

A report on the management plans and strategies of the **NEAMPAN** site in Japan:

## Questions from ESCAP and my responses



I just changed my job  
in April.

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To begin with



THANK YOU for the comments  
to my previous manuscript!

Very valuable and important comments to my previous manuscript! They are really helpful, indeed! I really appreciate.

- Today, I would like to report the additional information/data based on the comments from the Secretariat.

# Contents of my talk today

1. Brief review of my previous presentation  
in December ( < 3min).
2. Updates of MPA-related policy in Japan ( < 5min).
3. Questions from ESCAP Secretariat,  
and Makino's responses (about 30 min)

# 1. Brief review of my previous report

## 1. Review of management plans / strategies of the selected NEAMPAN site

- 1) Basic information of the [National MPA Policy in Japan](#) (related to outline 1.1)
- 2) Basic information of the [Shiretoko WNH](#) (related to outline 1.1)
- 3) Preliminary review of the management plan of the Shiretoko WNH area (related to outline 1.2-1.4)

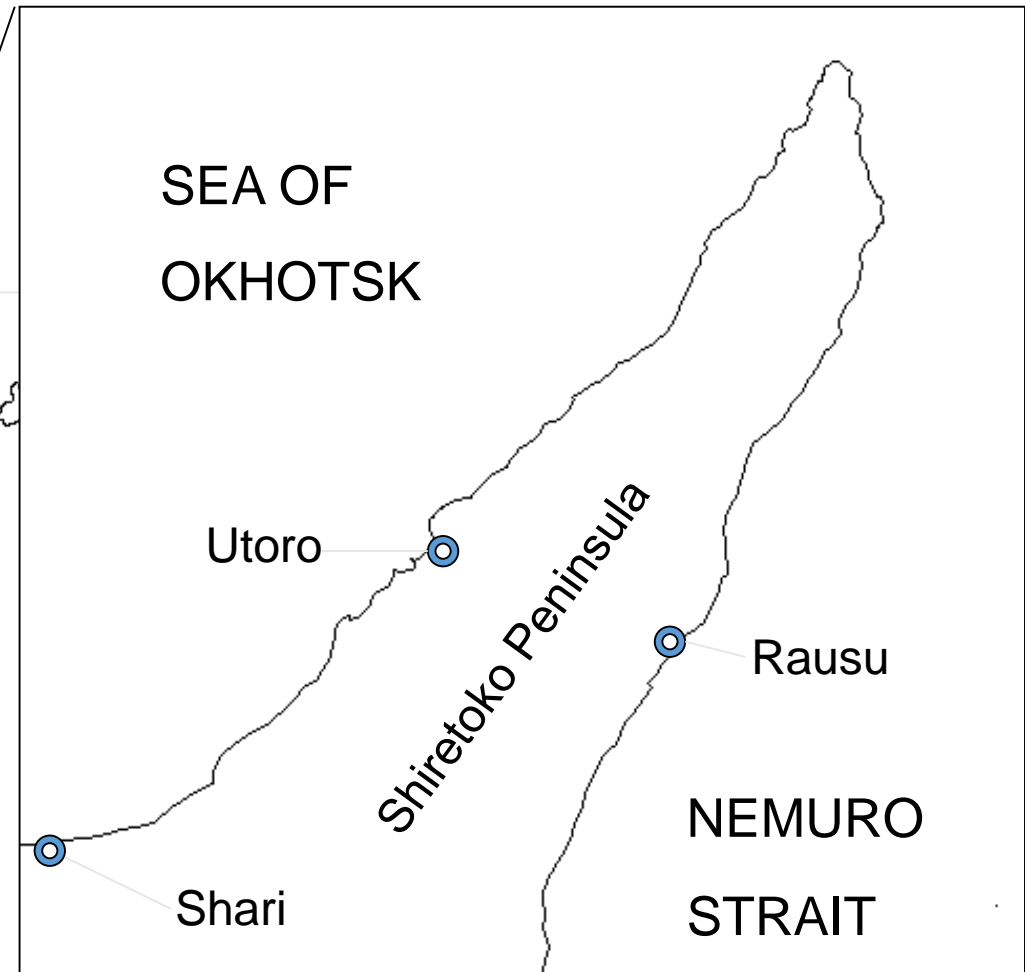
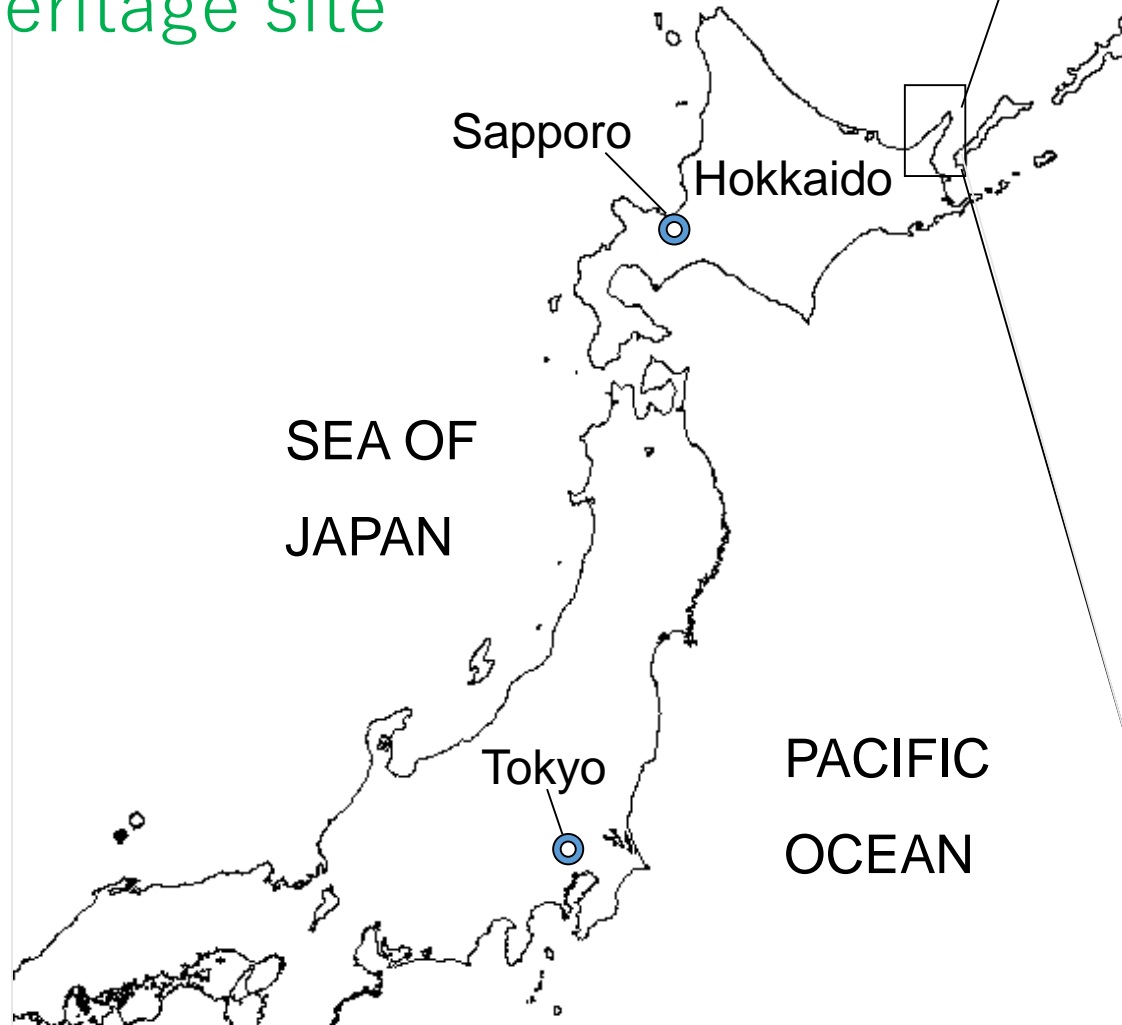
## 2. Monitoring and assessment of designated MPAs

- 1) Basic information of the [monitoring plan in the Shiretoko WNH](#)
- 2) Monitoring parameters (Items) in the Shiretoko WNH (related to outline 2.1)
- 3) Assessment (Evaluation) of the Data in the Shiretoko WNH (related to outline 2.2)
- 4) Links between monitoring / assessment results and management in the Shiretoko WNH (related to outline 2.3)

