#### Volcanoes of Kamchatka

#### 1. World Heritage Property Data

#### 1.1 - Name of World Heritage property

Volcanoes of Kamchatka

#### 1.2 - World Heritage property details

#### 1.3 - Geographic information table

Name	Coordinates	Property (ha)	Buffer zone (ha)	Total (ha)	Inscription year
	0/0	?	?	?	
	0/0	?	?	?	
Kronotsky Strict Nature Reserve (two parcels)	54.75 / 161	1147619.37	0	1147619.37	1996
Southern Kamchatka Wildlife Reserve	51.333 / 157	322000	0	322000	1996
"Nalychevo" Regional Nature Park	53.467 / 159	286025	0	286025	1996
"Bystrinsky" Regional Nature Park	56.333 / 158.5	1368592	0	1368592	1996
Southern Kamchatka" Regional Nature Park (two parcels)	51.95 / 158	500511	0	500511	1996
"Kluchevskoy" Regional Nature Park"	56.1 / 160.55	371022	0	371022	2001
Total (ha)		3995769.37	0	3995769.37	

#### Comment

Following the Monitoring Mission of 2019, the State Party initiated work on improving the management of the Property. The State considers transforming at least two of the regional parks into a one federal national park with a stricter protection regime. This restructuring would reduce a number of components and require a technical revision of maps and the description of boundaries. The State Party will properly inform and consult with the WHC after completing assessments and analysis.

#### 1.4 - Map(s)

Title	Date	Link to source
Volcanoes of Kamchatka: boundary of the component "Kronotsky Strict Nature Reserve" (two parcels)	1996	
Volcanoes of Kamchatka: boundary of the component "Southern Kamchatka Wildlife Reserve"	1996	
Volcanoes of Kamchatka: boundary of the component "Nalychevo" Regional Nature Park	1996	
Volcanoes of Kamchatka: boundary of the component "Bystrinsky" Regional Nature Park	1996	
Volcanoes of Kamchatka: boundary of the component "Kluchevskoy Regional Nature Park"	2000	
Volcanoes of Kamchatka: boundary of the component "Southern Kamchatka" Regional Nature Park (two parcels)	2011	

#### Comment

In addition to the comment on Q1.3, the State Party plans to duly consult with the WHC on few minor modifications to the boundaries of the Property. These minor modifications concern the regional parks and mainly reflect the technical revision of their boundaries as a result of the development of cadastral records.

#### 1.5 - Web and Social Media data of the property (if applicable)

- 1. Greenpeace Russia
- 2. Volcanoes of the Kamchatka Region (VolcanoWorld)
- 3. Volcanoes of Kamchatka, Russia
- 4. Natural site datasheet from WCMC
- 5. Natural Heritage Protection Fund
- 6. Kronotsky Reserve
- 7. Vulcanikamchatki (in Russian)

#### Comment

1. Kronotsky Reserve: http://kronoki.org/; https://www.facebook.com/kronotsky.reserve; https://www.instagram.com/kronoki.ru/; https://vk.com/kronoki 2. Vulcanikamchatki (in Russian): http://www.vulcanikamchatki.ru/; https://vk.com/vulcanikamchatki 3. UNEP-WCMC: http://world-heritage-datasheets.unep-wcmc.org/datasheet/output/site/volcanoes-of-kamchatka/ 4. Natural Heritage Protection Fund: http://www.nhpfund.org/nominations/kamchatka.html 5. UNEP WCMC, WDPA database: https://www.protectedplanet.net/124387

#### 2. Other Conventions/Programmes under which the World Heritage property is protected (if applicable)

## 2.1 - Records indicate that your World Heritage property (in whole or in part) is designated and/or protected under the Conventions/programmes shown in the prefilled table below. Please check and amend as necessary.

		The World Heritage property (in whole or in part) <u>is</u> designated and/or protected under this convention/programme	The World Heritage property (in whole or in part) <u>is not</u> designated and/or protected under this convention/programme
2.1.1	International Register of Cultural Property under Special Protection (1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		×
2.1.2	List of Cultural Property under Enhanced Protection (Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		×
2.1.3	The List of Wetlands of International Importance (The Ramsar List) (Convention on Wetlands of International Importance (Ramsar Convention))		×
2.1.4	World Network of Biosphere Reserves Man and the Biosphere (MAB) Programme	×	
2.1.5	Global Geoparks Network UNESCO Global Geoparks		×

#### 2.2 - Please provide comments on 2.1 if necessary

Kronotsky Strict Nature Reserve has a status of the biosphere reserve.

2.3 - Do your national authorities intend to request the granting of Enhanced Protection (if relevant) under the Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict for the World Heritage property in the next three years?

Not applicable

2.4 - Do your national authorities intend to designate whole or part of the World Heritage property for inclusion in the List of Wetlands of International Importance (The Ramsar List), if relevant, in the next three years?

2.5 - Do your national authorities intend to designate whole or part of the World Heritage property as a Man and Biosphere Reserve (if relevant) in the next three years?

No

2.6 - Do your national authorities intend to apply for whole or part of World Heritage property to be designated as a UNESCO Global Geopark (if relevant) in the next three years?

No

#### 2.7 - Please indicate the level of cooperation at property level between designations under different Conventions/Programmes

2.7.1	1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict	
2.7.1	There is <b>no contact</b> with the Focal Point(s) of this designation/programme.	×
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.2	Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict	
2.7.1	There is <b>no contact</b> with the Focal Point(s) of this designation/programme.	×
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager <b>also manages</b> this designation/programme.	
2.7.3	Convention on Wetlands of International Importance (Ramsar Convention)	
2.7.1	There is <b>no contact</b> with the Focal Point(s) of this designation/programme.	×
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	

2.7.4	Man and the Biosphere (MAB) Programme	
2.7.1	There is <b>no contact</b> with the Focal Point(s) of this designation/programme.	
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	×
2.7.5	UNESCO Global Geoparks	
2.7.1	There is <b>no contact</b> with the Focal Point(s) of this designation/programme.	×
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	

#### 2.8 - Please add any further comments on cooperation with the other designation(s)/programme(s)

No further comments

2.9 - Are you aware of any elements associated with the World Heritage property that have been inscribed on the Representative List of the Intangible Cultural Heritage?

No

2.10 - Please list any elements associated with the World Heritage property inscribed under the Convention for the Safeguarding of the Intangible Cultural Heritage of which you are aware Not relevant

2.11 - Are you aware of any documentary heritage listed under the Memory of the World Programme associated with the World Heritage property?

No

2.12 - Please list any documentary heritage associated with the World Heritage property listed under the Memory of the World Programme of which you aware.

Not relevant

#### 3. Statement of Outstanding Universal Value

3.1 - Statement of Outstanding Universal Value for the property as adopted by the World Heritage Committee

3.2 - Please list the key attributes of Outstanding Universal Value of your property and give an assessment of their condition. As a guideline, it is suggested to focus on approximately five key attributes (no more than 15 overall).

	Brief identification of attribute	Preserved	Compromised	Seriously compromised	Lost
3.2.1	Criterion (vii): landscapes of exceptional natural beauty - visual and aesthetic significance	×			
3.2.2	Criterion (viii): an outstanding example of geological processes and landforms (volcanoes and associated volcanic features) - naturalness and intactness of physical processes	×			
3.2.3	Criterion (ix): a wide range of near pristine terrestrial ecosystems (subarctic and boreal) – naturalness and intactness of ecological processes and systems		×		
3.2.4	Criterion (x): the most important and significant natural habitats for in situ conservation of biological diversity – the greatest diversity of salmonid fish; viability of populations	×			
3.2.5	Criterion (x): the most important and significant natural habitats for in situ conservation of biological diversity -the size and viability of the populations of key terrestrial species		×		
3.2.6					
3.2.7					
3.2.8					
3.2.9					
3.2.10					
3.2.11					
3.2.12					
3.2.13					

3.2.14		
3.2.15		

#### 3.3 - Comments, conclusions and/or recommendations related to Statement of Outstanding Universal Value

Overall, OUV and its attributes are well-preserved. Landscapes of exceptional natural beauty have retained their visual and aesthetic significance. Natural habitats are preserved at scale, supporting key species populations (with few exceptions in a mammal group). In some parts of the Property, ecosystems is affected by projects of significant socio-economic importance. The impact is limited, and the State Party implements respective conservation measures.

#### 4. Factors Affecting the Property

#### 4.1. Buildings and Development

#### 4.1.1 - Housing

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant	X Not relevant	
<ul> <li>4.1.2 - Commercial development</li> <li>Previous answer Cycle 2 (31/07/2014):</li> <li>Not relevant</li> </ul>		
Relevant	X Not relevant	
<b>4.1.3 - Industrial areas</b> Previous answer Cycle 2 (31/07/2014):		

Not relevant

Relevant	

× Not relevant

#### 4.1.4 - Major visitor accommodation and associated infrastructure

Previous answer Cycle 2 (31/07/2014):

Not relevant

X Relevant				Not relevant			
	Impact		Origin		Trend of impact		
Impact	Gurrent	9 Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X		×		×			1

#### 4.1.5 - Interpretative and visitation facilities

Previous answer Cycle 2 (31/07/2014):

Relevant, Positive, Current, Potential, Inside

X Relevant				Not relevant			
	Impact		Origin		Trend of impact		
Impact	4 Current	Potential	<ul> <li>Inside</li> </ul>	Cutside	Solution Decreasing	⇒ Stable	Increasing
O Positive X	×	×	×	×			1
Negative							

# 4.1.6 - Please comment as necessary on how the factors selected as relevant in 4.1 are affecting the property either negatively or positively

Major visitor infrastructure is represented by the Three Volcano Project (under development, outside). Although associated with negative impact on ecosystems, this project also generates substantial positive outcomes. These include funding for the development of visitation facilities, tourist flows regulation as well as wider socio-economic benefits for the region. Major projects in tourism also constitute an alternative to more harmful mining activities.

#### 4.2. Transportation Infrastructure

#### 4.2.1 - Ground transport infrastructure

Previous answer Cycle 2 (31/07/2014): • Relevant, Negative, Potential, Outside

X Relevant			Not relevant		
	Impact	Origin		Trend of impact	

Impact	4 Current	9 Potential	Inside	Coutside	Solution Decreasing	⇒ Stable	Increasing
O Positive							
Negative X	×	×	×	×			

#### 4.2.2 - Underground transport infrastructure

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant	X Not relevant

#### 4.2.3 - Air transport infrastructure

Previous answer Cycle 2 (31/07/2014):

Relevant, Positive, Potential, Inside

X Relevant		Not relevant					
	Impact		Origin		Trend of impact		
Impact	4 Current	Potential	<ul> <li>Inside</li> </ul>	C Outside	> Decreasing	⇒ Stable	Increasing
O Positive X	×		×				1
Negative X		×	×			<b>→</b>	

#### 4.2.4 - Marine transport infrastructure

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Potential, Outside

X Relevant				Not relevant					
	Impact		Origin		Trend of impact				
Impact	Current	9 Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing		
O Positive									
Negative X		×	×	×			/		

#### 4.2.5 - Effects arising from use of transportation infrastructure

Previous answer Cycle 2 (31/07/2014):

Not relevant

X Relevant				Not relevant					
	Impact		Origin		Trend of impact				
Impact	4 Current	9 Potential	<ul> <li>Inside</li> </ul>	Outside	> Decreasing	⇒ Stable	Increasing		
O Positive									
Negative X	×		×	×			/		

## 4.2.6 - Please comment as necessary on how the factors selected as relevant in 4.2 are affecting the property either negatively or positively

Land: Construction of new roads and improvement of existing ones both outside and inside (Esso-Palana road) the Property provide access to the sites, which may lead to uncontrolled visitation and natural resource use. In addition, more accessible regional parks see an increased number of all-terrain vehicles going off-road, leaving tracks and causing soils erosion. Air: regulation of the helicopters traffic improved, including construction of light landing platforms protecting landscapes.

