the Jomon people in regards to the process of response and recovery after tsunamis. Professor Nobuko Inaba, University of Tsukuba was in charge of interpretation.



Group photo at Matsushima, Place of Scenic Beauty. (Photo: Namiko Yamauchi)



MODULE FOUR: REFLECTION ON THEORY AND PRACTICE

Module 4 comprised of two days of reflection on the theory and practice gained during the workshop. Participants were divided into interdisciplinary working groups to identify the key issues for disasters and resilience, reflecting on both natural and cultural values of the places visited during the field trip (See Box). Finally, each of the groups gave a presentation. Additionally, it was requested that each participant complete an individual reflection on what lessons were learned from the workshop and from the Japanese experience, that they can bring back to their home countries and, especially, to their sites.

WORKING GROUPS ASSIGNMENT

Group reflection

- 1. Mapping values and the interrelations of nature-culture within the sites
- 2. Assessment of the sites: proposals/lessons learned and recommendations Individual reflection
 - 3. Lesson that can be applied to your country or site

Presentation

20 minutes group reflection

+ 3 minutes for individual reflections

Below, the outcomes of the exercise are reported by the students of the University of Tsukuba that joined the workshop and formed part of the working groups. Excerpts of their written reports, where they explained their working groups process of analysis and results, are reproduced. In the case of Group 2, two reports are included as two students formed part of this group. In addition, individual reflections of each of the group members are summarized as general lessons learned for each group.

Group 1¹

Members: Xavier Benedict (India), Sazzad Hossain (Bangladesh), Hongtao Liu (China), Yllah Okin (DR Congo), Irina Pavlova (Russia), Ryan Yamane (Hawaii-US)

Points of discussion/Questions

After discussing theoretical notions and sharing experience about nature-culture linkages in disasters and resilience, we had an experience in the field which consisted of meeting quite a large number of people that were affected by the 2011 Tsunami in Shizugawa region, in the North-East part of Japan. The results of both lectures and field practice were summarized into group work. My group work discussion points are concerned with mapping values and the interrelations of nature-culture in the visited sites of the Shizugawa region, assess the sites by bringing out some proposals, lessons learned, and recommendations. We had to see how the people we consulted with in the affected communities could be resilient after the Tsunami by relying on nature-culture linkages, how effective this was, what we can learn from their experience, and what we think should be the correct choice or attitude in facing the same issues.

¹ Report by Yllah Okin, Master Student of Life and Environmental Sciences, University of Tsukuba

Focus of analysis

My group and I focused on analyzing and mapping the values of some sites and people we met, seeing the role of those sites and people in terms of nature-culture linkages and resilience to disasters.

For sites analysis, we pointed out the Chusonji temple, the Kaminoya Hachimagu shrine, the Togura shrine and Matsushima, place of scenic beauty. For people met (that we categorized as intangible heritages) we highlighted the strengths, weaknesses, and challenges they faced through building up disaster resilience and strengthening their communities. The three people we focused on were: Ms. Mayumi Kudo, a priestess of the Kaminoya Hachimagu shrine, Mr. Kenichi Muraoka, a fisherman who played an important role in psychological, financial, and social recovery of his community after the 2011 Tsunami, and Ms. Sakiko Miura, a lady who owned a restaurant that was strongly destroyed by the same Tsunami.

Analysis

From the shock of ideas comes out the light. Our group was such a diverse one, according to people's backgrounds and experiences, but we could figure out how to combine our points of views and learn from one another. Analyzing step by step, we learned that:

- The Chusonji temple was in a high landscape that kept it unaffected by the Tsunami;
- The Kaminoyama Hachimangu shrine was not affected by the 2011 Tsunami;
- The Togura shrine survived 3 consecutive Tsunamis and only the lower part was affected by the 2011 one. It was a secure place for people in previous events and they left instructions and messages on stones;
- Matsushima, place of scenic beauty, is exposed to many natural hazards though it is among the most beautiful landscapes in Japan and known for tourism, agriculture, and fishing. It has a natural protection to natural hazards due to the topography and orographic effect and it contains a cohesive community with a considerable level of preparedness to natural hazards;
- The priestess, Ms. Mayumi Kudo, as a spiritual leader could use old and new relationships within her community to communicate and make up strategies to build back her community after the 2011 Tsunami. She could use nature and culture to share her ideas and help her people to psychologically recover, though she had time and resource limitations sometimes;
- The brave fisherman, Mr. Kenichi Muraoka, was a councilman and respected by his community. Using that, he believed and shared his vision with his community. Moreover, he used traditional dance and songs to help his people recover from and remember the 2011 Tsunami. He also able to incorporate the younger generation into the recovery process.
- Ms. Sakiko Miura, the owner of the restaurant that was destroyed by the 2011 Tsunami, had the courage to build it back in the same place. She wanted a sad moment to go away by building a new life.
 Luckily, a piece of her restaurant on what its name was written, was brought back to her from Alaska and she used it as a symbol of resilience to 2011 Tsunami.