## 3. Feedback of assessment results to management plans and practices

## 4. Case studies -> [Shiretoko World Natural Heritage](#)

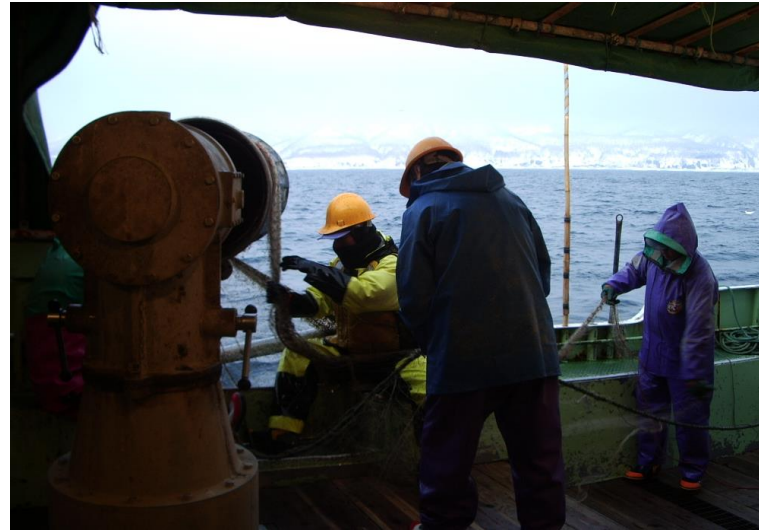
We have only one site included in the NEAMPAN, the Shiretoko National Park. It is the UNESCO World Natural Heritage site



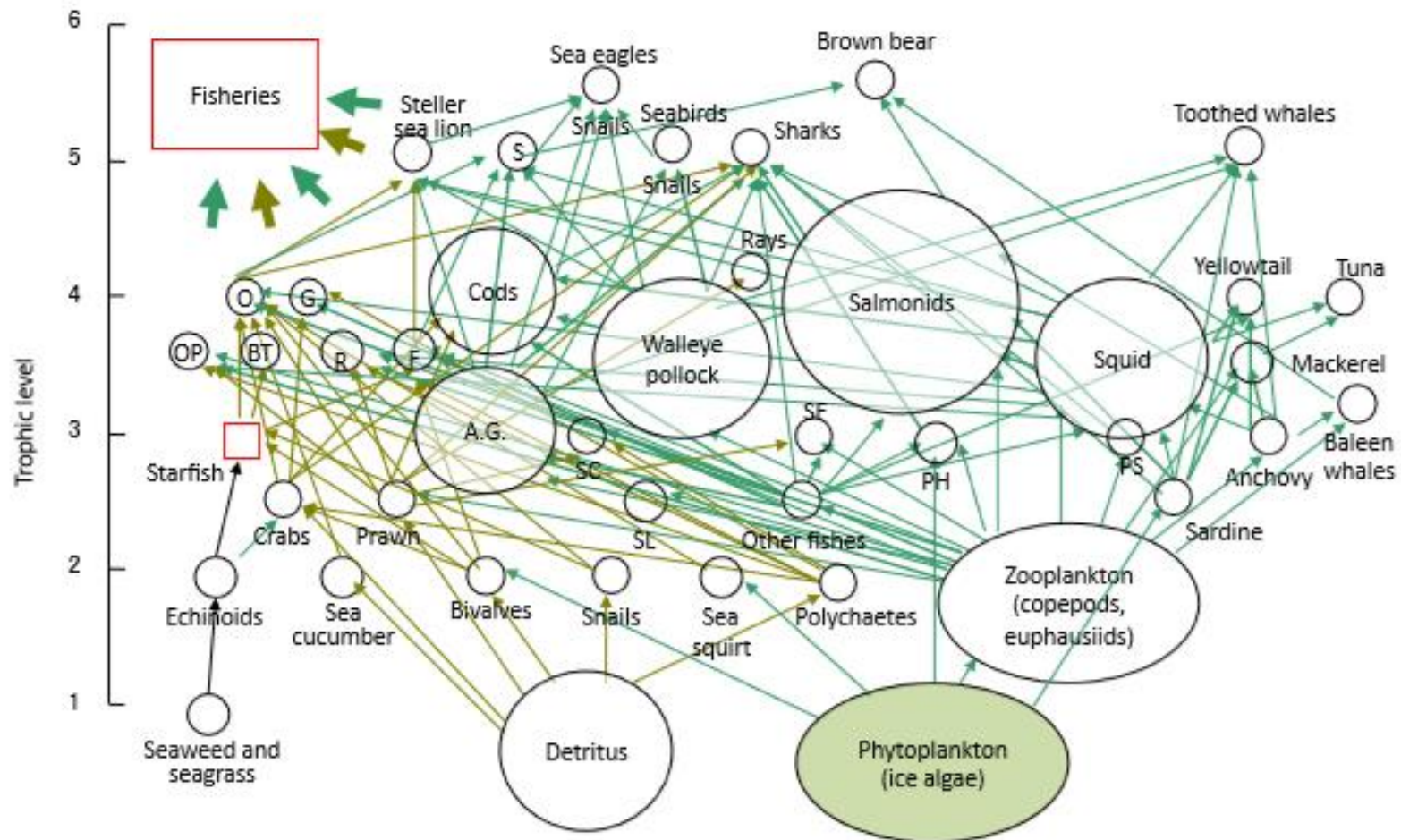
- **Fisheries Production** in 2016  
44 thousand ton, 22 million yen  
(about 1.4% of national total)
- Main species  
Salmon, pollock, atka mackerel, squid, kelp,  
sea urchin, etc. etc.