#### 4.3. Services Infrastructures

#### 4.3.1 - Water infrastructure

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

× Not relevant

#### 4.3.2 - Renewable energy facilities

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

× Not relevant

#### 4.3.3 - Non-renewable energy facilities

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

× Not relevant

#### 4.3.4 - Localised utilities

Previous answer Cycle 2 (31/07/2014):

Relevant, Negative, Current, Outside

X Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	4 Current	Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X		×		×		<b>→</b>	

#### 4.3.5 - Major linear utilities

- Previous answer Cycle 2 (31/07/2014):
  - Relevant, Negative, Current, Outside

X Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	4 Current	Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X		×		×			1

# 4.3.6 - Please comment as necessary on how the factors selected as relevant in 4.3 are affecting the property either negatively or positively

Up to date, several previously announced service infrastructure projects (hydropower stations outside the Kronotskiy reserve at Zhupanovaya River, a channel along the Kronotsky river, some localised utilities) have been cancelled. There is a plan to expand a power lines network near Southern Kamchatka Regional NP. Some localised utilities might follow the Three volcano project. All objects will be placed in a fair distance from the PAs to minimise visual impact and ecosystem disturbances.

#### 4.4. Pollution

#### 4.4.1 - Pollution of marine waters

- Previous answer Cycle 2 (31/07/2014):
  - Relevant, Negative, Potential, Outside

× Relevant			Not relevant					
	Impact		Origin		Trend of impact			
Impact	4 Current	9 Potential	Inside	C Outside	Secreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×			×				

#### 4.4.2 - Ground water pollution

- Previous answer Cycle 2 (31/07/2014):
  - Not relevant

X Relevant	I	Not relevant					
	Impact Origin		Origin		Trend of impact		
Impact	Current	9 Potential	Inside	Outside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X		×		×		$\rightarrow$	

#### 4.4.3 - Surface water pollution

Previous answer Cycle 2 (31/07/2014):

Not relevant

× Relevant

	Impact		Origin		Trend of impact		
Impact	4 Current	Potential	Inside	C Outside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X		×		×		<b>→</b>	

#### 4.4.4 - Air pollution

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

× Not relevant

#### 4.4.5 - Solid waste

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Outside

X Relevant				Not relevant					
	Impact		Origin		Trend of impact				
Impact	Current	9 Potential	Inside	Cutside	Solution Decreasing	⇒ Stable	Increasing		
O Positive									
Negative X	×		×	×					

#### 4.4.6 - Input of excess energy

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant X Not relevant

# 4.4.7 - Please comment as necessary on how the factors selected as relevant in 4.4 are affecting the property either negatively or positively

Overall, pollution of all types is limited. However, growing tourism combined with a lack of efficient waste-management system result in an increase in littering inside protected areas and unauthorized waste dumps / landfills overfill outside the Property. Marine waters surrounding the Property experience negative impacts (chemical pollution, plastic debris) from increasing cargo traffic and tourism. Mining activities are monitored for potential chemical pollution of surface/ground waters.

#### 4.5. Biological resource use/modification

#### 4.5.1 - Fishing/collecting aquatic resources

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Outside

X Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	Current	Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X	×			×		<b>→</b>	

#### 4.5.2 - Aquaculture

Previous answer Cycle 2 (31/07/2014):

• Relevant, Positive, Current, Outside

X Relevant				Not relevant					
	Impact		Origin		Trend of impact				
Impact	4 Current	Potential	<ul> <li>Inside</li> </ul>	Cutside	Solution Decreasing	⇒ Stable	Increasing		
O Positive X	×			×		<b>→</b>			
Negative									

#### 4.5.3 - Land conversion

Previous answer Cycle 2 (31/07/2014):

Relevant, Negative, Current, Outside

× Relevant

Not relevant

	Impact		Origin		Trend of impact				
Impact	4 Current	9 Potential	<ul> <li>Inside</li> </ul>	Cutside	Solution Decreasing	⇒ Stable	Increasing		
O Positive									
Negative X	×			×		<b>→</b>			
4.5.4 - Livestock farming/G Previous answer Cycle 2 (31/07/ • Not relevant		esticated animal	s						
Relevant			× Not relevant						
4.5.5 - Crop production Previous answer Cycle 2 (31/07/ • Not relevant	2014):								
Relevant			X Not relevant						
4.5.6 - Commercial wild pla Previous answer Cycle 2 (31/07/ • Not relevant									
Relevant			X Not relevant						
<ul> <li>4.5.7 - Subsistence wild pla</li> <li>Previous answer Cycle 2 (31/07/</li> <li>Relevant, Positive, Currer</li> </ul>	2014):								
X Relevant			Not relevant						
	Impact		Origin		Trend of impact				
Impact	4 Current	9 Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing		
O Positive X	×		×	×		<b>→</b>			
Negative									
4.5.8 - Commercial hunting Previous answer Cycle 2 (31/07/ ● Relevant, Positive, Curren ★ Relevant	2014):	de	,	Not relevant					
	Impact		Origin		Trend of impact				
Impact	Gurrent	9 Potential	<ul> <li>Inside</li> </ul>	C Outside	> Decreasing	⇒ Stable	Increasing		
© Positive 🗙	×	, i otoritur	×	×	Decreasing	⇒	inorcusing		
Negative									
4.5.9 - Subsistence hunting Previous answer Cycle 2 (31/07/ • Relevant, Positive, Currer	2014):	de							
X Relevant			1	Not relevant					
	Impact		Origin		Trend of impact				
Impact	4 Current	9 Potential	<ul> <li>Inside</li> </ul>	Cutside	S Decreasing	⇒ Stable	Increasing		
O Positive X	×		×	×		$\rightarrow$			
Negative									
4.5.10 - Forestry/Wood pro Previous answer Cycle 2 (31/07/ • Not relevant									
X Relevant			1	Not relevant					
	Impact		Origin		Trend of impact				

Impact	4 Current	Potential	Inside	Coutside	> Decreasing	⇒ Stable	Increasing
O Positive X	×		×	×		$\rightarrow$	
C Negative							

# 4.5.11 - Please comment as necessary on how the factors selected as relevant in 4.5 are affecting the property either negatively or positively

Overall, impacts of biological resource use and modification remain stable. Certain improvements have been made in fishing (better quotas regulation, traffic control and anti-poaching measures), reducing negative impact on salmon fish populations. Land conversion is caused by development projects and limited to outside areas. Negative impacts vary from low to moderate and include such effects as ecosystem fragmentation and potential pollution of soil, surface / ground waters.

#### 4.6. Physical resource extraction

#### 4.6.1 - Mining

Previous answer Cycle 2 (31/07/2014):

Not relevant

X Relevant	1	Not relevant						
	Impact		Origin		Trend of impact			
Impact	Current	Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×	×		×		<b>→</b>		
<ul> <li>4.6.2 - Quarrying</li> <li>Previous answer Cycle 2 (31/07/2014):</li> <li>Not relevant</li> </ul>								
Relevant			X Not relevant					
<ul> <li>4.6.3 - Oil and gas</li> <li>Previous answer Cycle 2 (31/07/</li> <li>Not relevant</li> </ul>	2014):							
Relevant			X Not relevant					
4.6.4 - Water (extraction) Previous answer Cycle 2 (31/07/ • Not relevant	2014):							

Relevant

× Not relevant

# 4.6.5 - Please comment as necessary on how the factors selected as relevant in 4.6 are affecting the property either negatively or positively

Mining activities (gold, minerals, thermal water) are limited to outside areas and decreasing. Potential negative impacts include chemical pollution of surface and ground waters. Proper monitoring system is in place to prevent and minimise environmental risks.

#### 4.7. Local conditions affecting physical fabric

#### 4.7.1 - Wind

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

Relevant

X Not relevant

#### 4.7.2 - Relative humidity

#### Previous answer Cycle 2 (31/07/2014):

Not relevant

× Not relevant

#### 4.7.3 - Temperature

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Potential, Outside

× Relevant	elevant				Not relevant				
	Impact		Origin		Trend of impact				
Impact	4 Current	9 Potential	Inside	I Outside	> Decreasing	⇒ Stable	Increasing		

O Positive					
🥥 Negative 🗙	×		×		1
4.7.4 - Radiation/Light					

#### Previous answer Cycle 2 (31/07/2014):

Not relevant

levant	× Not relevant

#### 4.7.5 - Dust

Re

#### Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

× Not relevant

#### 4.7.6 - Water (rain/water table)

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	Potential	Inside	C Outside	Solution Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×			×				

#### 4.7.7 - Pests

#### Previous answer Cycle 2 (31/07/2014):

Not relevant

X Relevant	X Relevant				Not relevant					
	Impact		Origin		Trend of impact					
Impact	4 Current	Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing			
O Positive										
Negative X	×		×	×			/			

#### 4.7.8 - Micro-organisms

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

× Not relevant

# 4.7.9 - Please comment as necessary on how the factors selected as relevant in 4.7 are affecting the property either negatively or positively

The impact of climate-related factors ranges from moderate to high and is increasing. A decrease in rain/snowfalls, combined with higher temperatures, is causing loss of snow cover and destruction of permafrost, contributing to soil erosion and landscape degradation. Landscapes and ecosystems are also affected by a growing number of natural disasters - wildfires, floods, landslides. Pest insects and invasive plants cause forest degradation in few areas, though the overall impact is minor.

#### 4.8. Social/Cultural uses of heritage

#### 4.8.1 - Ritual/Spiritual/Religious and associative uses

- Previous answer Cycle 2 (31/07/2014):
  - Not relevant

Relevant

× Not relevant

#### 4.8.2 - Society's valuing of heritage

#### Previous answer Cycle 2 (31/07/2014):

Not relevant

X Relevant				Not relevant					
	Impact		Origin		Trend of impact				
Impact	4 Current	Potential	<ul> <li>Inside</li> </ul>	C Outside	> Decreasing	⇒ Stable	Increasing		
O Positive X	×			×			1		

Negative X	×			×			/			
<ul> <li>4.8.3 - Indigenous hunting, gathering and collecting</li> <li>Previous answer Cycle 2 (31/07/2014): <ul> <li>Not relevant</li> </ul> </li> </ul>										
Relevant	Relevant X Not relevant									
4.8.4 - Changes in traditional ways of life and knowledge system Previous answer Cycle 2 (31/07/2014):										

- Not relevant
  - X Not relevant

#### 4.8.5 - Identity, social cohesion, changes in local population and community

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

X Relevant				Not relevant					
	Impact		Origin		Trend of impact				
Impact	4 Current	9 Potential	Inside	Cutside	Secreasing	⇒ Stable	Increasing		
O Positive X	×			×					
Negative X	×			×					

#### 4.8.6 - Impacts of tourism/Visitation/Recreation

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	9 Potential	<ul> <li>Inside</li> </ul>	C Outside	> Decreasing	⇒ Stable	Increasing	
O Positive X	×		×			<b>→</b>		
Negative X	×		×	×				

# 4.8.7 - Please comment as necessary on how the factors selected as relevant in 4.8 are affecting the property either negatively or positively

The region is undergoing political and economic changes that affect both societal values and livelihoods. While outcomes are unclear, several trends are emerging. 1.Tourism is actively promoted as an alternative to extractives, yet capacities to regulate impact of tourism on the Property are limited. 2.The development of tourism causes conflicts with hunting and ways of life of local communities. 3.The growing interest to eco-responsible behaviour is limited by lack of respective "enablers".