Outcomes

There are so many lessons to learn from those experiences. We summarized the most of them as followed:

- Resilience is not taken for granted, it is learned, enhanced, strengthened, and refreshed in everyday life;
- Traditional knowledge is a key part of disaster resilience, people should not neglect their culture and identity because they play a golden role. The example of the Jomon ancient people, in Matsushima bay, is proof that, in general, ancient people knew better about the issues we are currently facing and knew how to mitigate and prevent them;
- The use of nature-based solutions regarding natural hazards and cultural sites protection is effective, but much more effective when it is combined with cultural aspects. This to say that nature-culture linkages are effective to increase disaster resilience (as in the example of the priestess and the fisherman mentioned above);
- Community cohesiveness is a key element in disaster resilience. It is difficult to act individually but easier when all voices and all stakeholders are considered;
- Overconfidence to push back nature boundaries may be dangerous and decrease disaster resilience;
- Sometimes policymakers consider safety before social aspects. For instance, in the case of wall construction along the beach in Matsushima bay, it did not please the community and affected their relationship with the ocean. We did think the wall construction was not a good decision.

We recommended to ourselves that we should encourage the transmission of traditional knowledge in our communities by storytelling and organizing cultural activities. This would increase disaster resilience and contribute to protecting cultural sites. We should reinforce Eco-DRR approaches in ecosystem restorations. And most importantly, we should stay open-minded when it comes to decision making, community participation, disaster resilience, nature-culture linkages, and not see things only by our background, but more widely.

At the beginning of the workshop, it was personally heterogenous to link nature-culture with disaster resilience. Theoretical lectures, field practice, and group work made everything clear to me. I see a bright future in connections between cultural heritage and nature conservation institutions, especially in increasing people's disaster resilience around the world and I am glad to notice that I can think more holistically when addressing natural hazards and disasters' issues.



Irina Pavlova (Russia), Yllah Okin (DR Congo), Sazzad Hossain (Bangladesh), Hongtao Liu (China), Ryan Yamane (Hawaii) and Xavier Benedict (India) preparing their presentation during the working groups session

Summary of lessons learned:

- There is no real divide between nature and culture when observing the field experience.
- Education and schools need to bring nature-culture-people together to reinforce community values and to support the maintenance of linkages.
- There is a need of linking policies with different ecologies and developing local frameworks that are context-specific.
- There is a need of integrating cultural values into the natural sciences work.
- Nature-culture linkages can help in decreasing vulnerability to hazards by connecting communities to their memory, their identity, their relationship to nature, and their traditional knowledge.
- People can use their cultural and natural heritage for rebuilding processes by promoting cultural practices that support community cohesiveness and by using nature-based solutions to protect communities from hazards while restoring nature.
- Community leaders can be vehicles for using nature-culture linkages in post-disaster recovery and conserving natural and cultural heritage as they are important voices of the community and can convey the messages to larger audiences and provoke change at the local level.
- There is a need to listening to local communities', their experience, and local knowledge in order to learn from resilience.
- Traditional knowledge is very important for the regeneration processes as it collects memories from previous experiences and historical understandings of the local environment, as well as it conveys the cyclical nature of hazards.
- Quick responses to disasters are not necessarily a sustainable solution when they do not incorporate

reflections on nature-culture linkages and the relationship between people, communities, and their environment (e.g. the large concrete walls constructed to protect people from tsunamis along the Tohoku coast).

Group 2²

Members: Rohayah Che Amat (Malaysia), Jefferson Chua (Philippines), Thao Le Ngoc (Vietnam), Ola Mamoun (Sudan), Andrea Margotta (Chile), Lance Syme (Australia), Alula Tesfay (Ethiopia)

REPORT 1.

To come up with the analysis and reflection on the sites we visited in Tohoku area, we first listed out the question we needed to answer as a group. The questions were as follows:

- 1. Which sites should we focus on?
- 2. What are the attributes of each site?
- 3. To whom are the values important?
- 4. Who the decision-makers are/ who manages those values?
- 5. How does this relate to resilience?
- 6. What are the recommendations from our observation?