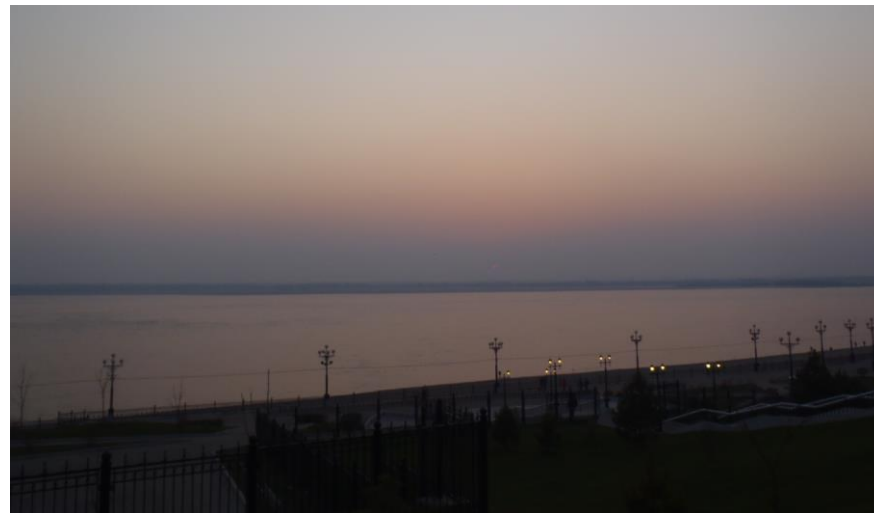
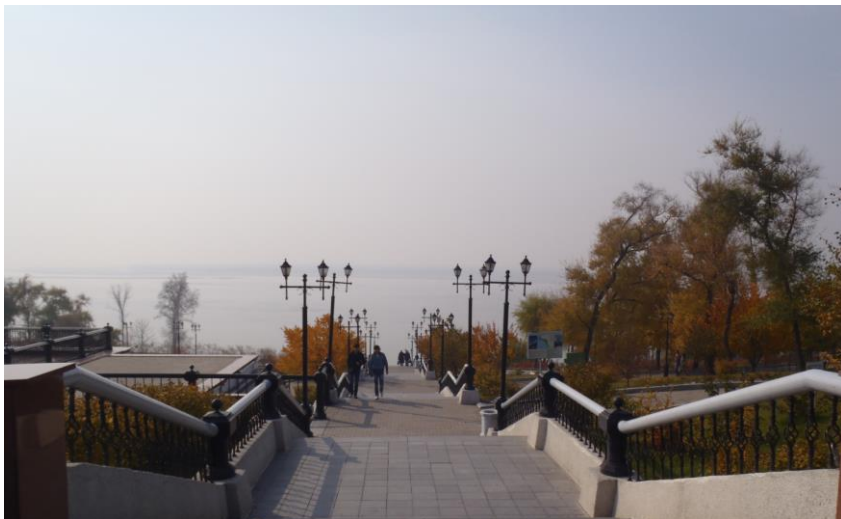
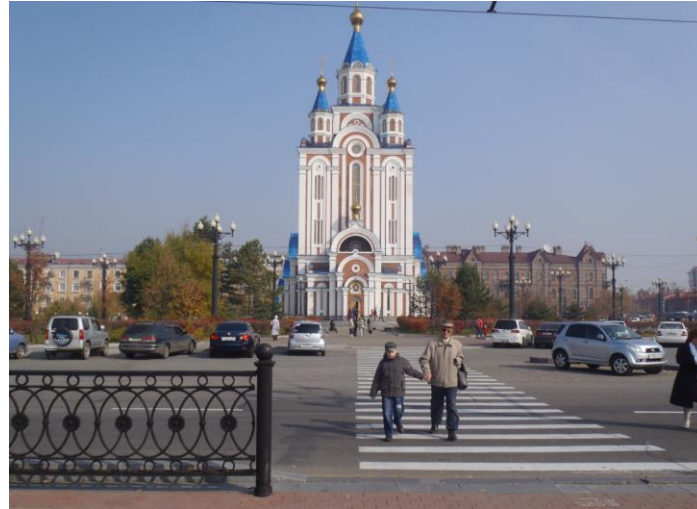
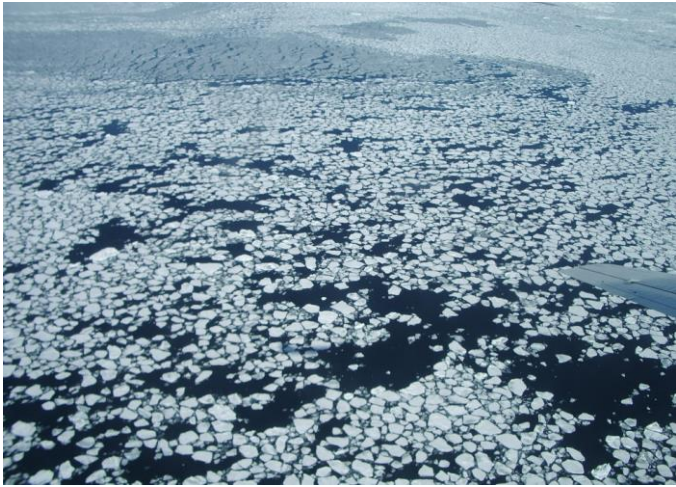




**FIGURE 1.** Food web in the Shiretoko World Natural Heritage (WNH) area (as depicted by the Shiretoko WNH Site Scientific Council). AG: arabesque greenling; BT: bigband thornyhead; F: flatfishes; G: greenlings; O: octopus; OP: ocean perch; PH: Pacific herring; PS: Pacific saury; R: rockfish; S: seals; SC: saffron cod; SF: sandfish; SL: sand-lance.

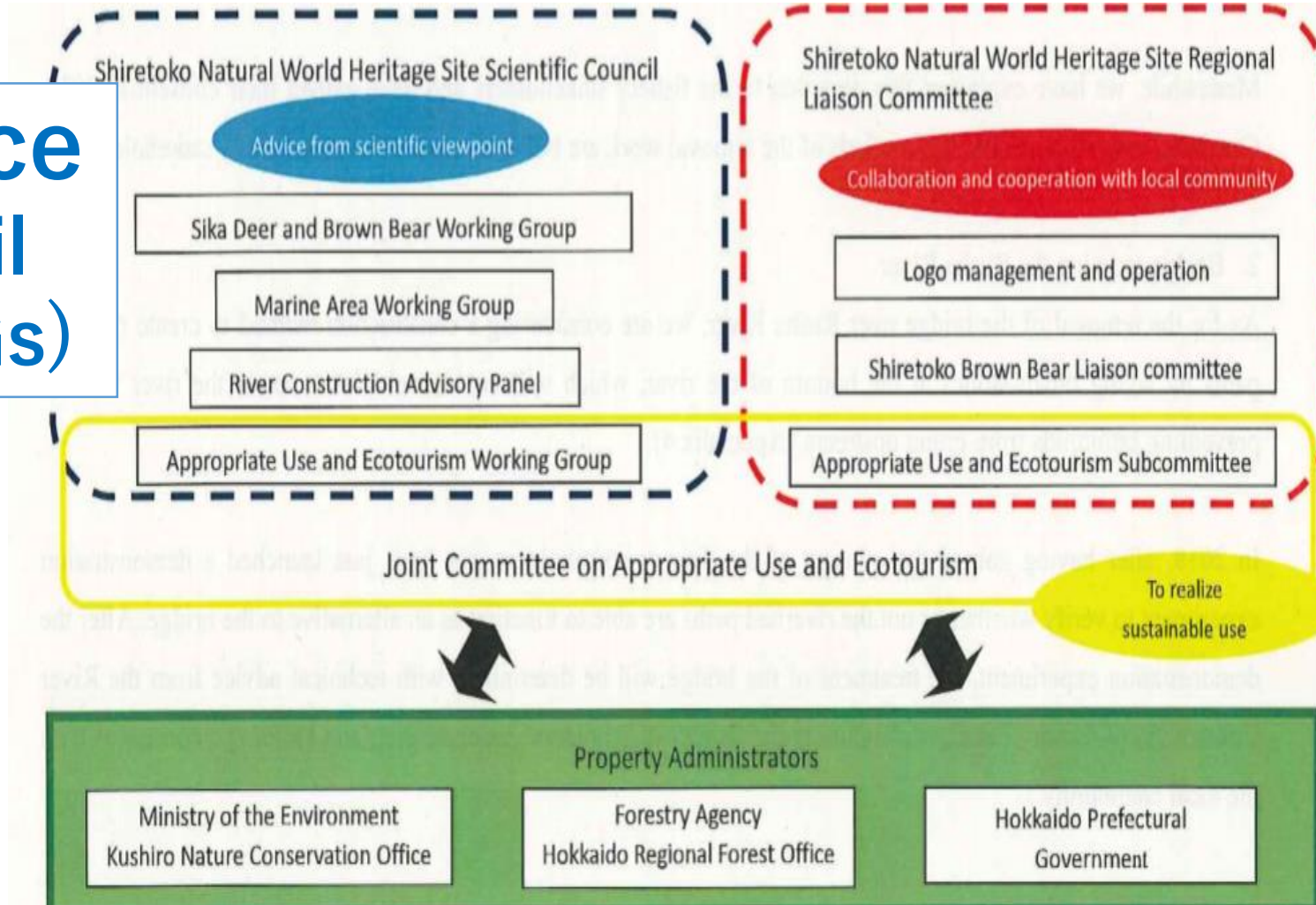


# Sea Ice from Russia (Amur River): Important link to the Russian/Chinese ecosystems



# Institutional framework of the management of the Shiretoko WNH

**Science  
(Council  
and WGs)**



**Local Stakeholders  
(Fisheries,  
Tourism,  
Local residents,  
etc.)**

**Administrators (National and Prefectural)**



These **legal basis** from various ministries are combined for the management of the World Natural Heritage site

Public services	Legal basis	Administrative authority
Fisheries management	-Fisheries Law of 1949 -Fisheries Resource Protection Law of 1951 -Law Concerning the Conservation and Management of Marine Life Resources of 1996	-Fisheries Agency (Ministry of Agriculture, Forestry and Fisheries)
Pollution control	-Law Relating to the Prevention of Marine and Air Pollution from Ships and Maritime Disasters of 1970 -Waste Management and Public Cleansing Law of 1970 -Water Pollution Control Law of 1970	-Coast Guard (Ministry of Land, Infrastructure, Transport and Tourism) -Ministry of the Environment
Landscape conservation and material circulation	-Law on the Administration and Management of National Forests of 1951 -Natural Parks Law of 1957 -Nature Conservation Law of 1972	-Ministry of the Environment - Forestry Agency (Ministry of Agriculture, Forestry and Fisheries)
Species protection	-Law for the Protection of Cultural Properties of 1950 -Law for Conservation of Endangered Species of Wild Fauna and Flora of 1992 -Wildlife Protection and Appropriate Hunting Law of 2002	-Ministry of the Environment -Ministry of Education, Culture, Sports, Science and Technology

Fisheries,  
forest,  
pollution,  
park  
management,  
landscape,  
wildlife,  
endangered  
species,  
etc.,etc.