#### 4.9. Other human activities

#### 4.9.1 - Illegal activities

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Outside

X Relevant			1	Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing	
Positive								
Negative X	×		×	×		<b>→</b>		

#### 4.9.2 - Deliberate destruction of heritage

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive								

Negative X	×	×	×	$\rightarrow$	
<ul> <li>4.9.3 - Military training</li> <li>Previous answer Cycle 2 (31/07/2</li> <li>Not relevant</li> </ul>	2014):				
Relevant		× Not relevant			
<ul> <li>4.9.4 - War</li> <li>Previous answer Cycle 2 (31/07/2</li> <li>Not relevant</li> </ul>	2014):				
Relevant		× Not relevant			
4.9.5 - Terrorism Previous answer Cycle 2 (31/07/2 • Not relevant	2014):				
Relevant		X Not relevant			
<ul> <li>4.9.6 - Civil unrest</li> <li>Previous answer Cycle 2 (31/07/2</li> <li>Not relevant</li> </ul>	2014):				
Relevant		× Not relevant			

# 4.9.7 - Please comment as necessary on how the factors selected as relevant in 4.9 are affecting the property either negatively or positively

Widely spread in the 1990s, poaching caused a decrease in populations of salmonid fish, Snow Sheep, and Wild Reindeer. Over the past decade, a number of poaching cases has been significantly reduced due to effective measures taken by local authorities. Similarly, illegal logging has declined and limited to relatively minor incidents. Vandalism and occasional arson cases are limited to most accessible areas, causing minor and treatable damage to natural objects or visitation facilities.

#### 4.10. Climate change and severe weather events

#### 4.10.1 - Storms

- Previous answer Cycle 2 (31/07/2014):
  - Relevant, Negative, Current, Potential, Outside

× Relevant			1	Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	<b>9</b> Potential	Inside	Outside	> Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×			×			1	

#### 4.10.2 - Flooding

- Previous answer Cycle 2 (31/07/2014):
  - Relevant, Negative, Current, Potential, Outside

X Relevant	1	Not relevant						
	Impact		Origin		Trend of impact			
Impact	4 Current	Potential	<ul> <li>Inside</li> </ul>	Cutside	Solution Decreasing	⇒ Stable	Increasing	
Positive								
Negative X	×			×			1	
4.10.3 - Drought Previous answer Cycle 2 (31/07/2014): • Not relevant								
Relevant			X Not relevant					
4.10.4 - Desertification Previous answer Cycle 2 (31/07/ • Not relevant	(2014):							

× Not relevant

Relevant

#### 4.10.5 - Changes to oceanic waters

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant	X Not relevant								
<ul> <li>4.10.6 - Temperature change</li> <li>Previous answer Cycle 2 (31/07/2014):</li> <li>Not relevant</li> </ul>									
X Relevant	X Relevant				Not relevant				
	Impact		Origin		Trend of impact				
Impact	4 Current	9 Potential	Inside	C Outside	Solution Decreasing	⇒ Stable	Increasing		
O Positive									
🤤 Negative 💥	×	×		×			1		
	<ul> <li>4.10.7 - Other climate change impacts</li> <li>Previous answer Cycle 2 (31/07/2014):</li> <li>Not relevant</li> </ul>								

4.10.8 - Please comment as necessary on how the factors	selected as relevant in 4.10 are affecting the property either negatively or

× Not relevant

#### positively

Relevant

Changes in temperature, the length and timing of seasons have a noticeable impact on landscapes, which are increasingly exposed to soils erosion aggravated by the reduction of snow cover and the destruction of permafrost. Warmer and longer summers also increase risks of wildfires and pests spreading in forestry ecosystems. The impact of storms, river overflows and floods is low, but may increase with the development of infrastructure and respective interference in ecosystems.

#### 4.11. Sudden ecological or geological events

#### 4.11.1 - Volcanic eruption

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	Current	9 Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive X	×	×	×	×		$\rightarrow$		
Negative X	×	×	×	×		<b>→</b>		

#### 4.11.2 - Earthquake

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	9 Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×	×	×	×		<b>→</b>		

#### 4.11.3 - Tsunami/Tidal wave

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	9 Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×	×		×		$\rightarrow$		

#### 4.11.4 - Avalanche/Landslide

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Potential, Outside

X Relevant				Not relevant				
	Impact Origin		Origin		Trend of impact			
Impact	4 Current	9 Potential	Inside	Outside	> Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×	×	×	×		<b>→</b>		

#### 4.11.5 - Erosion and siltation/Deposition

Previous answer Cycle 2 (31/07/2014):

Relevant, Negative, Current, Potential, Outside

X Relevant			I	Not relevant				
	Impact		Origin	Trend of impact				
Impact	4 Current	Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×	×	×	×			1	

#### 4.11.6 - Fire (wildfire)

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Potential, Outside

× Relevant	Kelevant							
	Impact		Origin	Trend of impact				
Impact	Current	9 Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×	×	×	×			7	

# 4.11.7 - Please comment as necessary on how the factors selected as relevant in 4.11 are affecting the property either negatively or positively

Volcanic eruptions, earthquakes as well as related to them tsunami, avalanches and landslides are natural geological processes, constituting (contributing to) one of the attributes of the Property's OUV. Therefore, despite being marked as "negative" (i.e. causing destruction), these factors can be considered neutral. In contrast, wildfires, soil erosion and landslides (except caused by volcanic activities) drive landscape and forests degradation, representing high-level threats to the Property.

#### 4.12. Invasive/alien species or hyper-abundant species

#### 4.12.1 - Translocated species

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

× Not relevant

#### 4.12.2 - Invasive/Alien terrestrial species

Previous answer Cycle 2 (31/07/2014):

• Relevant, Negative, Current, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact	act		
Impact	4 Current	Potential	Inside	Cutside	Secreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×	×	×	×			1	

#### 4.12.3 - Invasive/Alien freshwater species

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant

× Not relevant

#### 4.12.4 - Invasive/Alien marine species

Previous answer Cycle 2 (31/07/2014):

Not relevant

Relevant	X Not relevant
<ul> <li>4.12.5 - Hyper-abundant species</li> <li>Previous answer Cycle 2 (31/07/2014):</li> <li>Not relevant</li> </ul>	
Relevant	X Not relevant
<ul> <li>4.12.6 - Modified genetic material</li> <li>Previous answer Cycle 2 (31/07/2014):</li> <li>Not relevant</li> </ul>	
Relevant	X Not relevant

# 4.12.7 - Please comment as necessary on how the factors selected as relevant in 4.12 are affecting the property either negatively or positively

Invasive species are represented by pest insects and invasive plants, affecting terrestrial ecosystems and causing extinctions of native plants and forest degradation. The negative effects are currently limited to small spots, but risks of aggravation are high due to increasing economic activities (tourism, construction of major tourism and linear infrastructure) and enabling climate conditions (warmer and longer summers).

#### 4.13. Management and institutional factors

#### 4.13.1 - Management system/Management plan

X Relevant				Not relevant			
	Impact Origin			Trend of impact			
Impact	4 Current	9 Potential	<ul> <li>Inside</li> </ul>	Cutside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X	×		×	×	8		

#### 4.13.2 - Legal framework

X Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing
Positive							
Negative X	×	×		×			1

#### 4.13.3 - Governance

X Relevant				Not relevant			
	Impact	Origin	Trend of impact				
Impact	4 Current	Potential	<ul> <li>Inside</li> </ul>	Cutside	Solution Decreasing	⇒ Stable	Increasing
O Positive X	×	×	×	×			
Negative							

#### 4.13.4 - Management activities

Previous answer Cycle 2 (31/07/2014):

Relevant, Positive, Current, Inside

X Relevant				Not relevant				
	Impact Origin			Trend of impact				
Impact	4 Current	9 Potential	<ul> <li>Inside</li> </ul>	Outside	Secreasing	⇒ Stable	Increasing	
O Positive X	×	×	×	×			1	
Negative								

#### 4.13.5 - Financial resources

#### × Relevant

	Impact		Origin		Trend of impact		
Impact	Gurrent	Potential	Inside	Cutside	Solution Decreasing	⇒ Stable	Increasing
O Positive X		×	×	×			1
Negative X	×		×	×	8		

#### 4.13.6 - Human resources

X Relevant	Not relevant						
	Impact		Origin	Trend of impact			
Impact	4 Current	9 Potential	<li>Inside</li>	C Outside	> Decreasing	⇒ Stable	Increasing
O Positive X		×	×	×			1
Negative X	×		×	×	N		

#### 4.13.7 - Low impact research/monitoring activities

- Previous answer Cycle 2 (31/07/2014):
  - Relevant, Positive, Current, Inside

X Relevant				Not relevant			
	Impact		Origin	Trend of impact			
Impact	4 Current	<b>9</b> Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing
O Positive X	×	×	×	×			
Negative							

#### 4.13.8 - High impact research/monitoring activities

- Previous answer Cycle 2 (31/07/2014):
  - Not relevant

```
Relevant
```

× Not relevant

# 4.13.9 - Please comment as necessary on how the factors selected as relevant in 4.13 are affecting the property either negatively or positively

Management / institutional factors combine 2 contrary trends: Current, negative, mostly decreasing factors include – minor contradictions b/n boundaries of national PAs and the WHS; a trend on weakening of legal protection of PAs; lack of coordination among the Property's sites; lack of financial and human resources, especially in regional parks. Expected positive changes involve restructuring of regional parks, an increase in state and private funding both for conservation and research, etc.

#### 4.14. Other factor(s)

#### 4.14.1 - Other factor(s)

Restructuring of regional parks Following the Monitoring Mission of 2019, the State Party initiated work on improving management of the Property. The State considers transforming at least two of the regional parks into a one federal national park with a stricter protection regime. It will also allow to improve coordination among the Property components, increase provision of financial and human resources as well as strengthen conservation, research and monitoring capacities.