Later, we listed out the main sites and projects on our visit and the main clusters were Hiraizumi, Minami-Sanriku Resilience Landscape (name assigned by the group), and Sanriku Fukko Reconstruction National Park. These sites were split into three subgroups and the ideas were brainstormed. The outcomes were later added together again in the following table:

	Culture	Nature	Resilience
Hiraizumi	 Sacred places on the top of mountain Mount Kinkeisan which represent Buddhism theology; Emphasis on purification and aesthetics; Physical and spiritual elements in the garden 	 Surrounded by a natural Japanese setting and landscape; Harmony with nature derived from Shinto beliefs; Scenic beauty represented in the garden 	Religious and spiritual values of Shintoism and Pure Land Buddhism
Minami-Sanriku Resilience Landscape (Ramsar site, Town, Shrine)	 Social capital as a Shinto priestess; Traditional fishing culture and practices; Maintenance and transmission of the community's collective memories through generations 	 Shinto beliefs and traditions; Environmental diversity; Natural hazards 	Memorialization and trauma recovery through oral traditions increases the capacity for resilience
Sanriku Fukko Reconstruction National Park	 Traditional settlement in line with rich cultural folks, cuisine, and architecture; Intangible heritage of the community 	 Scenic beauty of the greater landscape; Nature as inspiration; Wildlife diversity 	Integration of traditional and contemporary community participation models

² Report 1 by Alula Tesfay, Doctoral student of World Heritage Studies, University of Tsukuba; and Report 2 by Ola Mamoun, Master Student of Life and Environmental Sciences, University of Tsukuba

Our recommendations for each site were as follows:

- 1. Hiraizumi: More comprehensive interpretative facilities demonstrating the links between natural and cultural heritage;
- 2. Minami-Sanriku Resilience Landscape:

(1) to integrate nature-based solutions to hard infrastructure, similar to the priestess' efforts;(2) further dialogue on issues of intercultural exchange;

(3) for the Ramsar site: bird-watching and other ecotourism facilities, protection of the spawning and nursery area for fish and other animal species by integrating these into the management plan;

3. Sanriku Fukko Reconstruction National Park:

(1) Carrying capacity evaluation;

(2) Create a platform for different sectors to meet, discuss, and share different kinds of knowledge (traditional fishery knowledge, scientific knowledge, community responses, and government plan);(3) Create avenues of co-management of the natural resources (water, biodiversity and the culture for building the linkage of natural and culture).

REPORT 2.

The main outcomes were focused on how the natural-culture linkages are reflected in the resilience as a contributor to strengthen the different listed sites.

For Hiraizumi, the group saw the cultural values represented in the sacred places on the top of Mount Kinkeisan (Buddhism theology), surrounded by the natural Japanese setting and landscape in harmonic existence of all the elements derived from Shinto beliefs. In addition, the scenic beauty represented in the garden and the emphasis on purification and aesthetics and the physical and spiritual elements in the garden. Therefore, the group agreed that the religious and spiritual values of Shintoism and Pure Land Buddhism are the core of the Hiraizumi site.

The group used the same way to analyze what we called the Minami-Sanriku Resilience Landscape (which included the Shizugawa bay, proposed as Ramsar site, the Minami-Sanriku Town, and the Kaminoyama Hachimangu Shrine) finding out that the memorialization and recovery from trauma through oral traditions increases the capacity for resilience.

Sanriku Fukko Reconstruction National Park represented a clear integration of traditional and contemporary community participation models as a successful story and an adaptive model for resilience.

The group recommendations focused on building and strengthen the existing resilience based on natureculture linkages that each site has by addressing questions, issues, or concerns about the different properties and practices.

For Hiraizumi, the group saw that the development of more comprehensive interpretation facilities to demonstrate the links between natural and cultural heritage will enhance the existing recovery capacity. While Minami-Sanriku needed more focus on integrating nature-based solutions instead of hard infrastructure, similar to the priestess' efforts; moreover, further dialogue on issues of intercultural exchange were needed; and bird-watching and other ecotourism facilities for the Ramsar site could be developed, as well as protection of the spawning and nursery area for fish and other animal species by integrating these into the management plan. Sanriku Fukko Reconstruction National Park analysis showed the need for carrying capacity evaluation, creating a platform for different sectors to meet, discuss, and share different kinds of knowledge (traditional fishery knowledge, scientific knowledge, community responses, and government plan) and creating avenues of natural resources co-management (water, biodiversity and the culture for building on linkages between nature and culture).