## 2. Updates of MPA-related policies in Japan

- In 2011, Government of Japan officially published the list of “Existing Systems in Japan that may correspond with Marine Protected Areas”, so called, “Japanese MPA system”.
- This list is included in the “Marine Biodiversity Conservation Strategy Attachment” (I was a member of the Drafting Committee).

<https://www.env.go.jp/nature/biodic/kaiyo-hozen/other/pdf.html>

- In this list, the Japanese MPA system is consisting of **three categories by objectives**;
  - (1) Protection of **natural scenery** (by M.of Env.),
  - (2) Protection of **natural environment or habitats and growing areas for organisms**, (by M.of Env.), and
  - (3) Protection, cultivation etc. of **aquatic animals and plants** (by M. of Agri.For.&Fish)

Now, 8.3% of the EEZ is covered by MPA

(1) Protection of natural scenery M. of Env.

Area (System)	Purpose of designation	Description of major regulations
Natural Park (Natural Parks Act)	Protection of outstanding natural scenery and promotion of its use	Mainly regulation on developments, such as landfills (Ordinary Zone: notification system; Marine Park Zone: license system or harvest control in some zones). A Special Area (license system) may be set in brackish water zones.
Natural Coastal Protected Zone (Act on Special Measures Concerning Conservation of the Environment of the Seto Inland Sea)	To maintain the state of nature so that seashores and ponds, could be used for bathing, shellfish gathering and so forth in the future.	Regulation on developments, such as the construction of new structures, the transformation of land properties, the mining of minerals, and earth and rock quarrying (the prefecture concerned must be notified).

0.43% of EEZ (70 areas)

No data



## (2) Protection of natural environment or habitats and growing areas for organisms

Area (System)	Purpose of designation	Description of major regulations
Nature Conservation Area (Nature Conservation Law)	Conservation of the outstanding natural environment requiring particular conservation.	Developments, such as land transformation, are mainly controlled (Ordinary Zone: notification system; Marine Special Zone: license system or harvest control is adopted in some zones).
Wildlife Protection Area (Wildlife Protection and Proper Hunting Act)	Protection of wildlife.	Hunting is controlled. Developments, such as the construction of structures, are also controlled in Special Protection Zones, and the use of power-driven vessels is additionally controlled in Special Protection Designated Zones.
Natural Habitat Conservation Area, etc. (Act on Conservation of Endangered Species of Wild Fauna and Flora)	Conservation of national endangered species of wild fauna and flora.	Development is controlled in Monitored Zones (by notification system). In Controlled Zones, the harvest of designated species and the use of power-driven vessels are regulated in addition to development control (license system). Additionally, access is restricted for Restricted Entry Zones.
Natural Monument (Act on Protection of Cultural Properties)	Protection of animals, plants, geographic features and minerals of high scientific value.	License systems on acts that change the current state or adversely affect its conservation.

&lt;0.01% of EEZ (1 area)

0.01% of EEZ (21 areas)

Not yet

No data

(3) Protection, cultivation etc. of aquatic animals and plants M. of Ag. For. & Fish.

Area (System)	Purpose of designation	Description of major regulations
Protected Water Surface (Act on the Protection of Fishery Resources)	Protection and cultivation of aquatic animals and plants.	Development, such as landfill and dredging (license system), and the harvest of designated aquatic animals and plants are controlled for water surfaces suitable for egg laying and the growth of juvenile fish
Coastline Marine Resource Development Area, designated sea area (Marine Resources Development Promotion Act)	To promote the streamlining of the development and use of marine fishery resources through measures to promote the multiplication and aquaculture of aquatic animals and plants systematically.	Development, such as sea bed transformation and digging, is controlled (it must be notified to the governor or the Minister of Agriculture, Forestry and Fisheries). Prefectures must formulate a "Coastline Marine Resource Development Plan".
Area designated by prefecture, fishery operator group, etc.	To protect and cultivate aquatic animals and plants, and to secure their sustainable use.	Control over harvest of specified aquatic animals and plants, etc.
(Underlying systems)		
Harvest Control Zone (Fishery Act and Act on the Protection of Fishery Resources), water surfaces covered by the Resource Management Regulations and voluntary efforts by fishery cooperatives (Fishery Cooperative Act)		
Common fishery right area (Fishery Act)	To enhance fisheries productivity (protecting and cultivating aquatic animals and plants, and ensuring their sustainable use), etc.	The harvest of aquatic animals and plants (area, period, fishing method, number of vessels, etc.) is controlled by the Rules about the Exercise of Fishery Rights (approved by the governor). A right to petition based on real rights, a right to claim compensation or damages, and, at the same time, a charge of the infringement on fishery rights will apply to infringement by any third party.

<0.01% of EEZ  
(52 areas)

7.46% of EEZ  
(31 areas)

No official data  
(too many)

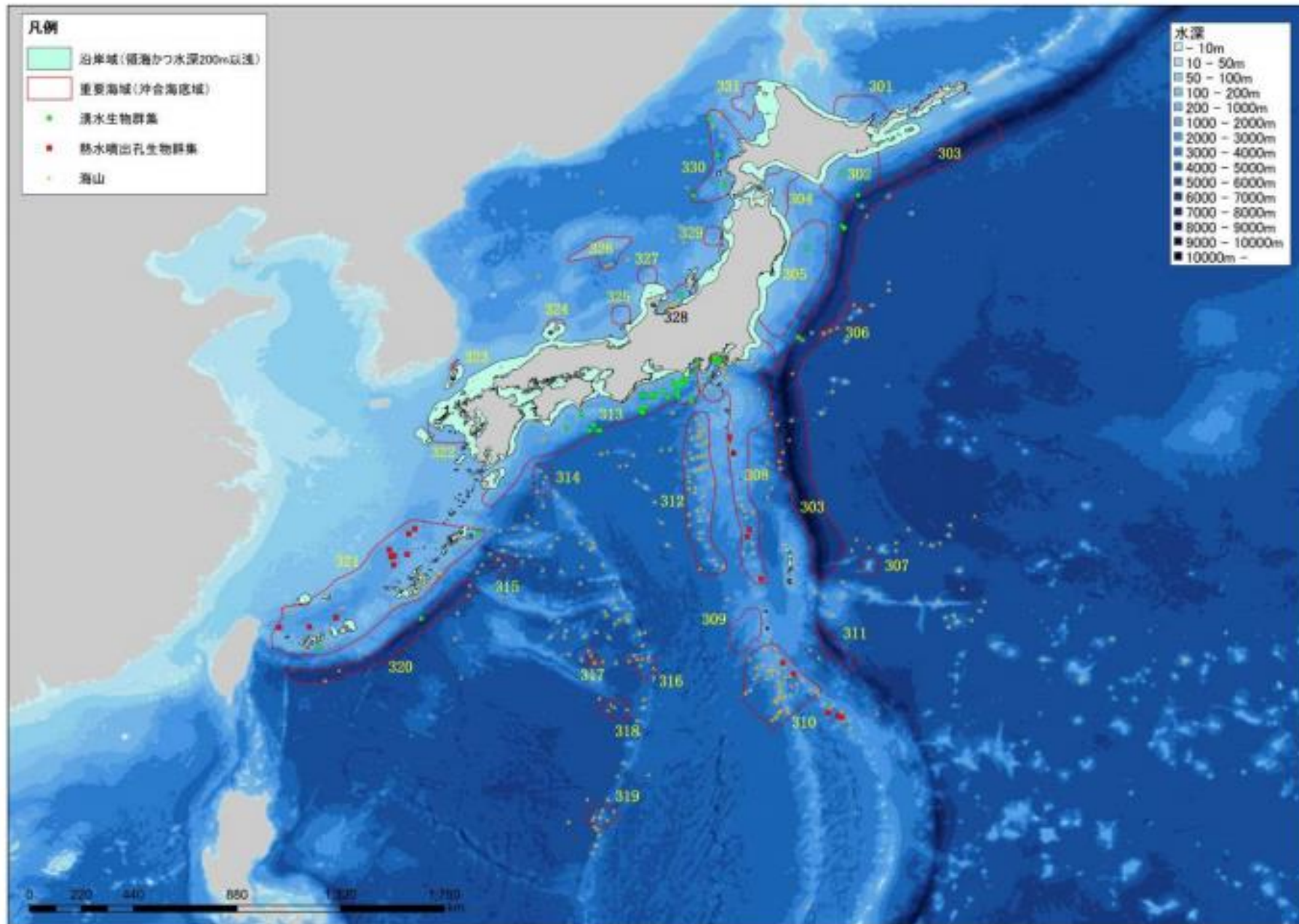
1.95% of EEZ  
(Many areas)