#### 4.15. Factors Summary Table

#### 4.15.1 - Factors Summary Table

Name	Impact			Origin		Trend
4.1 Buildings and Development						
4.1.4 Major visitor accommodation and associated infrastructure						
	0		9		۴	
4.1.5 Interpretative and visitation facilities	٢	9	9	٢	٢	
4.2 Transportation Infrastructure						
4.2.1 Ground transport infrastructure						
	0	9	9	۹	٢	1
4.2.3 Air transport infrastructure	٢	9		٢		1

	9		9	٢		<b>→</b>
4.2.4 Marine transport infrastructure						
	0		9	٢	Ċ	
4.2.5 Effects arising from use of transportation infrastructure						
	0	9		٢	۴	1
4.3 Services Infrastructures						
4.3.4 Localised utilities						
	9		9		٢	<b>→</b>
4.3.5 Major linear utilities						
	9		9		Ċ	1
4.4 Pollution						
4.4.1 Pollution of marine waters						
	9	4			Ċ	1
4.4.2 Ground water pollution	•		~3		~	
	9		4		Ċ	<b>→</b>
4.4.3 Surface water pollution	0		9		18	
4.4.5 Solid waste	•		-1		G	~
4.4.5 JUILU WASIE	٢	<b>1</b>		٩	æ	7
4.5 Biological resource use/modification						
4.5.1 Fishing/collecting aquatic resources						
	9	9			Ċ	<b>→</b>
4.5.2 Aquaculture	٢	4			Ċ	<b>→</b>
4.5.3 Land conversion						
	9	9			Ċ	<b>→</b>
4.5.7 Subsistence wild plant collection	٢	9		۲	Ċ	<b>→</b>
4.5.8 Commercial hunting	٢	9		٢	Ċ	<b>→</b>
4.5.9 Subsistence hunting	٢	9		٢	Ċ	<b>→</b>
4.5.10 Forestry/Wood production	٢	9		٢	Ċ	<b>→</b>
4.6 Physical resource extraction						
4.6.1 Mining						
	9	9	4		Ċ	<b>→</b>
4.7 Local conditions affecting physical fabric						
4.7.3 Temperature						
	9	4			Ċ	
4.7.6 Water (rain/water table)	•	<i>•</i>				7
	9	9			Ċ	

4.7.7 Pests										
4.1.1.633	0	<b>1</b>		۲	100					
4.8 Social/Cultural uses of heritage	-	7		G	9	*				
		~			~					
4.8.2 Society's valuing of heritage	٥	9			¢					
	9	4			Ċ	1				
4.8.5 Identity, social cohesion, changes in local population and community	٢	4			Ċ	1				
	9	4			Ċ	1				
4.8.6 Impacts of tourism/Visitation/Recreation	٢	4		٢		<b>→</b>				
	0	4		٢	۴	1				
4.9 Other human activities										
4.9.1 Illegal activities										
	0	4		٢	Ċ	<b>→</b>				
4.9.2 Deliberate destruction of heritage										
	9	4		٢	Ċ	<b>→</b>				
4.10 Climate change and severe weather events										
4.10 Climate change and severe weather events 4.10.1 Storms										
	0	<b>1</b>			1. Contraction of the second s					
	•	-			G	·				
4.10.2 Flooding										
	0	4			¢	-				
4.10.6 Temperature change										
	0	4	9		٢	1				
4.11 Sudden ecological or geological events										
4.11.1 Volcanic eruption	٢	4	9	٢	Ċ					
	•	9 9	9 9	0	E E	⇒ ⇒				
4.11.1 Volcanic eruption 4.11.2 Earthquake	9	9 9	4	•	E.	<b>→</b>				
4.11.2 Earthquake	•	9 9 9	9 9 9	0	E E	† † †				
	9	9 9 9	4 4 4	0	E E	† † †				
4.11.2 Earthquake	9	4 4 4	9 9 9 9	0	E E E E	↑ ↑ ↑				
4.11.2 Earthquake	9	9 9 9 9	9 9 9 9	0	E E E E	→				
4.11.2 Earthquake 4.11.3 Tsunami/Tidal wave 4.11.4 Avalanche/Landslide	9	9 9 9 9 9	9 9 9 9	0	E E E E	<ul> <li>→</li> <li>→</li> <li>→</li> <li>→</li> <li>→</li> </ul>				
4.11.2 Earthquake 4.11.3 Tsunami/Tidal wave	9	9 9 9 9	9 9 9 9 9	0	E E E E E	→ → →				
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition	9	9 9 9 9 9	9 9 9 9 9	0	(5) (5) (5) (5) (5) (5) (5) (5) (5) (5)	→ → → →				
4.11.2 Earthquake 4.11.3 Tsunami/Tidal wave 4.11.4 Avalanche/Landslide	9	9 9 9 9 9 9	9 9 9 9 9 9	0	(F (F) (F) (F) (F) (F) (F) (F) (F) (F) (					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)	9	9 9 9 9 9 9 9	9 9 9 9 9 9 9	0	۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)         4.12 Invasive/alien species or hyper-abundant species	9	9 9 9 9 9 9	9 9 9 9 9 9 9	0	(F (F) (F) (F) (F) (F) (F) (F) (F) (F) (					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)		9 9 9 9 9 9 9 9	9 9 9 9 9 9 9 9		8 8 8 8					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)         4.12 Invasive/alien species or hyper-abundant species         4.12.2 Invasive/Alien terrestrial species	9	9 9 9 9 9 9 9	9 9 9 9 9 9 9	<ul> <li>O</li> <li>O&lt;</li></ul>						
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)         4.12 Invasive/Alien species or hyper-abundant species         4.12.2 Invasive/Alien terrestrial species         4.13 Management and institutional factors		9 9 9 9 9 9 9 9	9 9 9 9 9 9 9 9		8 8 8 8					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)         4.12 Invasive/alien species or hyper-abundant species         4.12.2 Invasive/Alien terrestrial species		4 4 4 4 4 4 4 4	9 9 9 9 9 9 9 9 9	•	۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)         4.11.6 Fire (wildfire)         4.12 Invasive/allen species or hyper-abundant species         4.12.2 Invasive/Allen terrestrial species         4.13 Management and institutional factors         4.13.1 Management system/Management plan		4 4 4 4 4 4 4 4 4 4 4 4 4 4	9 9 9 9 9 9 9 9 9 9		8 8 8 8					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)         4.12 Invasive/Alien species or hyper-abundant species         4.12.2 Invasive/Alien terrestrial species         4.13 Management and institutional factors		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	•	۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)         4.11.6 Fire (wildfire)         4.12 Invasive/allen species or hyper-abundant species         4.12.2 Invasive/Allen terrestrial species         4.13 Management and institutional factors         4.13.1 Management system/Management plan		4 4 4 4 4 4 4 4 4 4 4 4 4 4	9       9	•	۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)         4.11.6 Fire (wildfire)         4.12 Invasive/allen species or hyper-abundant species         4.12.2 Invasive/Allen terrestrial species         4.13 Management and institutional factors         4.13.1 Management system/Management plan		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		•	۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲					
4.11.2 Earthquake         4.11.3 Tsunami/Tidal wave         4.11.3 Tsunami/Tidal wave         4.11.4 Avalanche/Landslide         4.11.5 Erosion and siltation/Deposition         4.11.6 Fire (wildfire)         4.11.7 Erosion and siltation/Deposition         4.11.8 Fire (wildfire)         4.12 Invasive/Alien species or hyper-abundant species         4.12.2 Invasive/Alien terrestrial species         4.13.1 Management and institutional factors         4.13.1 Management system/Management plan         4.13.2 Legal framework				•	۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲					

4.13.4 Managemen	4.13.4 Management activities				٢	9	9	۲	٢	1
4.13.5 Financial re	4.13.5 Financial resources						9	۲	Ċ	1
					0	9		۲	Ċ	<b>N</b>
4.13.6 Human reso	ources				٢		9	۲	G	/
					0	9		۲	Ċ	\$
4.13.7 Low impact	research/monitoring act	ivities			٢	4	9	٢	¢	
Legend	4 Current	9 Potential	Negative	O Positive	<ol> <li>Insi</li> </ol>	de		C Outsie	de	

#### 4.16. Assessment of current and potential positive and negative factors

#### 4.16.1 - Assessment of current and potential negative and positive factors

4.1 Buildings and Development

Name		Impact		Origin		Trend
4.1.4 Majo	r visitor accommodation and associated infrastructure					
		0	9		۴	
Spatial sc	ale - Area affected by the factor					
×	Restricted					
	Localised					
	Extensive					
	Widespread					
Temporal	scale - Occurence of the impact					
×	One off or rare					
	Intermittent or sporadic					
	Frequent					
	On-going					
Impact - Ir	npact on the attributes					
	Insignificant					
	Minor					
×	Significant					
	Major					
Managem	ent response - Capacity of management to respond					
	High capacity					
	Medium capacity					
×	Low capacity					
	No capacity and / or resources					
Trend - De	velopement over the last 6 years					
	Decreasing					
	Static					
×	Increasing					
Name		Impact		Origin		Trend

4.1.5 Interp	pretative and visitation facilities	٢	4	4	٩	٢	1			
Spatial sca	Ile - Area affected by the factor									
	Restricted									
	Localised									
×	Extensive									
	Widespread									
Temporal	Temporal scale - Occurence of the impact									
	One off or rare									
	Intermittent or sporadic									
	Frequent									
×	On-going									
Impact - In	apact on the attributes									
	Insignificant									
	Minor									
×	Significant									
	Major									
Manageme	nt response - Capacity of management to respond									
	High capacity									
×	Medium capacity									
	Low capacity									
	No capacity and / or resources									
Trend - De	velopement over the last 6 years									
	Decreasing									
	Static									
×	Increasing									

#### 4.2 Transportation Infrastructure

Name		Impact		Origin		Trend	
4.2.1 Grou	ind transport infrastructure						
		9	9	9	0	C	1
Spatial sc	ale - Area affected by the factor						
	Restricted						
×	Localised						
	Extensive						
	Widespread						
Temporal	scale - Occurence of the impact						
	One off or rare						
×	Intermittent or sporadic						
	Frequent						
	On-going						
Impact - In	npact on the attributes						

Volcanoes of Kamchatka

	Insignificant					
	Minor					
×	Significant					
	Major					
Managem	ent response - Capacity of management to respond					
	High capacity					
	Medium capacity					
×	Low capacity					
	No capacity and / or resources					
Trend - De	evelopement over the last 6 years					
	Decreasing					
	Static					
×	Increasing					
Name			t		Origin	Trend
4.2.3 Air t	ransport infrastructure	٢	4		٢	1
		0		4	٢	<b>→</b>
Spatial sc	ale - Area affected by the factor					
×	Restricted					
	Localised					
	Extensive					
	Widespread					
Temporal	scale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - In	mpact on the attributes					
	Insignificant					
×	Minor					
	Significant					
	Major					
Managem	ent response - Capacity of management to respond					
	High capacity					
×	Medium capacity					
	Low capacity					
	No capacity and / or resources					
Trend - De	evelopement over the last 6 years					
	Decreasing					

Static

Increasing

х

Name		Impact		Origin	Trenc		
4.2.4 Marin	e transport infrastructure						
		٢		9	٢	Ċ	
Snatial sca	le - Area affected by the factor						
×	Restricted						
^							
	Localised						
	Extensive						
	Widespread						
	scale - Occurence of the impact						
×	One off or rare						
	Intermittent or sporadic						
	Frequent						
	On-going						
Impact - Im	pact on the attributes						
	Insignificant						
×	Minor						
	Significant						
	Major						
Manageme	nt response - Capacity of management to respond						
	High capacity						
	Medium capacity						
×	Low capacity						
	No capacity and / or resources						
Trend - De	velopement over the last 6 years						
	Decreasing						
	Static						
×	Increasing						

		•g	Origin	
4.2.5 Effects arising from use of transportation infrastructure				
⊖	9	۲	Ċ	

# Spatial scale Area affected by the factor Restricted Restricted Localised Localised Widespread Widespread Temporal scale One off or rare Intermittent or sporadic Intermittent or sporadic Intermittent or sporadic On-going

	Insignificant								
	Minor								
	Significant								
×	Major								
Manageme	Management response - Capacity of management to respond								
	High capacity								
	Medium capacity								
×	Low capacity								
	No capacity and / or resources								
Trend - De	velopement over the last 6 years								
	Decreasing								
	Static								
×	Increasing								