Summary of lessons learned:

• There is a need for a holistic approach to landscape and resilience analysis.

- Under time pressure, such as in the case of disasters, it is important to work together and collaborate among different sectors, stakeholders and disciplines.
- Nature-based solutions can be used in other countries of Asia and the Pacific, and beyond.
- Cultural sites are linked to the landscape they are embedded in and its natural elements.
- The nature-culture and people-centered approaches are more difficult to apply in urban spaces.
- There is a need to invest in resilience, in knowledge, and in raising-awareness.
- Importance to work in interdisciplinary teams with members of different age and different types and level of experience.
- Nature-culture linkages are needed in the thinking and approaches of the government and its institutions.
- Ecosystem approach is fundamental for reducing disasters because it is necessary to think beyond elements but about relationships, especially, relationships to nature and natural hazards.
- Traditional knowledge has a fundamental role during recovery processes (e.g. Japanese communities use of their traditions)
- Experts, planners, managers have to involve people from communities in preparedness and recovery processes.
- There is a need to learning to communicate from the side of heritage professionals for developing a mutual understanding with communities and with the government.
- There is a need of using comprehensive approaches in risk preparedness plans.
- Holistic and people-centered approaches go together and need to be applied when thinking about landscapes, heritage and resilience to disasters.
- There is a need of integrating nature-culture linkages at policy level.
- There is a need to reinforce local-based management.

Group 3³

Members: Kou Huaiyun (China), Radhika Kothari (India), Petrayuna Omega (Indonesia), Delmaria Richards (Jamaica), Hoseah Mwangi Wanderi (Kenya), Bohingamuwa Wijerathne (Sri Lanka)

Points of discussion and focus of analysis

The objective of Group 3 sessions was to discuss and try to gain a complete understanding of natureculture linkages from the sites visited. The examination of the sites and sessions with relevant stakeholders enhanced our practical experiences for better heritage management conservation. The group was able to fully understand vulnerabilities in Japan and, in particular, the sites within the region studied. We understood that post-tsunami disaster rebuilding and resilience response is a difficult but necessary undertaking. When natural hazards occur, it is important to act quickly and carefully considering people, property, plus natural and cultural heritage. Community members as well as practitioners within nature-culture arenas should utilize the nature-culture linkage in both pre and post disaster times as a response mechanism to strengthen communities.

Analysis

The sites visited included: Hiraizumi World Heritage Site (Chusonji – Buddhist temple and Motsuji-Buddhist temple and garden), Sanriku Fukko Reconstruction National Park (Kamiyama Hachimangu Shrine, Marine Visitors Center and Togura Shrine) and Mastushima, place of scenic beauty (Historical Museum of Jomon Village in Oku-Matsushima). All sites were examined separately on the basis of their natural and cultural values then specific issues as well as treats to each site were examined. Lessons learned were discussed then recorded, finally some recommendations were made for group inference.

In consideration of the natural aspects close attention was placed on aesthetic values, biodiversity, ecosystems services, and geological processes. For cultural evaluation historical, cultural, spiritual, religious, and social values were underscored. The group noted all sites involved are susceptible to natural hazards because of their location. Japan sits on top of four tectonic plates. Additionally, developmental, social, cultural, and climatic changes added to their vulnerability.

³ Report by Delmaria Richards, Master Student of Life and Environmental Sciences, University of Tsukuba

Hiraizumi World Heritage Site has strong cultural values and meanings reflective in its history, spiritual setting and natural landscape. The Buddhist cosmology of pure land incorporated with Shintoism is seen in the design of garden and temple. It was evident that the archeological and historical information provided understanding to create a beautiful cultural landscape aimed at reinforcing traditional values and meanings in nature. It provides a venue for sustainable conservation of heritage.

Sanriku Fukko Reconstruction National Park was established in 2013. The inclusion of the Sun Shopping Street and Kaminoyama Hachimangu Shrine provide bases for people to find meanings in nature through the use of mythologies. It acts as an interface between the local community and the government during the recovery and reconstruction processes. The structures provide spaces for the community members to connect. These spaces are also seen as memorial sites. Also, the Moai statue (a present from Easter Island, Chile) provides spiritual inspiration during the town's recuperation. The use of intangible cultural heritage in post-disaster healing is reinforced by the use of ^{Kiriko} art, local belief systems were strengthened, increasing the town's resilience.