# But these are not enough...

- These existing systems are targeting mostly the coastal shallow waters. Also, the majority is relating to the fisheries-related MPAs.
- Additional institutional framework specific to the protection of the offshore deep-water areas are needed (Offshore MPAs), such as sea mountains, hydrothermal vents, trenches, etc.
- So, the amendment of the “Nature Conservation Law” has submitted to the Parliament on March 1<sup>st</sup> of 2019, passed the Lower House on April 9<sup>th</sup>, and passed the Upper House on 24<sup>th</sup> (I was in the drafting committee).
- Based on this ammendment, we will set additional MPAs at the Offshore areas, and will achieve the Aichi Target (10% of EEZ). (These areas would be mostly the No-take MPAs, I think).



関連資料 4 沖縄海産域の地形・生態系と重要海域



3. Questions from  Secretariat  
and Makino's responses

# Questions

## 1. Monitoring of MPAs

- 1) What are the threats / challenges of the designated MPAs? (within MPA / around MPA)
- 2) What are the factors of these threats / challenges?
- 3) What are the indicators being monitored in / around the MPAs?
- 4) Who and how often conducts monitoring?
- 5) Are the current monitoring indicators adequate to assess the threats and concerns of the designated MPA? What are the other indicators needed for assessing the MPA status?

# Questions

## 2. Assessment of monitored data and management

- 1) How the monitored data is used?
  - indicators monitored
  - offices / department in charge of monitoring / collecting
- 2) Review of monitored data
  - Where the monitoring results are reported to
  - Assessment of the data – what the criteria is, who make assessment on what aspects
- 3) Follow-up on the assessment results
  - How the assessments (of the status of the MPAs) are used to address issues identified?
  - What actions (by whom) are taken?
  - How are they reflected in the planning?
  - Monitoring data and assessment results are shared in public, or only for internal reference?
- 4) Are there any set of indicators that are used in decision making for MPA management?



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There are 3 threats/challenges, I think

- Changing marine ecosystems
- Cross-scale issues
- Adaptive modifications/changes of management measures based on the results from monitoring activities (to be discussed later)

# Questions

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# Factors of threats/challenges

- **Changing ecosystems** -> C.C. (long-term trend), regime shift (natural periodical cycle) and other **cumulative human effects**.
- **Cross-scale issues** -> lack of **international coordination**.
- **Adaptive management** -> **uncertainties**



I will discuss these  
challenges later



# Questions

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- Since 2012, there are 42 Monitoring items in the Shiretoko WNH Long-term Monitoring Plan

(1) Monitoring items implemented by relevant government agencies

No.	Monitoring item	Evaluation item corresponding to monitoring item
1	Observation of water temperature and chlorophyll-a using satellite remote sensing	I The productivity of a unique ecosystem is being maintained. IV Conservation of marine ecosystems within the heritage site is being balanced with stable fishing through sustainable use of fisheries resources. VIII Impacts, or potential impacts of climate change are being tracked early.
2	Fixed-point observation of water temperature using marine observation buoys	I The productivity of a unique ecosystem is being maintained. IV Conservation of marine ecosystems within the heritage site is being balanced with stable fishing through sustainable use of fisheries resources. VIII Impacts, or potential impacts of climate change are being tracked early.
3	Seal habitation survey	III Biodiversity is being maintained at the same level as when the site was inscribed on the World Heritage List. IV Conservation of marine ecosystems within the heritage site is being balanced with stable fishing through sustainable use of fisheries resources. VIII Impacts, or potential impacts of climate change are being tracked early.
4	Marine flora and fauna and habitation survey (periodic shallow-sea survey)	I The productivity of a unique ecosystem is being maintained. II The interaction between marine and terrestrial ecosystems is being maintained. III Biodiversity is being maintained at the same level as when the site was inscribed on the World Heritage List.

Please see the Excel Sheet

- 5 years have passed since the start of the Long-term Monitoring Plan. So, it is now under revision. The NEW Long-term Monitoring Plan will be published in the late 2019 or the early 2020, I expect.
- In the New Long-term monitoring plan, a strong emphasis will be made on the importance of the stakeholder participation (fishers, local citizen, tourists, etc.) to monitoring activities, and outreach to the general public.
- Also, new monitoring items will be added;
  - Symbolistic marine mammal: Killer whale
  - Important fisheries resource: Common squid



# Questions

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-> No. I don't think so. This is one of the most important issues in the Shiretoko WNH. To be discussed in detail later.



# Questions

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2) Review of monitored data

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3) Follow-up on the assessment results

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- Monitoring data and assessment results are shared in public, or only for internal reference?

4) Are there any set of indicators that are used in decision making for MPA management?

To be shared with the general public, and to be used for the Adaptive Management, (BUT NOT YET!)

# Questions

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- ~~offices / department in charge of monitoring / collecting~~

Marine WG and  
Scientific Council

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4	Marine flora and fauna and habitation survey (periodic shallow sea survey)	I The productivity of a unique ecosystem is being maintained. II The interaction between marine and terrestrial ecosystems is being maintained. III Biodiversity is being maintained at the same level as when the site was inscribed on

# And 8 Evaluation Items set in the Long-Term Monitoring Plan

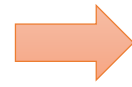
- I The **productivity** of a unique ecosystem is being maintained.
- II The **interaction between marine and terrestrial ecosystems** is being maintained.
- III **Biodiversity** is being maintained at the same level as when the site was inscribed on the World Heritage List.
- IV Conservation of marine ecosystems within the heritage site is being balanced with stable fishing through **sustainable use of fisheries resources**.
- V Impact of **river constructions** has been lessened so as to maintain river ecosystems that can support salmonid species reproduction.
- VI Excessive influence of high **sika deer (*Cervus nippon yesoensis*)** population density on the ecosystem of the heritage site is not occurring.
- VII **Recreational utilization** of the site and other human activities are being balanced with conservation of the natural environment.
- VIII Impacts or potential impacts of **Climate Change** are being tracked early.

# Relationship among the 8 Evaluation Items and the Monitoring Items

8 Evaluation Items	42 Monitoring Items
I The <b>productivity</b>	1, 2, 3, 4, 5, 6, ①, ②, ③, ④, ⑤, ⑥
II The <b>interaction between marine and terrestrial ecosystems</b>	4, 5, 6, 16, 17, 22, ⑧, ⑨
III <b>Biodiversity</b>	3, 4, 7, 8, 9, 10, 11, 13, 14, 15, 16, 18, 23, 24, 25, ③, ⑥, ⑧, ⑪
IV Balance of conservation and <b>sustainable fisheries</b>	1, 2, 3, 6, 17, ①, ②, ③, ④, ⑤, ⑥, ⑦, ⑩
V Less impacts from <b>river constructions (e.g. dams) to salmonid species and river ecosystems</b>	17, 18
VI <b>Sika deer</b> ( <i>Cervus nippon yesoensis</i> )	7, 8, 9, 10, 11, 12, 13, 14, 15, 16, ⑪, ⑫
VII Balance of <b>conservation and recreational uses</b>	6, 10, 19, 20, 24, 25
VIII Impacts/potential impacts of <b>Climate Change</b>	1,2, 3, 10, 18, 21, ①, ⑥