#### 4.3 Services Infrastructures

Name	Impact			Origin	Trend	
4.3.4 Localised utilities						
	0		9		Ċ	<b>→</b>

Spatial sca	le - Area affected by the factor	
	Restricted	
	Localised	
	Extensive	
	Widespread	
Temporal s	scale - Occurence of the impact	
	One off or rare	
	Intermittent or sporadic	
	Frequent	
	On-going	
Impact - Im	pact on the attributes	
	Insignificant	
	Minor	
	Significant	
	Major	
Manageme	nt response - Capacity of management to respond	
	High capacity	
	Medium capacity	
	Low capacity	
	No capacity and / or resources	
Trend - Dev	velopement over the last 6 years	
	Decreasing	
	Static	
	Increasing	
Volcanoes	of Kamchatka	23 c

Name		Impact			Origin	Trend	
4.3.5 Major	linear utilities						
		٢		9		Ċ	
Snatial sca	Ile - Area affected by the factor						
×	Restricted						
^							
	Localised						
	Extensive						
_	Widespread						
Temporal s	scale - Occurence of the impact						
	One off or rare						
×	Intermittent or sporadic						
	Frequent						
	On-going						
Impact - Im	pact on the attributes						
	Insignificant						
×	Minor						
	Significant						
	Major						
Manageme	Int response - Capacity of management to respond						
	High capacity						
×	Medium capacity						
	Low capacity						
	No capacity and / or resources						
Trend - De	velopement over the last 6 years						
	Decreasing						
	Static						
×	Increasing						

#### 4.4 Pollution

Name		Impact		Origin		Trend
4.4.1 Pollu	ion of marine waters					
		9	9		Ċ	
Spatial sca	le - Area affected by the factor					
•	•					
	Restricted					
×	Localised					
	Extensive					
	Widespread					
Temporal	scale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					

	Frequent
×	On-going
Impact - Im	pact on the attributes
	Insignificant
×	Minor
	Significant
	Major
Manageme	nt response - Capacity of management to respond
	High capacity
	Medium capacity
×	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

Name	Impact	:		Origin		Trend
4.4.2 Ground water pollution						
	9		9		Ċ	<b></b>

Spatial scale -	Area affected	by the factor

Spatial sca	ale - Area affected by the factor
	Restricted
×	Localised
	Extensive
	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
×	Intermittent or sporadic
	Frequent
	On-going
Impact - Im	npact on the attributes
	Insignificant
×	Minor
	Significant
	Major
Manageme	ent response - Capacity of management to respond
	High capacity
	Medium capacity
×	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing

	Static
×	Increasing

Name		Impact		Origin		Trend
4.4.3 Surfa	ce water pollution					
		0	9		Ċ	<b>→</b>
Spatial sca	Ile - Area affected by the factor					
	Restricted					
×	Localised					
	Extensive					
	Widespread					
Temporal s	scale - Occurence of the impact					
	One off or rare					
×	Intermittent or sporadic					
	Frequent					
	On-going					
Impact - Im	pact on the attributes					
	Insignificant					
×	Minor					
	Significant					
	Major					
Manageme	nt response - Capacity of management to respond					
	High capacity					
	Medium capacity					
×	Low capacity					
	No capacity and / or resources					
Trend - De	velopement over the last 6 years					
	Decreasing					
	Static					
×	Increasing					

Name	Impact			Origin	Trend		
4.4.5 Solid waste							
	9	9		۲	Ċ		

#### Spatial scale - Area affected by the factor

Spatial Sca	e - Area anecteu by the factor
	Restricted
	Localised
×	Extensive
	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic

×	Frequent
	On-going
Impact - Im	pact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Managemer	nt response - Capacity of management to respond
	High capacity
	Medium capacity
×	Low capacity
	No capacity and / or resources
Trend - Dev	elopement over the last 6 years
	Decreasing
	Static
×	Increasing

#### 4.5 Biological resource use/modification

Name		Impact		Origin		Trend
4.5.1 Fishi	4.5.1 Fishing/collecting aquatic resources					
		0	9		Ċ	<b>→</b>
Spatial sc	ale - Area affected by the factor					
	Restricted					
	Localised					
×	Extensive					
	Widespread					
Temporal	scale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - In	npact on the attributes					
	Insignificant					
	Minor					
	Significant					
×	Major					
Managemo	ent response - Capacity of management to respond					
	High capacity					
×	Medium capacity					
	Low capacity					
	No capacity and / or resources					
Trend - De	velopement over the last 6 years					

	Decreasing
×	Static
	Increasing

Name	Impact		Origin		Trend		
4.5.2 Aquaculture		0	9			Ċ	<b>→</b>
Spatial se	ale - Area affected by the factor						
	Restricted						
×	Localised						
	Extensive						
	Widespread						
Tempora	scale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
	Frequent						
×	On-going						
Impact -	mpact on the attributes						
	Insignificant						
	Minor						
×	Significant						
	Major						
Managen	ent response - Capacity of management to respond						
	High capacity						
×	Medium capacity						
	Low capacity						
	No capacity and / or resources						
Trend - D	evelopement over the last 6 years						
	Decreasing						
×	Static						
	Increasing						

Name	Impact			Origin	Trend	
4.5.3 Land conversion						
	0	9			۴	<b>→</b>

# Spatial scale Area affected by the factor Restricted Localised Localised Extensive Widespread Videspread Temporal - Occurrence of the impact One off or rare

×	Intermittent or sporadic								
	Frequent								
	On-going								
Impact - In	Impact - Impact on the attributes								
	Insignificant								
×	Minor								
	Significant								
	Major								
Manageme	ent response - Capacity of management to respond								
	High capacity								
	Medium capacity								
×	Low capacity								
	No capacity and / or resources								
Trend - De	velopement over the last 6 years								
	Decreasing								
	Static								
×	Increasing								
Name		Impact			Origin		Trend		
4.5.7 Subs	istence wild plant collection	$\odot$	9			C	$\rightarrow$		

Name	Impact		Origin		Trend	
4.5.7 Subsistence wild plant collection	٢	9	٢	Ċ	<b>→</b>	

Spatial sca	Ile - Area affected by the factor
	Restricted
×	Localised
	Extensive
	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - Im	apact on the attributes
	Insignificant
×	Minor
	Significant
	Major
Manageme	Int response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years

	Decreasing
×	Static
	Increasing

Name		Impact		Origin		Trend
4.5.8 Comm	ercial hunting	٢	9	۲	Ċ	<b>→</b>
Spatial sca	e - Area affected by the factor					
	Restricted					
×	Localised					
	Extensive					
	Widespread					
Temporal s	cale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - Im	pact on the attributes					
	Insignificant					
×	Minor					
	Significant					
	Major					
Manageme	nt response - Capacity of management to respond					
	High capacity					
×	Medium capacity					
	Low capacity					
	No capacity and / or resources					
Trend - Dev	elopement over the last 6 years					
×	Decreasing					
	Static					
	Increasing					

Name		Impact			Origin		Trend
4.5.9 Subs	4.5.9 Subsistence hunting		9		•		<b>→</b>
Spatial sca	Ie - Area affected by the factor						
	Restricted						
×	Localised						
	Extensive						
	Widespread						
Temporal	scale - Occurence of the impact						
	One off or rare						

	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - Im	pact on the attributes					
	Insignificant					
×	Minor					
	Significant					
	Major					
Manageme	nt response - Capacity of management to respond					
	High capacity					
×	Medium capacity					
	Low capacity					
	No capacity and / or resources					
Trend - Dev	velopement over the last 6 years					
	Decreasing					
×	Static					
	Increasing					
		_				
Name		Impact	1	Origin		Trend
4.5.10 Fore	stry/Wood production	٢	4	٢	۴	<b>→</b>

Spatial co	ale - Area affected by the factor					
Spatial Sc						
	Restricted					
×	Localised					
	Extensive					
	Widespread					
Temporal	scale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - In	npact on the attributes					
	Insignificant					
×	Minor					
	Significant					
	Major					
Managem	ent response - Capacity of management to respond					
	High capacity					
	Medium capacity					
×	Low capacity					
	No capacity and / or resources					
Trend - De	Trend - Developement over the last 6 years					

	Decreasing
×	Static
	Increasing

#### 4.6 Physical resource extraction

Name	Name		Impact		Origin		Trend	
4.6.1 Minin	4.6.1 Mining							
		0	9	9		٢	<b>→</b>	
Spatial sca	le - Area affected by the factor							
×	Restricted							
	Localised							
	Extensive							
	Widespread							
Temporal s	scale - Occurence of the impact							
	One off or rare							
×	Intermittent or sporadic							
	Frequent							
	On-going							
Impact - Im	ppact on the attributes							
	Insignificant							
	Minor							
×	Significant							
	Major							
Manageme	nt response - Capacity of management to respond							
	High capacity							
	Medium capacity							
×	Low capacity							
	No capacity and / or resources							
Trend - De	velopement over the last 6 years							
×	Decreasing							
	Static							
	Increasing							

#### 4.7 Local conditions affecting physical fabric

Name		Impact			Origin	
4.7.3 Temperature						
	٢	9			Ċ	
One still a sele. As a strand day the factor						
Spatial scale - Area affected by the factor						
Restricted						
Localised						
Extensive						

Temporal-sector of the impact       One off or rare       Internitient or sporadic       Frequent       On-oping       Insignificant       Insignificant       Minor       Significant       Major       Insignificant       Insignificant       Insignificant       More       Significant       Insignificant       Insignificant </th <th>×</th> <th>Widespread</th>	×	Widespread						
intermittent or sporadic       Frequent       Frequent       Impact-intertributes       Impact-intertributes       Minor       Significant       Magor       Manger       Impactivie       Magor       Impactivie       Modium capacity of management to respond       Medium capacity       Impactivie       Impactivie       Impactivie       Sequence       Impactivie       Sequence       Impactivie       <	Temporal s	Temporal scale - Occurence of the impact						
Frequent       Frequent       On-going       Impact		One off or rare						
X       On-going         Impact		Intermittent or sporadic						
Impact - Impact		Frequent						
Insignificant         Minor         Significant         Major         Management to respond         Management to respond         Medium capacity of management to respond         Needium capacity         Medium capacity         Decreasing         Decreasing         Static	×	On-going						
Minor         Significant         Major         Management to respond         Medium capacity of management to respond         Medium capacity         Nedium capacity         No capacity and / or resources         Tend - U = U = U = U = U = U = U = U = U = U	Impact - Im	pact on the attributes						
Significant         Airage         Mange         Capacity of management to respond         Medium capacity         Medium capacity         Kow capacity         No capacity and / or resources         Tend - Deversion of the last 6 years         Decreasing         Static		Insignificant						
Major         Mangemet - Capacity of management to respond         High capacity         Medium capacity         Medium capacity         Low capacity         No capacity and / or resources         Tend - Decreasing         Decreasing         Static		Minor						
Management response - Capacity of management to respond         High capacity         Medium capacity         X       Medium capacity         No capacity and / or resources         Trend - Decreasing         Decreasing         Static	×	Significant						
High capacity         Medium capacity         Low capacity         No capacity and / or resources         Trend - Depresent over the last 6 years         Decreasing         Static		Major						
Medium capacity         K         Low capacity         No capacity and / or resources         Trend - Decreasing         Decreasing         Static	Manageme	nt response - Capacity of management to respond						
kow capacity       No capacity and / or resources       Trend - Decreasing       bcreasing       Static		High capacity						
No capacity and / or resources       Trend - Developement over the last 6 years       Decreasing       Static		Medium capacity						
Trend - Developement over the last 6 years       Decreasing       Static	×	Low capacity						
Decreasing Static		No capacity and / or resources						
Static	Trend - Dev	velopement over the last 6 years						
		Decreasing						
X Increasing		Static						
	×	Increasing						