Mastushima is widely known as a place of scenic beauty and historical value. The unique woody islands represent continuation of Jomon culture since pre-historic times. We saw how people used traditional knowledge to co-exist with nature. The Jomon people knew locating settlements on higher grounds were safer. It was noted that use of archeological data to understand earthquake and tsunami history was essential for relocation of settlements. The involvement of younger generations in redesigning the town was applauded.

Conclusion

People find meaning in their environment and create values based on these meanings, so both natural and cultural systems must be considered for the forging of strong communities. The strength of societies is reinforced through the use of traditional knowledge, which are valuable in times of disasters. They are often used to aid development of long-term sustainable strategies. Finally, collective memory is necessary to build awareness among citizens and to transfer natural and cultural heritage.

Summary of lessons learned:

- The workshop widened the disciplinary perspective.
- Importance of situating cultural heritage in its natural context.
- There is a need of integrating nature-culture-people perspective into university studies.
- Nature conservation needs to learn from the culture sector.
- Importance of people-centered approaches for the conservation of heritage, for disaster risk management, and building resilience.
- There is a need to learning from local people and involve them in processes of post-disaster recovery.
- Resilience is in the capacity of people and institutions.
- Importance of community knowledge and experience in building resilience.
- Value of historical knowledge for building resilience.
- Japanese values and society are resilient to cope with disasters.
- Particularity of rural values system that incorporate nature-culture linkages and understandings of resilience.



Radhika Kothari (India), Wijerathne Bohingamuwa (Sri Lanka), Petra Omega (Indonesia), Huaiyun Kou (China), Hoseah Mwangi (Kenya) and Delmaria Richards (Jamaica) discussing ideas for the group presentation.



Group photo of participants and resource persons after they received their Certificate of Completion of the Workshop.

Annexes

Annex 1: List of participants⁴

International Participants

• Benedict, Xavier (Culture), Professor, MIDAS Architecture College, India

• Che Amat, Rohayah (Culture), Senior Lecturer, Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia

• Chua, Jefferson (Culture), Project Coordinator, Philippine National Commission for UNESCO, Philippines

• Hossain, Mohammad Sazzad (Culture), Associate Professor, Department of Architecture, Military Institute of Science & Technology, MIST, Bangladesh

- Kothari, Radhika Vijay (Nature), Director, Jungwa Foundation, India
- Kou, Huaiyun (Culture), Associate Researcher, College of Architecture and Urban Planning, Tongji University, China
- Le, Thao Ngoc (Nature), Head of Secretariat, Cham Islands Biosphere Reserve, Vietnam
- Liu, Hongtao (Culture), Associate Professor, Southwest Jiaotong University, China
- Margotta Ruiz, María Andrea (Culture), Technical Specialist, Cultural Heritage National Service, Ministry of Culture, Chile
- Mwangi, Hoseah (Culture), Focal Point of the World Heritage Convention, National Museums of Kenya, Kenya
- Omega, Petrayuna Dian (Culture), Lecturer and Researcher, Krida Wacana Christian University, Indonesia
- Pavlova, Irina Olegovna (Nature), Consultant, UNESCO, Natural Sciences Sector, Section on Earth Sciences and Geo-Hazards Risk Reduction, Russia
- Syme, Lance (Culture), Principal, Kayandel Archaeological Services, Australia
- Yamane, Ryan (Nature), Representative, Hawaii State Legislature, US
- Wijerathne, Bohingamuwa (Culture), Senior Lecturer, Department of History and Archaeology at the University of Ruhuna, Sri Lanka

Nature Sector: 4 (26,7%) – Culture Sector: 11 (73,3%) - Total: 15 (100%)

Students from the University of Tsukuba

- Tesfay Asfha, Alula (Culture), Doctoral student, World Heritage Studies
- Mamoun, Ola (Nature), Master student, Life and Environmental Sciences
- Okin, Yllah (Nature), Master student, Life and Environmental Sciences
- Richards, Delmaria (Nature), Master student, Life and Environmental Sciences

Nature Sector: 3 (75%) - Culture Sector: 1 (25%) - Total: 4 (100%)