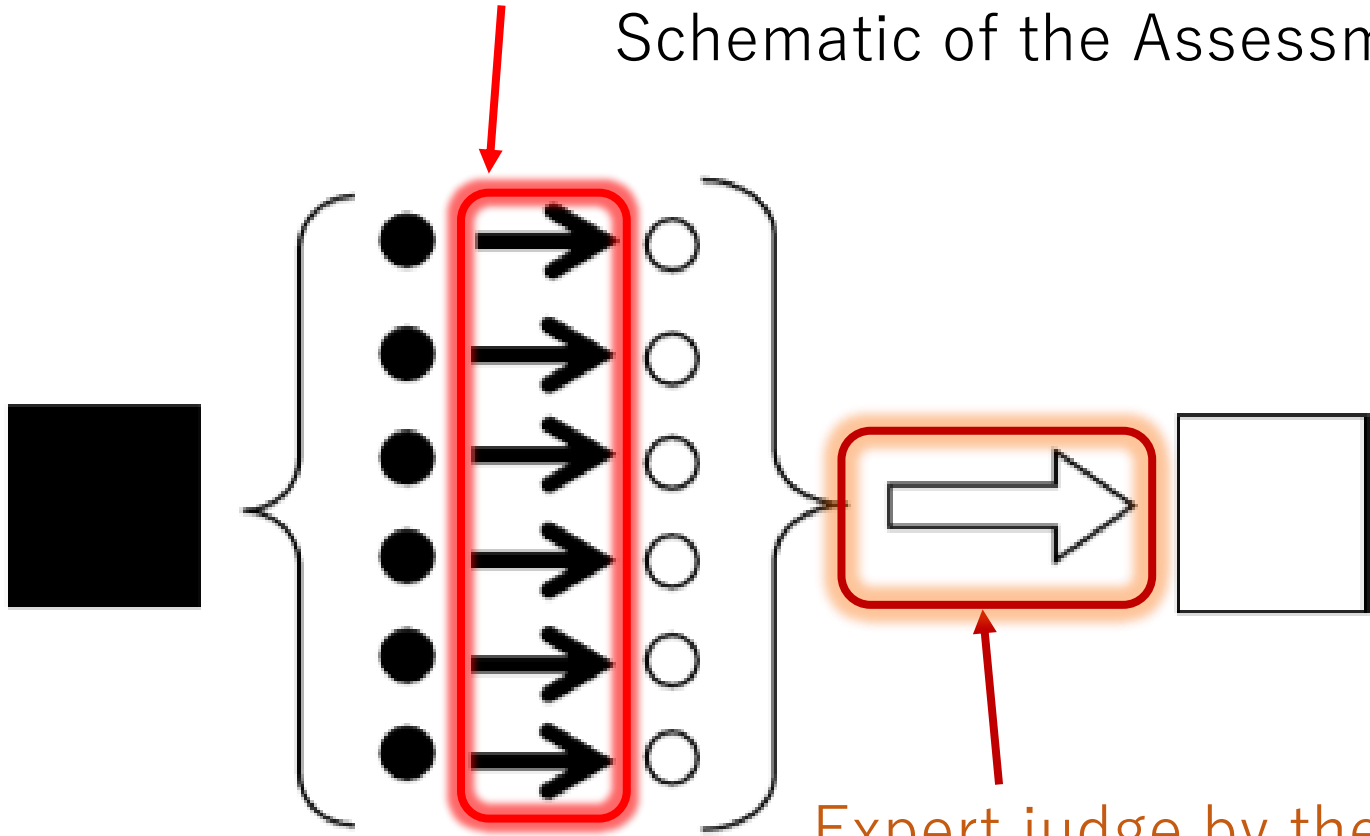


Expert judges by each WG  
: **Every Year**



**Now I will show examples  
of this process with raw data**

Schematic of the Assessment of Data



- Evaluation item **8 Items** (I – VIII)
- Monitoring item **42 Items** (1-25, ①-⑫, (1)-(5))
- Evaluation by each Working Group
- Evaluation of monitoring item
- ➡ Assessment by Scientific Council
- Assessment of evaluation item

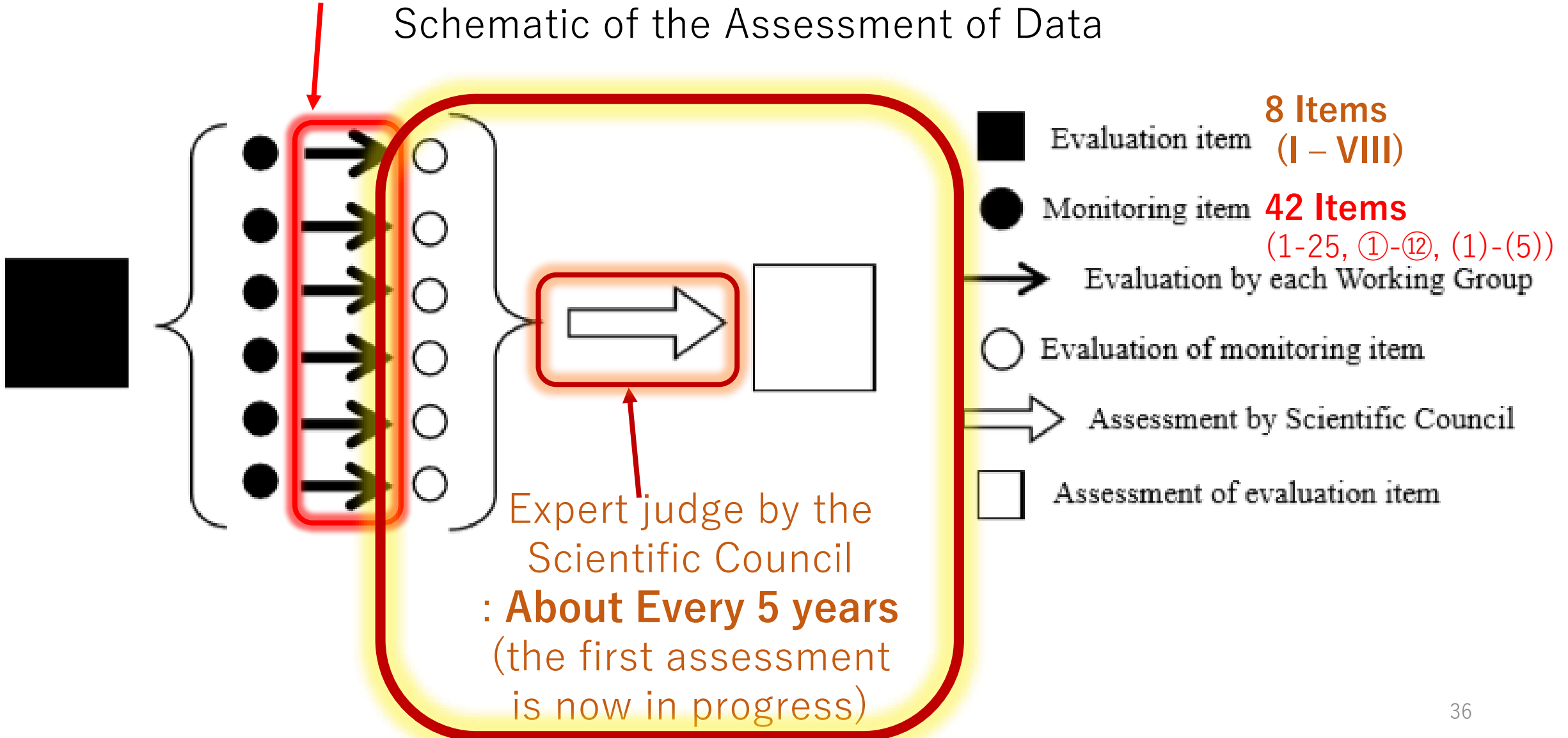
Expert judge by the  
Scientific Council  
: **About Every 5 years**  
(the first assessment  
is now in progress)

Expert judges by each WG  
: **Every Year**



**Now I will show examples  
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Schematic of the Assessment of Data



# Questions

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4) Are there any set of indicators that are used in decision making for MPA management?

Some of monitoring results are utilized in the management, but...

- For example, the **monitoring data of fisheries landings** are utilized for the stock assessment by the Fisheries Agency, and reflected to the **Total Allowable Catch (TAC)**.
- But this is **completely separate management from the management of the Shiretoko WNH**.