Name	Impact	Impact		Origin		Trend
4.7.6 Water (rain/water table)						
	0	9			Ċ	

Spatial scale - Area affected by	the factor
opatial scale - Alea allected b	, the factor

Spatial Sca	
	Restricted
	Localised
	Extensive
×	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - Im	npact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Manageme	ent response - Capacity of management to respond
	High capacity
	Medium capacity

×	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

Name	Impact	Impact		Origin		Trend
4.7.7 Pests						
	٢	9		٢	Ċ	1

#### Spatial scale - Area affected by the factor

Spatial Sca	e - Area anecteu by the factor
	Restricted
×	Localised
	Extensive
	Widespread
Temporal s	cale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - Im	pact on the attributes
	Insignificant
×	Minor
	Significant
	Major
Manageme	nt response - Capacity of management to respond
	High capacity
	Medium capacity
×	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

#### 4.8 Social/Cultural uses of heritage

Name		:	Origin		Trend
4.8.2 Society's valuing of heritage		9		Ċ	
	0	9		Ċ	1
Spatial scale - Area affected by the factor					
Restricted					
Localised					

	Extensive
×	Widespread
Temporal	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - In	npact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Managemo	ent response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

#### Name

Name	Impact		Origin		Trend	
4.8.5 Identity, social cohesion, changes in local population and community	٢	4			Ċ	
	0	4			Ċ	

#### Spatial scale - Area affected by the factor

Spatial Sca	ile - Area anecteu by the factor					
	Restricted					
	Localised					
	Extensive					
×	Widespread					
Temporal s	Temporal scale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - Im	Impact - Impact on the attributes					
	Insignificant					
	Minor					
×	Significant					
	Major					
Manageme	Management response - Capacity of management to respond					
	High capacity					

Volcanoes of Kamchatka

×	Medium capacity					
	Low capacity					
	No capacity and / or resources					
Trend - Developement over the last 6 years						
	Decreasing					
	Static					
×	Increasing					

Name	Impact		Origin		Trend	
4.8.6 Impacts of tourism/Visitation/Recreation	٢	9		۲		<b>→</b>
	9	9		٢	Ċ	1

#### Spatial scale - Area affected by the factor

	•					
	Restricted					
	Localised					
×	Extensive					
	Widespread					
Temporal s	Temporal scale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - Im	Impact - Impact on the attributes					
	Insignificant					
	Minor					
	Significant					
×	Major					
Manageme	ent response - Capacity of management to respond					
	High capacity					
	Medium capacity					
×	Low capacity					
	No capacity and / or resources					
Trend - De	velopement over the last 6 years					
	Decreasing					
	Static					
×	Increasing					

#### 4.9 Other human activities

Name	Impact		Origin		Trend	
4.9.1 Illegal activities						
	٢	4		٢	Ċ	<b>→</b>
Provided and a Area official devide factor						
Spatial scale - Area affected by the factor						
Restricted						

×	Localised
	Extensive
	Widespread
Temporal	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - In	npact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Managem	ent response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	evelopement over the last 6 years
×	Decreasing
	Static
	Increasing

### Name

Impact		Origin		Trend
0	9	٢	٢	<b>→</b>

Spatial sca	le - Area affected by the factor
	Restricted
×	Localised
	Extensive
	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
×	Intermittent or sporadic
	Frequent
	On-going
Impact - Im	pact on the attributes
	Insignificant
×	Minor
	Significant
	Major

Management response - Capacity of management to respond

	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
×	Static
	Increasing

### 4.10 Climate change and severe weather events

Name		Impact			Origin	Trend	
4.10.1 Sto	4.10.1 Storms						
		0	4			۴	
<b>Creation</b>							
Spatial sc	ale - Area affected by the factor						
	Restricted						
×	Localised						
	Extensive						
	Widespread						
Temporal	scale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
×	Frequent						
	On-going						
Impact - In	npact on the attributes						
	Insignificant						
×	Minor						
	Significant						
	Major						
Managem	ent response - Capacity of management to respond						
	High capacity						
	Medium capacity						
×	Low capacity						
	No capacity and / or resources						
Trend - De	velopement over the last 6 years						
	Decreasing						
	Static						
×	Increasing						
Name		Impact			Origin		Trend
4.10.2 Flo	bding						
		٢	9			Ċ	1
Spotial ca	ale. Area offerted by the factor						
Spatial SC	ale - Area affected by the factor						

×	Restricted
	Localised
	Extensive
	Widespread
<b>T</b>	
Temporal	scale - Occurence of the impact
	One off or rare
×	Intermittent or sporadic
	Frequent
	On-going
Impact - In	npact on the attributes
	Insignificant
×	Minor
	Significant
	Major
Managem	ent response - Capacity of management to respond
	High capacity
	Medium capacity
×	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

e		Impact				Trend	
4.10.6 Temperature change							
	0	9	9		Ċ	1	

### Spatial scale - Area affected by the factor

Spatial Sca	ile - Area anecteu by the factor
	Restricted
	Localised
	Extensive
×	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - Im	npact on the attributes
	Insignificant
	Minor
×	Significant
	Major

Manageme	ent response - Capacity of management to respond
	High capacity
	Medium capacity
×	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

### 4.11 Sudden ecological or geological events

							Tren
Name		Impact			Origin	-	
4.11.1 Vol	canic eruption	0	4	9	٩	¢	<b>→</b>
		9	4	9	۲	Ċ	<b>→</b>
Spatial sc	ale - Area affected by the factor						
	Restricted						
×	Localised						
	Extensive						
	Widespread						
Temporal	scale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
	Frequent						
×	On-going						
Impact - I	npact on the attributes						
	Insignificant						
	Minor						
	Significant						
×	Major						
Managem	ent response - Capacity of management to respond						
	High capacity						
	Medium capacity						
×	Low capacity						
	No capacity and / or resources						
Trend - De	evelopement over the last 6 years						
	Decreasing						
×	Static						
	Increasing						

Name		Impact			Origin		
4.11.2 Earthquake							
	0	9	9	۲	٢	$\rightarrow$	

### Spatial scale - Area affected by the factor Restricted Localised × Extensive Widespread Temporal scale - Occurence of the impact One off or rare Intermittent or sporadic Frequent × On-going Impact - Impact on the attributes Insignificant × Minor Significant Major Management response - Capacity of management to respond High capacity Medium capacity × Low capacity No capacity and / or resources Trend - Developement over the last 6 years Decreasing × Static Increasing

Name	Impact		Origin		Trend	
4.11.3 Tsunami/Tidal wave						
	0	9	9		Ċ	<b>→</b>

### Spatial scale - Area affected by the factor

XRestrictedLocalisedExtensiveWidespreadTemport		
kensive       Extensive       Videspread       Temport - Courterce of the impact       Interritettor of sporadic       interritettor       interritettor of sporadic	×	Restricted
kidespread       Temporal       Course of the impact       nermittent or sporadic       intermittent or sporadic       or.going       Impact-turbutes       inspirificant       No		Localised
Tempor       One officience of the impact         Image: A constraint of the impact       One officience of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact       Image: A constraint of the impact         Image: A constraint of the impact of the impac		Extensive
Image: Constraint of a constr		Widespread
Internitient or sporadic       Frequent       On-going       Impact - Unit tributes       Insignificant       Minor	Temporal s	scale - Occurence of the impact
Frequent       On-going       Impact - Unit on the attributes       Insignificant       Minor	×	One off or rare
On-going       Impact - Imp		Intermittent or sporadic
Impact - Impact on the attributes       Insignificant       X     Minor		Frequent
Insignificant       Minor		On-going
X Minor	Impact - Im	npact on the attributes
		Insignificant
Significant	×	Minor
		Significant

Management response - Capacity of	of management to respond
-----------------------------------	--------------------------

wanageme	in response - capacity or management to respond
	High capacity
	Medium capacity
×	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
×	Static

Increasing

Name	Impact	t		Origin		Trend
4.11.4 Avalanche/Landslide						
	0	9	9	٢	Ċ	<b>→</b>

### Spatial scale - Area affected by the facto

Spatial sca	le - Area affected by the factor						
	Restricted						
	Localised						
×	Extensive						
	Widespread						
Temporal	scale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
×	Frequent						
	On-going						
Impact - Im	pact on the attributes						
	Insignificant						
×	Minor						
	Significant						
	Major						
Manageme	nt response - Capacity of management to respond						
	High capacity						
	Medium capacity						
×	Low capacity						
	No capacity and / or resources						
Trend - De	velopement over the last 6 years						
	Decreasing						
	Static						
×	Increasing						
		_					
Name		Impact			Origin		Trend
4.11.5 Eros	ion and siltation/Deposition		~	~			
		9	9	9	٢	Ċ	

	Restricted
×	Localised
	Extensive
	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - Im	npact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Manageme	ent response - Capacity of management to respond
	High capacity
	Medium capacity
×	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

Name	Impact		Origin		Trend	
4.11.6 Fire (wildfire)						
	0	9	9	٢	Ċ	

Spatial sca	le - Area affected by the factor
	Restricted
×	Localised
	Extensive
	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
×	Frequent
	On-going
Impact - Im	pact on the attributes
	Insignificant
	Minor
×	Significant
	Major

# Management to respond High capacity Medium capacity Medium capacity Low capacity No capacity and / or resources Decreasing Decreasing Static Increasing Increasing

### 4.12 Invasive/alien species or hyper-abundant species

Name		Impact			Origin		Trend
4.12.2 Inva	sive/Alien terrestrial species						
		0	9	9	٩	Ċ	1
Spatial sca	le - Area affected by the factor						
×	Restricted						
	Localised						
	Extensive						
	Widespread						
Temporal s	cale - Occurence of the impact						
	One off or rare						
×	Intermittent or sporadic						
	Frequent						
	On-going						
Impact - Im	pact on the attributes						
	Insignificant						
×	Minor						
	Significant						
	Major						
Manageme	nt response - Capacity of management to respond						
	High capacity						
	Medium capacity						
×	Low capacity						
	No capacity and / or resources						
Trend - Dev	velopement over the last 6 years						
	Decreasing						
	Static						
×	Increasing						

### 4.13 Management and institutional factors

Name	Impact	Origin	Trend
4.13.1 Management system/Management plan			



Spatial sca	ale - Area affected by the factor
	Restricted
×	Localised
	Extensive
	Widespread
Temporal	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - In	npact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Manageme	ent response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
×	Decreasing
	Static
	Increasing

Name	Impact			Origin		Trend
4.13.2 Legal framework						
	0	9	9		Ċ	

### Spatial scale - Area affected by the factor

	Restricted
×	Localised
^	
	Extensive
	Widespread
Temporal	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - Im	npact on the attributes
	Insignificant
	Minor

×	Significant
	Major
Manageme	ent response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

×		

Name	Impact	:		Origin		Trend
4.13.3 Governance	٢	9	9	٢	Ċ	

### Spatial scale - Area affected by the factor

Spatial Sca	
×	Restricted
	Localised
	Extensive
	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - Im	pact on the attributes
	Insignificant
	Minor
	Significant
×	Major
Manageme	nt response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
	Static