⁴ By alphabetical order

Guest speakers and resource persons

- Abe, Takuzo, Researcher, Division of Agriculture and Fishery of Minami-Sanriku town
- Buckley, Kristal, Lecturer, Deakin University and World Heritage Advisor, ICOMOS
- Dazai, Akihiro, Director, Sustainability Centre of Minami-Sanriku town
- Endo, Kenji, Representative, NPO Minami-Sanriku Learning Center
- Hirai, Takuya, Director, Marine Learning Institute
- Jigyasu, Rohit, UNESCO Chairholder, Ritsumeikan University and Vice-President, ICOMOS
- King, Joseph, Unit Director, ICCROM Sites Unit
- Kudo, Mayumi, Priestess, Kaminoyama Hachimangu Shrine
- Murti, Radhika, Director, IUCN Global Ecosystem Management Programme
- Muraoka, Kenichi, Representative, Council of Minami-Sanriku town
- Niimura, Yasushi, Park Ranger, Sanriku Fukko (Reconstruction) National Park
- Oikawa, Tsukasa, Director, Hiraizumi World Cultural Heritage Center
- Okuda, Naohisa, Representative, Ministry of the Environment of Japan
- Shimotsuma, Kumiko, Representative, Agency of Cultural of Affairs, Japan
- Sugawara, Hiroki, Director, Historical Museum of Jomon Village, Oku-Matsushima
- Wijesuriya, Gamini, Former Project Manager, ICCROM Sites Unit
- Yamauchi, Namiko, Lecturer, Keisen Jogakuen University

Organizing Team

• Inaba, Nobuko, Professor World Heritage Studies and Certificate Programme on Nature Conservation, CBWNCL Programme co-Director

• Ishizawa, Maya, Researcher World Heritage Studies and Certificate Programme on Nature Conservation, CBWNCL Programme Coordinator

• Yoshida, Masahito, Chair World Heritage Studies and Certificate Programme on Nature Conservation, CBWNCL Programme co-Director

Staff of the World Heritage Studies/Certificate Programme on Nature Conservation

- Nakasendo, Miyuki, Administrative Assistant, World Heritage Studies
- Suda, Maiko, Research Coordinator, Certificate Programme on Nature Conservation
- Uribe Chinen, Claudia, Research Assistant, World Heritage Studies
- Yasojima, Chitose, Administrative Assistant, Certificate Programme on Nature Conservation

Annex 2: Program of the CBWNCL 2018

MODULE 1: International Symposium Venue: Tsukuba International Congress Center Friday, 21 September

THEME: III INT	ERNATIONAL SYMPOSIUM ON NATURE-CULTURE LINKAGES IN HERITAGE CONSERVATION IN
	ASIA AND THE PACIFIC. DISASTERS AND RESILIENCE
09:30 - 10:00	Open doors
10:00 - 10:10	Opening Address
	by Professor Masahito Yoshida, UNESCO Chair on Nature-Culture Linkages in Heritage
	Conservation, University of Tsukuba
	Opening Address
	by Professor Kyosuke Nagata, President of the University of Tsukuba
10:10 - 10:25	The role of UNESCO in post-disasters recovery
	By Mechtild Rössler, Director UNESCO World Heritage Centre and the Division of Heritage
	(Video message from Paris)
10:25 - 10:50	Natural Heritage – A Nature-based Solution for Resilience to Disasters
	by Radhika Murti, Director Global Ecosystem Management Programme, IUCN
10:50 - 11:15	Reducing Disaster Risks and Building Resilience of Cultural Heritage: Challenges and
	Opportunities
	by Rohit Jigyasu, UNESCO Chairholder on Cultural Heritage and Disaster Risk Management,
	Ritsumeikan University/ICOMOS Vice-President, ICORP President
11:15 - 11:30	Coffee Break
11:30 - 11:55	Development of the Sanriku Fukko (Reconstruction) National Park
	by Naohisa Okuda, Ministry of the Environment of Japan
11:55 - 12:20	Disaster Risk Management for Cultural Heritage in Japan
	by Kumiko Shimotsuma, Agency for Cultural Affairs, Japan
12:20 - 12:50	Panel Discussion
	Chaired by Professor Masahito Yoshida, University of Tsukuba
12:50 - 13:50	Lunch Break
13:50 - 14:15	Key Issues for Disasters and Resilience in line with World Heritage Policy Guidance
	by Joseph King, Director, Sites Unit, ICCOM
14:15 - 16:00	Roundtable Discussion with
	Kristal Buckley, Deakin University/ICOMOS
	Rohit Jigyasu, Risumeikan University/ICOMOS/ICORP
	Joseph King, ICCROM
	Radhika Murti, IUCN
	Naohisa Okuda, Ministry of the Environment of Japan
	Kumiko Shimotsuma, Agency for Cultural Affairs, Japan
	Gamini Wijesuriya, former ICCROM
	Chaired by Professor Nobuko Inaba, University of Tsukuba
16:00 - 16:20	Coffee Break
16:20 - 17:00	Q&A/Conclusions and Closing Remarks
	Chairs: Masahito Yoshida, University of Tsukuba
	Nobuko Inaba, University of Tsukuba
	Maya Ishizawa, University of Tsukuba