- Most of the monitoring activities are **not catered to the management of the World Heritage**. They are the combination of the existing monitoring activities .
- One of the reason is the **budget**. We have got several large ad-hoc and non-regular budgets for the research activities /monitoring for Shiretoko WNH, but no big regular budget specific to the WNH. This is also a big issue.
- Finally, the most serious issue is that we have **not fully utilized the monitoring results to the adaptive management** .




Why? I think there are at least 3 reasons



1. The monitoring activities in Shiretoko are, mainly, the combination of the existing activities by **vertically segmented authorities**. Therefore, by nature, the integration of such monitoring results, and link to the management measures implemented by other authorities, are difficult.  
-> **Lesson: We need to show the benefits from the synergy effects of policy integration. Maybe appropriate pressures by politics, science, UN, NGO, civil society, etc., will be effective as appropriate.**
2. Because of **the intrinsic fluctuations/uncertainties** of marine ecosystem, the monitoring results are not so clear-cut. You can not easily distinguish the sign of problems from the simple noise. So, stakeholders cannot clearly understand the benefit of changing the existing measures and introducing new actions. Usually, it is costly. We need to show the benefits.  
-> **Lesson: we need the scientific logic and stakeholder participation for adaptive management under large uncertainties. The simple “precautionary approach” is not enough in reality.**
3. Similarly, the **cumulative human impact** to the ecosystem (fishery, tourism, shipping, water discharge, etc.), and vice versa, are not scientifically clear enough. This is another reason of not linking to management measures.  
-> **Lesson: More monitoring items and scientific studies relating to human dimensions are highly required.**

# Finally

- The Shiretoko marine ecosystem structures, functions, and services are [linking to Russia, China, and Korea](#).
- International cooperation and the network of MPAs are very important. (Data sharing, exchange of lessons learnt, joint declaration, Int'l symposium, etc.) [We should show the benefits from such cooperations \(ecological, economical and social\)](#).
- I really appreciate  for organizing the NEAMPAN. I am more than happy to contribute more in the future.

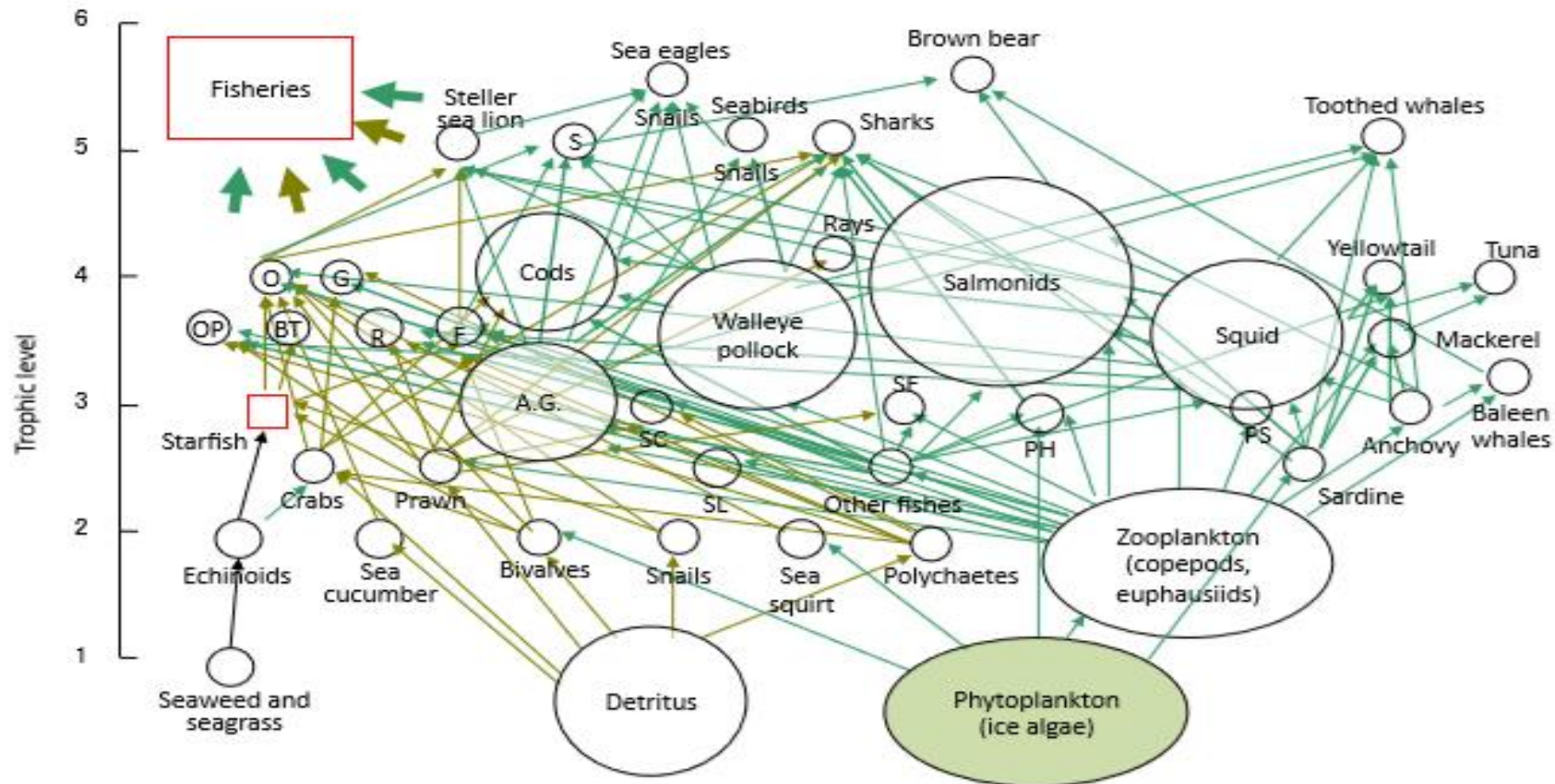
**Thank you very much!!**



# Three unique features in the inscription processes to the WNH List

- **Stakeholder participation:** Local fishers (local Fisheries Cooperative Associations: FCAs) and tourism sector have been participating to the discussions/planning from the very beginning. (communications btw Fisheries and Tourism were facilitated)
- **Science-based consensus building approach:** Putting a lot of emphasis on Science information to bridge the differences/gaps amongst stakeholders, Ministries, and UNESCO/IUCN). (esp. issues relating to Sea Lion, River construction, etc.)
- **Mutual trust between the leading scientist and the local stakeholders:** Prof. Sakurai, a fisheries scientist was the key actor (now the Chair of the WNH Scientific Council) .

# Coastal Food web at Shiretoko WNH area (WNH Scientific Council, 2005)



**FIGURE 1.** Food web in the Shiretoko World Natural Heritage (WNH) area (as depicted by the Shiretoko WNH Site Scientific Council). AG: arabesque greenling; BT: bigband thornyhead; F: flatfishes; G: greenlings; O: octopus; OP: ocean perch; PH: Pacific herring; PS: Pacific saury; R: rockfish; S: seals; SC: saffron cod; SF: sandfish; SL: sand-lance.