Name Impact Origin Trend ○ ┩ ┩ ⊙ 4.13.4 Management activities 

Increasing

×

Spatial sca	ale - Area affected by the factor
	Restricted
	Localised
×	Extensive
	Widespread
Temporal	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - In	mpact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Manageme	ent response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	evelopement over the last 6 years
	Decreasing
	Static

× Increasing

Name	Impac	Impact		Origin		Trend
4.13.5 Financial resources	٢		9	۹	Ċ	
	٢	4		٢	Ċ	\$
Spatial scale - Area affected by the factor						

	Restricted
	Localised
×	Extensive
	Widespread
Temporal	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - In	npact on the attributes
	Insignificant
	Minor

×	Significant
	Major
Manageme	Int response - Capacity of management to respond
	High capacity
	Medium capacity
×	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing

	Static
×	Increasing

Name	Impact	ŧ		Origin		Trend
4.13.6 Human resources	٢		9	٢	Ċ	
	0	9		٢	Ċ	$\mathbf{N}_{i,j}$

### Spatial scale - Area affected by the factor

Spatial Sca							
	Restricted						
	Localised						
×	Extensive						
	Widespread						
Temporal s	cale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
	Frequent						
×	On-going						
Impact - Im	pact on the attributes						
	Insignificant						
	Minor						
×	Significant						
	Major						
Manageme	nt response - Capacity of management to respond						
	High capacity						
	Medium capacity						
×	Low capacity						
	No capacity and / or resources						
Trend - Dev	velopement over the last 6 years						
	Decreasing						
	Static						
×	Increasing						
					_		
Name		Impact			Origin		Trend
4.13.7 Low	impact research/monitoring activities	٢	4	9	٢	Ċ	1

Spatial sc	ale - Area affected by the factor
	Restricted
	Localised
×	Extensive
	Widespread
Temporal	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - In	npact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Managemo	ent response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	evelopement over the last 6 years
	Decreasing
	Static
×	Increasing

### 4.17. Serial inscriptions (national or transnational)

# 4.17.1 - If your property is a serial inscription (national or transnational) please identify which components of the property are impacted by each factor

Terms: Kronotsky – Kronotsky Strict Nature Reserve SKWR – Southern Kamchatka Wildlife Reserve Nalychevo – Nalychevo Regional Nature Park Bystrinsky – Bystrinsky Regional Nature Park SKRNP - Southern Kamchatka Regional Nature Park Kluchevskoy - Kluchevskoy Regional Nature Park Regional Parks -Nalychevo, Bystrinsky, SKRNP, Kluchevskoy Federal PAs - SKWR, Kronotsky 4.1 Buildings and Development 4.1.4 Major visitor accommodation and associated infrastructure: SKWR. 4.1.5 Interpretative and visitation facilities: all components; greater performance of Federal PAs. 4.2 Transportation Infrastructure 4.2.1 Ground transport infrastructure: All Regional Parks. 4.2.3 Air transport infrastructure: All components with greater performance in the air traffic regulation in Federal PAs. 4.2.4 Marine transport infrastructure 4.2.5 Effects arising from use of transportation infrastructure: Kronotsky, SKWR, SKRNP, 4.3 Services Infrastructures 4.3.5 Major linear utilities: Regional Parks, especially SKRNP and Nalychevo. 4.4 Pollution 4.4.1 Pollution of marine waters: Kronotsky, SKWR, SKRNP and partially Nalychevo. 4.4.2 Ground water pollution: SKRNP and Bystrinsky. 4.4.3 Surface water pollution: SKRNP. 4.4.5 Solid waste: All components. 4.5 Biological resource use/modification 4.5.1 Fishing/collecting aquatic resources: All components, except Kluchevskoy. 4.5.2 Aquaculture: All components, except Kluchevskoy. 4.5.3 Land conversion: Nalychevo, Bystrinsky, SKRNP. 4.5.7 Subsistence wild plant collection: Regional Parks. 4.5.8 Commercial hunting: Regional Parks. 4.5.9 Subsistence hunting: Regional Parks. 4.5.10 Forestry/Wood production: Regional Parks. 4.6 Physical resource extraction 4.6.1 Mining: SKRNP and Bystrinsky. 4.7 Local conditions affecting physical fabric 4.7.3 Temperature: All components. 4.7.6 Water (rain/water table): All components. 4.7.7 Pests: Regional Parks. 4.8 Social/Cultural uses of heritage 4.8.2 Society's valuing of heritage: All components, with greater impact on Regional Parks, 4.8.5 Identity, social cohesion, changes in local population and community: All components, with greater impact on Regional Parks. 4.8.6 Impacts of tourism/Visitation/Recreation: All components, with greater impact on Regional Parks. 4.9 Other human activities 4.9.1 Illegal activities: All components, with greater performance in anti-poaching measures in Federal PAs. 4.9.2 Deliberate destruction of heritage: Regional Parks. 4.10 Climate change and severe weather events 4.10.1 Storms: All components. 4.10.2 Flooding: Nalychevo, Bystrinsky. 4.10.6 Temperature change: All components. 4.11 Sudden ecological or geological events 4.11.1 Volcanic eruption: All components. 4.11.2 Earthquake: All components. 4.11.3 Tsunami/Tidal wave: Kronotsky, SKWR, SKRNP and partially Nalychevo. 4.11.4 Avalanche/Landslide: All components. 4.11.5 Erosion and siltation/Deposition: All components, with greater impact on Regional Parks. 4.11.6 Fire (wildfire): All components, with higher risks in Bystrinsky. 4.12 Invasive/alien species or hyper-abundant species 4.12.2 Invasive/Alien terrestrial species: All components, with greater impact on Regional Parks. 4.13 Management and institutional factors 4.13.1 Management system/Management plan: Regional Parks. 4.13.2 Legal framework: All components. 4.13.4 Management activities: All components with greater performance of Federal PAs. 4.13.5 Financial resources: All components with especially negative effects in Regional Parks. 4.13.6 Human resources: All components with especially negative effects in Regional Parks. 4.13.7 Low impact research/monitoring activities: All components with greater performance of Federal PAs.

### 4.18. Prediction of the state of conservation at next cycle of Periodic Reporting.

# 4.18.1 - Please predict what the state of conservation of each attribute will be approximately 6 years from now (at the time of the next cycle of Periodic Reporting)

	Attribute	Preserved	Compromised	Seriously compromised	Lost
4.18.1.1	Criterion (vii): landscapes of exceptional natural beauty - visual and aesthetic significance		×		
4.18.1.2	Criterion (viii): an outstanding example of geological processes and landforms (volcanoes and associated volcanic features) - naturalness and intactness of physical processes	×			
4.18.1.3	Criterion (ix): a wide range of near pristine terrestrial ecosystems (subarctic and boreal) – naturalness and intactness of ecological processes and systems		×		
4.18.1.4	Criterion (x): the most important and significant natural habitats for in situ conservation of biological diversity – the greatest diversity of salmonid fish; viability of populations	×			
4.18.1.5	Criterion (x): the most important and significant natural habitats for in situ conservation of biological diversity -the size and viability of the populations of key terrestrial species		×		

### 5. Protection and Management of the Property

### 5.1. Boundaries and Buffer Zones

### 5.1.1 - Are the boundaries of the World Heritage property adequate to maintain the property's Outstanding Universal Value? The boundaries do not limit the ability to maintain the property's Outstanding Universal Value but they could be improved

### 5.1.2 - Are the boundaries of the World Heritage property known and recognised?

The boundaries are known by both the management authority and local communities/landowners

# 5.1.3 - Are the buffer zone(s) of the World Heritage property adequate to maintain the property's Outstanding Universal Value? The property has no buffer zone, but there is a need for one

### 5.1.4 - Are the boundaries of the buffer zones known and recognised?

The property has no known and recognised buffer zone

### 5.1.5 - Comments, conclusions and/or recommendations related to boundaries and buffer zones of the World Heritage property

1. The State Party considers transforming at least two of the regional parks into a one federal national park with a stricter protection regime. The restructuring would reduce a number of components and require a technical revision of the maps and description of boundaries. 2. Two buffer zone projects are under development: a Buffer Zone at the Kronotsky Reserve (status: stakeholder consultation; projecting area 146,719ha); a Buffer Zone at the South Kamchatka NP (status: analysis).

### 5.2. Protective Measures

### 5.2.1 - Protective designation (legal, regulatory, contractual, planning, institutional and/or traditional).

The World Heritage property "Volcanoes of Kamchatka" (the Property) is a serial property composed of six different components: two are federal protected areas (Kronotsky Strict Nature Reserve (KSNR) and South Kamchatka Wildlife Refuge (SKWR)) and four are regionally administered nature parks (Bystrinsky (BNP), Nalychevo (NNP), South Kamchatka (SKNP) and Kluchevskoy (KNP)).

The two federal protected areas are under the direct authority of the Federal Ministry of Natural Resources and are management by one management authority. KSNR is a strict nature reserve, corresponding to IUCN category Ia1. The site was also designated in 1984 as a UNESCO biosphere reserve. SKWR is a wildlife refuge corresponding to IUCN category IV2. The four regional protected areas are under the jurisdiction of the regional government of the Kamchatka Krai and are managed by four different protected area authorities under the Department of Nature Resources and Environmental Protection of the regional administration. According to the nomination file, the current status of nature parks corresponds to IUCN category V3. The protected areas of the Property are governed by the national protected area legislation, in particular the federal law "On environmental protection" dating back to 1991 but updated in 2002 and federal law "On specially protected areas and activities permitted in them. The protected area law regulates the organization, protection and use of protected areas. In addition to the already recognized forms of protected areas, the law enabled the establishment of regional level nature parks and other types of protected areas. The law also stipulates that fines collected in federal protected areas are to be designated to the protected areas themselves.

At regional level, the regional law 121 "On specially protected areas of the Kamchatka region" of 1997, altered in 2006 regulates the establishment, organization, protection and utilization of specially protected natural areas. The law establishes the framework for the preservation of unique natural areas under four designations: 1) nature parks 2) wildlife refuges 3) natural monuments and 4) medicinal and healing areas. The law mandates the conservation and/or sustainable-use of the biological resources within these areas. The law also requires Nature Parks to "establish the conditions that allow for traditional resource use practices by indigenous peoples of Kamchatka Oblast for their incorporation in the natural, scientific, educational, and recreational goals of the park."

Source: 2007 RMM mission report

### Comment

The World Heritage property "Volcanoes of Kamchatka" (the Property) is a serial property composed of six different components: two are federal protected areas (Kronotsky Strict Nature Reserve (KSNR) and South Kamchatka Wildlife Refuge (SKWR)) and four are regionally administered nature parks (Bystrinsky (BNP), Nalychevo (NNP), South Kamchatka (SKNP) and Kluchevskoy (KNP)). The two federal protected areas are under the direct authority of the Federal Ministry of Natural Resources and are management by one management authority. KSNR is a strict nature reserve, corresponding to IUCN category Ia1. The site was also designated in 1984 as a UNESCO biosphere reserve. SKWR is a wildlife refuge corresponding to IUCN category IV2. The four regional protected areas are under the jurisdiction of the regional government of the Kamchatka Krai and are managed by a local management authority under the Ministry of Nature Resources and Environmental Protection of the regional administration. According to the nomination file, the current status of nature parks corresponds to IUCN category V3. The protected areas of the Property are governed by the national protected area legislation, in particular the federal law "On environmental protection" dating back to 1991 but updated in 2002 and federal law "On specially protected areas and activities permitted in them. The protected area law regulates the organization,

protection and use of protected areas. In addition to the already recognized forms of protected areas, the law enabled the establishment of regional level nature parks and other types of protected areas. The law also stipulates that fines collected in federal protected areas are to be designated to the protected areas themselves. At regional level, the regional law "On specially protected areas of the Kamchatka region" of 1997 regulates the establishment, organization, protection and utilization of specially protected natural areas. The law establishes the framework for the preservation of unique natural areas under four designations: 1) nature parks 2) wildlife refuges 3) natural monuments and 4) medicinal and healing areas. The law mandates the conservation and/or sustainable-use of the biological resources within these areas. The law also requires Nature Parks to "establish the conditions that allow for traditional resource use practices by indigenous peoples of Kamchatka Oblast for their incorporation in the natural, scientific, educational, and recreational goals of the park."