MODULE 2: Understanding Nature-Culture Linkages in the Context of Disasters and Resilience

Venue: Humanities and Social Sciences Building Seminar Room B218

Saturday, 22 September THEME: GENERAL CONCEPTS

10:00 - 10:30	Introduction
10:30 - 11:30	LECTURE 1: The World Heritage System Part 1
	Lecturer: Dr. Gamini Wijesuriya, former ICCROM
11:30 - 12:30	LECTURE 2: The World Heritage System Part 2
	Lecturer: Ms. Kristal Buckley, Deakin University/ICOMOS
12:30 - 13:00	Q&A + Discussion
13:00 - 14:00	Lunch Break
14:00 - 16:45	Presentations by participants
14:00 - 14:30	Historic Cities of the Straits of Malacca UNESCO World Heritage Site: Threats and
	Challenges by Rohayah Che Amat, Malaysia
14:30 - 15:00	Lamu Old Town: balancing economic development with conservation of heritage by
	Hoseah Wanderi, Kenya
15:00 - 15:30	Dujiangyan Ancient Town in Sichuan Province, China by Huaiyun Kou, China
15:30 - 15:45	Break
15:45 - 16:15	Matara and Galle Forts: Coastal Cultural Heritage Conservation from Matara Fort to
	Galle Fort in Southern Sri Lanka by Bohingamuwa Wijerathne, Sri Lanka
16:15 - 16:45	Integrated approach for disaster resilience & management at Mahasthan heritage site
	by Mohammad Sazzad, Bangladesh
16:45 - 17:30	Participant's report and Wrap-up

Sunday, 23 September

THEME: DISASTER RISK REDUCTION FOR CULTURAL AND NATURAL HERITAGE

10:00 - 11:00	LECTURE 3: Cultural Heritage and Disaster Risk Reduction
	Lecturer: Dr. Rohit Jigyasu, Ritsumeikan University/ICOMOS
11:00 - 11:30	Q&A + Discussion
11:30 - 12:30	LECTURE 4: Ecosystems-based Disaster Risk Reduction
	Lecturer: Ms. Radhika Murti, IUCN
12:30 - 13:00	Q&A + Discussion
13:00-14:00	Lunch Break
14:00 - 16:45	Presentations by participants
14:00 - 14:30	The Mixed Heritage Values of Mayon Volcano Natural Park and the Place of Narrative in
	Disaster Response by Jefferson Chua, Philippines
14:30 - 15:00	Disaster Risk at Permanent Residence in Siosar Protected Forest: A Preliminary Study by
	Petrayuna Omega, Indonesia
15:00 - 15:30	Recovery of Traditional Tibetan Villages Post Earthquake in World Natural Heritage Site
	Jiuzhaigou Valley by Hongtao Liu, China
15:30 - 15:45	Break
15:45 - 16:15	Nature-Culture Linkages in the Cu Lao Cham – Hoi An World Biosphere Reserve by Thao
	Le, Vietnam
16:15 - 16:45	Natural UNESCO designated sites as platforms for disaster risk reduction by Irina Pavlova,
	Russia
16:45 - 17:30	Participant's report and Wrap-up

Monday, 24 September THEME: JAPANESE EXPERIENCE

10:00 - 11:00 LECTURE 5: Japanese experience on Disaster and Resilience – A case study of Sawara Historic Town

Lecturer: Professor Masahito Yoshida and Professor Nobuko Inaba, University of Tsukuba

11:00 - 11:30	Q&A + Discussion
12:30 - 13:00	LECTURE 6: Introduction to the Field Trip
	Lecturer: Dr. Maya Ishizawa, University of Tsukuba
13:00 - 14:00	Lunch Break
14:00 - 16:45	Presentations by participants
14:00 - 14:30	The Confluence of Environment, History, and Cultural Landscape of Pulicat Lagoon by
	Xavier Benedict, India
14:30 - 15:00	Kaho'olawe Island Reserve by Ryan Yamane, Hawaii, US
15:00 - 15:30	Rapa Nui World Heritage Site – Initiatives and Challenges for the Risk Management by
	Andrea Margotta, Chile
15:30 - 15:45	Break
15:45 - 16:15	Nature-Culture Mapping in the Trans-Himalayas by Radhika Kothari, India
16:15 - 16:45	The Greater Blue Mountains World Heritage Area by Lance Syme, Australia
16:45 - 17:30	Participant's report and Wrap-up