# The objective is important

- unless the **objective** of the EBM in *Shiretoko* WNH is to go back to the original “**wilderness**” of centuries ago, utilizing wide ranging species in sustainable manner is very close to the conservation of ecosystem structure and functions in this area. Matsuda, Makino, Sakurai (2009) Biol.Cons

- Coastal fishery is a “**keystone species**”

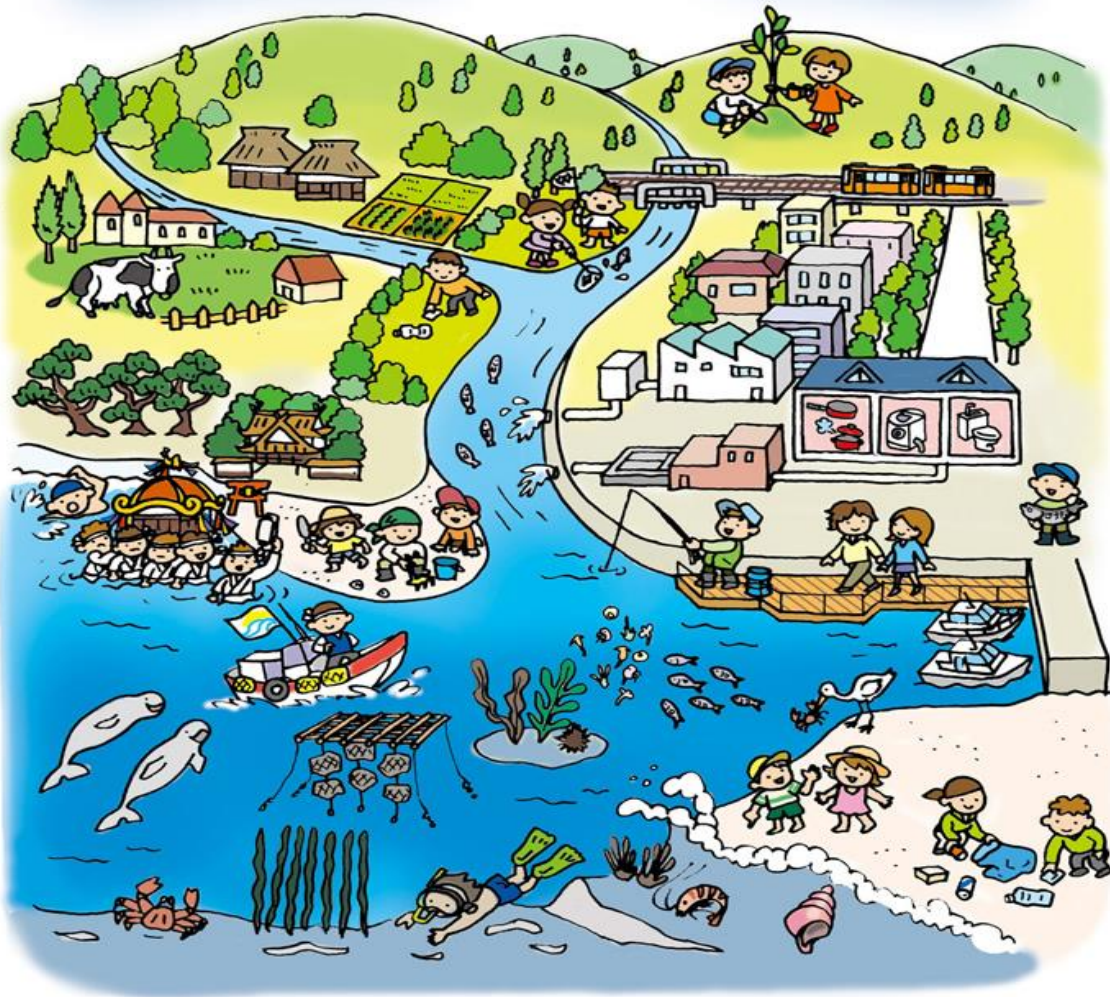
# Meaning of “Conservation” in Japan



Unless the objective of ecosystem conservation is to go back to **the original wilderness hundreds of years ago**, local people’s life is not something to be eliminated from the “original” ecosystems, but **the indispensable component of the local ecosystem**.



# Image of SATOUMI by Ministry of Environment, Japan



<https://www.env.go.jp/water/heisa/satoumi/index.html>

# Image of the “Goal” defined by the Sekisei Lagoon Nature Restoration Committee

(the Sekisei Lagoon Nature Restoration  
Committee Masterplan, 2005)



**Local people is  
indispensable**

# I made a chronology of the conservation activities

Year	Event
1953	The first scientific field investigation in Shiretoko area
1960	A movie about Shiretoko released (big hit)
1964	Designated as <b>the National Park</b>
1971	A song about Shiretoko released (big hit)
1977	The Japanese <b>National Trust</b> (100 Square-meter Forest Movement Trust) started
1978	The Shiretoko Museum open
1982	Designation to the Wildlife Protection Area
1988	Establishment of the <b>Shiretoko Foundation</b>
1994	<b>Start of the activities for the nomination to the World Heritage List</b>
2004	Submission of the nomination list to UNESCO, UNESCO/IUCN monitoring mission
2005	<b>Inscription</b> to the UNESCO World Natural Heritage List



<https://aucfree.com/m/items/n181129675>



<https://aucfan.com/intro/q>



Table 1 Management plans of Shiretoko National Park

Area	Management Plan	Issued by
<p><b>World Heritage Area as a whole (All the Heritage areas: terrestrial, river, and marine )</b></p>	<p>Management Plan for the Shiretoko World Natural Heritage Site (2009) + The Long-term Monitoring Plan (2012)</p> <p><b>Now under the mid-term assessment and the revising process. The revised Long-term Monitoring Plan (more simple) and the assessment results of 8 Evaluation Items (I-VIII) will be released in late 2019 or early 2020.</b></p>	<ul style="list-style-type: none"> <li>- Ministry of Environment</li> <li>- Forestry Agency</li> <li>- Agency for Cultural Affairs</li> <li>- Hokkaido Prefecture</li> </ul>
<p><b>Marine areas only</b></p>	<p>Multiple Use Integrated Marine Management Plan (revised about every 5 years: 2007, 2013 and 2018)</p> <p>➔ Explanatory material for the Multiple Use Integrated Marine Management Plan (2007) provides list of Monitoring Parameters, responsible bodies, etc</p> <p><b>➔ Revised last year (2018)</b></p>	<ul style="list-style-type: none"> <li>- Ministry of Environment</li> <li>- Hokkaido Prefecture</li> </ul>

## Eight Evaluation Items in the Long-term Monitoring Plan 2012

	Cross-sectoral assessment theme	Justification	Reference
I	Extraordinary ecosystem <b>productivity</b> is maintained	Criteria for inscription in UNESCO Natural World Heritage  Recommendation in UNESCO/IUCN Report of the monitoring mission in 2005  Mention in the Management Plan	Criterion (ix) on ecosystem
II	The <b>interaction</b> of marine and terrestrial ecosystems is maintained		
III	<b>Biodiversity</b> at the time of inscription is maintained		Criterion (x) on biodiversity
IV	Marine biodiversity and stable fisheries by <b>sustainable use of marine resources</b> are achieved within the marine area of the WNH site		Recommendation 4 and 6
V	<b>River ecosystem</b> is maintained which enables reproduction of salmonid, through such measures as reducing the impact of structures on the river		Recommendation 7 and 9
VI	Biodiversity in the site is not excessively impacted due to a high population density of <b>sika deer</b>		Recommendation 10
VII	Human activities such as <b>recreational use</b> and conservation of environment are well balanced		4. Basic policies of management, (2) Viewpoints required for management, f. Recreational use and conservation of the natural environment
VIII	<b>Climate change</b> impact or estimation of impact are understood at an early stage		



我が国における海洋保護区  
**8.3%** (36.9万km<sup>2</sup>)

○我が国の管轄権内の水域に対する既存の海洋保護区の面積の割合は8.3%。

○それぞれの海洋保護区が該当する割合を示す。

※重複等があるため、それぞれの割合の合計値は8.3%にはならない。

①自然景観の保護等

**自然公園**(自然公園法) **0.43%** (70件:19,115km<sup>2</sup>)

優れた自然の風景地を保護するとともに、その利用の増進を図る

②自然環境又は生物の生息・生育場の保護等

**自然環境保全地域**(自然環境保全法) **0.01%未満** (1件:1km<sup>2</sup>)

保全が特に必要な優れた自然環境を保全する

**鳥獣保護区**(鳥獣保護管理法) **0.01%** (21件:661km<sup>2</sup>)

鳥獣の保護

**生息地等保護区**(種の保存法) 海域では指定実績なし

国内希少野生動物種を保全する

③水産動植物の保護培養等

**保護水面**(水産資源保護法) **0.01%未満** (52件:28km<sup>2</sup>)

水産動植物の保護培養

**沿岸水産資源開発区域、指定海域**(海洋水産資源開発促進法) **7.46%** (計31件:333,616km<sup>2</sup>)

水産動植物の増殖及び養殖を計画的に推進するための措置等により海洋水産資源の開発及び利用の合理化を促進

**共同漁業権区域**(漁業法) **1.95%** (多数:87,200km<sup>2</sup>)

漁業生産力の発展(水産動植物の保護培養、持続的な利用の確保等)等