MODULE 3: Management, Implementation and Governance - Disasters and Resilience Venue: Tohoku region

venue. Tonoku region

Tuesday, 25 September

THEME: HIRAIZUMI WORLD HERITAGE SITE

- 06:50 08:30 Departure from Tsukuba to Omiya by bus
- 09:06 10:15 Omiya to Sendai by Shinkansen (Bullet train)
- 10:30 12:00 Sendai to Hiraizumi by bus
- 12:00 13:00 Lunch Break
- 13:00 14:15 Visit to Chusonji (Buddhist Temple)
- 14:30 15:30 Visit to Hiraizumi World Cultural Heritage Centre
- Lecture by Mr. Tsukasa Oikawa, Director, Hiraizumi World Cultural Heritage Centre
- 15:30 16:10 Visit to Motsuji (Buddhist Temple and gardens)
- 16:20 Leave Hiraizumi to Minami-Sanriku Town

Wednesday, 26 September THEME: SANRIKU RECONSTRUCTION NATIONAL PARK

09:00 - 09:30	Lecture about the impact of the Great East Earthquake and Tsunami in Minami-Sanriku
	Town
	Lecture by Mr. Kenji Endo, Representative, NPO Minami-Sanriku Learning Center
09:30 - 10:00	Departure from Iriyado to Minami-Sanriku Town Hall
10:00 - 12:00	Visit to Minami-Sanriku Town Hall
	Lecture by Dr. Takuzo Abe, Researcher, Division of Agriculture and Fishery, Minami-Sanriku
	Town
	Lecture by Mr. Akihiro Dazai, Director, Sustainability Centre, Minami-Sanriku Town
12:00 - 13:00	Lunch
13:00 - 16:45	Visit to Kaminoyama Hachimangu Shrine
	Lecture by Ms. Mayumi Kudo, Priestess, Kaminoyama Hachimangu Shrine

Stay at Iriyado

Thursday, 27 September THEME: SANRIKU RECONSTRUCTION NATIONAL PARK

 09:30 - 10:00 Departure from Iriyado to the Marine Visitor Centre
 10:00 - 12:30 Visit to Marine Visitor Centre
 Lecture by Mr. Takuya Hirai, Director, Marine Learning Institute
 Lecture by Mr. Yasushi Niimura, Park Ranger, Sanriku Fukko Reconstruction National Park, Ministry of the Environment

12:00 - 13:00	Lunch Break
13:00 - 16:45	Visit to Marine Visitor Centre
	Lecture by Mr. Kenichi Muraoka, Fisherman and Member of the Council of Minami-
	Sanriku Town, Chairman, Association for Preservation of Gyozanryu Mitobe Shishiodori
	(Deer Dance)
16:45 - 17:15	Visit to Togura Shrine

Stay at Iriyado

	Friday, 28 September THEME: MATSUSHIMA, PLACE OF SCENIC BEAUTY
08:30 - 11:00	Departure from Iriyado to the Historical Museum of Jomon Village, Oku-Matsushima
09:30 - 11:30	Visit to the Historical Museum of Jomon Village, Oku-Matsushima
	Lecture by Mr. Hiroki Sugawara, Curator, Director of Historical Museum of Jomon Village
	Okumatsuyama
11:30 - 12:30	Lunch Break
12:30 - 14:30	Visit to Zuiganji Temple
14:40 - 16:00	Departure from Matsushima to Sendai by bus
16:34 - 18:10	Sendai to Omiya by Shinkansen
18:30 - 20:00	Omiya to Tsukuba by bus

Saturday, 29 September

Free Day

MODULE 4: Reflection on Theory and Practice

Venue: Humanities and Social Sciences Building Seminar Room B218

Sunday, 30 September

10:00 - 13:00	Working groups
13:00 - 14:00	Lunch
14:00 - 17:00	Working groups

Monday, 1 October

10:00 - 13:00	Working groups
13:00 - 14:00	Lunch Break

14:00 - 17:00	Presentation of Participants
	Q&A + Discussion
	Feedback from Resource Persons
17:00 - 18:00	Delivery of Certificates and Farewell

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