# 5.2.2 - Please list any legislation and other measures (regulatory -including spatial planning- contractual, institutional or traditional) not included in 5.2.1 and indicate the category

# 5.2.3 - Is the legal framework (i.e. legislation and/or regulation including spatial planning) adequate for maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property?

An adequate legal framework for maintaining of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property exists but there are some deficiencies in implementation

5.2.4 - Is the legal framework (i.e. legislation and/or regulation) adequate in the buffer zone for maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property? The property has no buffer zone

5.2.5 - Is the legal framework (i.e. legislation and/or regulation) in the broader setting of the World Heritage property adequate for maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property?

An adequate legal framework exists for the broader setting of the World Heritage property, but there are some deficiencies in implementation which undermine the maintenance of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the property

### 5.2.6 - Can the legal framework (i.e. legislation and/or regulation) be enforced?

There are major deficiencies in capacity/resources to enforce legislation and/or regulation in the World Heritage property

### 5.2.7 - Please provide a short summary of how the legislation, including spatial planning and other regulation, works in practice

Overall, the legal framework is adequate for maintaining the OUV. Areas of improvement include a greater protection for integrity of regional parks, setting up buffer zones and the development of regulations for tourism activity (compulsory environmental assessment, visitation limits). Whereas all components of the Property wil benefit from the better resource provision, an increase in funding and human resource capacities is critical to ensure adequate legal enforcement in regional parks.

## 5.2.8 - Comments, conclusions and/or recommendations about the information related to the measures taken to protect the World Heritage property

Although national legislation sets up an adequate framework to protect the OUV, enforcement can be limited by a lack of capacities and resources.

### 5.3. Management System/Management Plan

5.3.1 - Please check the box which most closely match the character of the governance and management system of the property Public management system joint national/ local

### If 'Other', please specify

### 5.3.2 - Management System: Please indicate which of the various management tools listed below are used to help protect the property.

A statutory Management Plan or zoning plan for the property.

A code of practice developed by industry

An annual work plan or business plan

### 5.3.3 - Please give a brief description of the management system currently in place at your property

The World Heritage property "Volcanoes of Kamchatka" (the Property) is a serial property composed of six different components: two are federal protected areas (Kronotsky Strict Nature Reserve (KSNR) and South Kamchatka Wildlife Refuge (SKWR)) and four are regionally administered nature parks (Bystrinsky (BNP), Nalychevo (NNP), South Kamchatka (SKNP) and Kluchevskoy (KNP)). The two federal protected areas are under the direct authority of the Federal Ministry of Natural Resources and are management by one management authority. The four regional protected areas are under the jurisdiction of the regional government of the Kamchatka Krai and are managed by a local management authority under the Ministry of Nature Resources and Environmental Protection of the regional administration. Coordination between federal and regional management authorities are regulated by an MoU type of agreement, and there is no integrated management plan in practice. All relevant stakeholder groups are involved in essential decision on the Property management, including, but not limited to local communities, municipalities, landowners, NGOs, and etc.

### 5.3.4 - Management Documents

# 5.3.5 - Has any use been made of the 2011 Recommendation on the Historic Urban Landscape in developing policies and best practices for the protection of this property?

The 2011 Recommendation on the Historic Urban Landscape is not relevant to this property

5.3.6 - If the Historic Urban Landscape Recommendation has been used at this property, please describe briefly what has been done. Not relevant

# 5.3.7 - Has any use been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property?

No use has been made of the World Heritage Policy for Climate Change

# 5.3.8 - If the Climate Change policy has been used, please briefly describe what has been done along with any research on the impacts of Climate Change on the property:

No use has been made of the World Heritage Policy for Climate Change

5.3.9 - Has any use been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property ? No use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties

5.3.10 - If the Strategy for Reducing Risks from Disasters at World Heritage Properties has been used, please briefly describe what has been done

No use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties.

### 5.3.11 - Rate the coordination between the various levels of administration (i.e. national/federal; regional/provincial/state;

### local/municipal etc.) involved in the management of the World Heritage property

There is coordination between the range of administrative bodies involved in the management of the property, but it could be improved

### 5.3.12 - Is the management system/plan adequate to maintain the property's Outstanding Universal Value?

The management system/plan is only partially adequate to maintain the property's Outstanding Universal Value

### 5.3.13 - Is the management system being implemented?

The management system is being only partially implemented

### 5.3.14 - Is there an annual work/action plan and is it being implemented?

An annual work/action plan exists and all of its activities are being implemented and monitored

5.3.15 - Does the management system include formal mechanisms and procedures that ensure participation and contribution of the following groups, living within or near the World Heritage property and/or buffer zone in management decisions that maintain the Outstanding Universal Value of the property?

		Not applicable	No mechanisms for participation	Some participation	Direct participation	Transformative participation in all relevant decision processes
5.3.15.1	Local communities				×	
5.3.15.2	Local authorities					×
5.3.15.3	Landowners in the property and the buffer zone				×	
5.3.15.4	Indigenous peoples				×	
5.3.15.5	Women					×
5.3.15.6	Other specific groups	×				
	If you selected, 'Other specific groups' please specify					

# 5.3.16 - Please rate the cooperation/relationship between the World Heritage property managers/coordinators/staff and the following groups

		Not applicable	Non-existent	Poor	Fair	Good
5.3.16.1	Local communities					×
5.3.16.2	Local/Municipal authorities					×
5.3.16.3	Indigenous peoples					×
5.3.16.4	Landowners					×
5.3.16.5	Women					×
5.3.16.6	Youth/Children					×
5.3.16.7	Researchers					×
5.3.16.8	Local Visitors/Tourists					×
5.3.16.9	National/International tourists					×
5.3.16.10	Tourism Industry					×
5.3.16.11	Local businesses and industries					×
5.3.16.12	NGOs					×
5.3.16.13	Other specific groups	×				
	If you selected 'Other specific groups', please specify					

# 5.3.17 - Please rate the extent to which the management system of your property contributes towards achieving the objectives of the World Heritage Committee's Policy for the Integration of a Sustainable Development Perspective into the Processes of the *World Heritage Convention*

		Not applicable	No contribution	Limited	Significant	Full achievement
5.3.17.1	The management system of the property contributes to gender equality				×	
5.3.17.2	The management system of the property provides ecosystem services/benefits to the local community (e.g. fresh air, water, food, medicinal plants)				×	
5.3.17.3	The management system of the property contributes to social inclusion and equity, improving opportunities for all, irrespective of age, sex, disability, ethnicity, origin, religion or economic or other status				×	
5.3.17.4	The management system of the property integrates a human rights-based approach				×	
5.3.17.5	The management system of the property contributes to fostering inclusive local economic development, and to enhancing livelihood				×	
5.3.17.6	The management system of the property contributes to conflict prevention, including respect for cultural diversity within and around the World Heritage property					×

### 5.3.18 - Please provide further details on the ratings of the management system given in the table above

There is no action plan, targets or specific policy to support the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention. The reported results have been achieved through ongoing operations / everyday activities.

### 5.3.19 - Comments, conclusions and/or recommendations related to the management system/plan

### 6. Financial and Human Resources

### 6.1. Funding

# 6.1.1 - If your funding sources do not exactly fit those shown, put the relevant amounts against the funding type that most closely represents your situation, and use the comment box below to provide more details.

		Project costs	Running costs
6.1.1.1	Multilateral funding (GEF, World Bank, etc.)	0 %	0 %
6.1.1.2	Bilateral international funding	0 %	0 %
6.1.1.3	World Heritage Fund (International Assistance)	0 %	0 %
6.1.1.4	Contribution from other conventions and programmes	0 %	0 %
6.1.1.5	International donations (NGOs, foundations, etc.)	0 %	0 %
6.1.1.6	Governmental (national/federal)	52 %	0 %
6.1.1.7	Governmental (regional/provincial/state)	20 %	0 %
6.1.1.8	Governmental (local/municipal)	0 %	0 %
6.1.1.9	In-country donations (NGOs, foundations, etc.)	0 %	100 %
6.1.1.10	Individual visitor charges (e.g. entry, toilets, parking, camping fees, etc.)	28 %	0 %
6.1.1.11	Commercial activities (e.g. merchandising and catering, filming permit, concessions, etc.)	0 %	0 %
6.1.1.12	Other	0 %	0 %
		Total 100 %	Total 100 %

### 6.1.2 - Please comment here on any other aspects of funding sources not covered in the table above

The management authorities do not conduct special accounting for the project and running costs. In practice, state funding and incomes from individual visitor charges support the running costs, whereas donations are project restricted.

### 6.1.3 - Is the current budget sufficient to manage the World Heritage property effectively?

The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage

### 6.1.4 - Are the existing sources of funding secure and likely to remain so?

The existing sources of funding are secure over the medium-term and planning is underway to secure funding over the long-term

### 6.1.5 - Comments, conclusion, and/or recommendations related to finance and infrastructure

There is a gap in funding between federal and regional protected areas. The budget of federal PAs is acceptable, though could be further improved to fully meet the management needs. In contrast, funding of regional parks is inadequate for basic management needs and presents a serious constraint to the capacity to manage.

6.1.6 - Estimate the distribution of men and women involved in the management, conservation, interpretation of the World Heritage properties and the extent to which they are drawn from local communities.

- -

		From local communities %	From elsewhere %
6.1.6.1	Men	60 %	40 %
6.1.6.2	Women	40 %	60 %
		Total 100 %	Total 100 %

### 6.1.7 - Are available human resources adequate to manage the World Heritage property?

Human resources partly meet the management needs of the World Heritage property

# 6.1.8 - Considering the management needs of the World Heritage property, please rate the availability of professionals in the following disciplines

Conservation	Fair
Environmental sustainability	Poor
Community participation and inclusion	Fair
Risk preparedness	Poor
Capacity development and education	Fair
Administration	Fair
Research and monitoring	Fair
Awareness raising and public information/communication	Fair
Marketing and promotion	Fair
Interpretation	Fair
Visitor management/tourism	Fair
Enforcement (custodians, police)	Fair

### 6.1.9 - Please rate the availability of training opportunities for the management of the World Heritage property in the following

disciplines	
Conservation	Fair
Environmental sustainability	Poor
Community participation and inclusion	Fair
Risk preparedness	Poor
Capacity development and education	Fair
Administration	Fair
Research and monitoring	Fair
Awareness raising and public information/communication	Fair
Marketing and promotion	Fair
Interpretation	Fair
Visitor management/tourism	Fair
Enforcement (custodians, police)	Fair

### 6.1.10 - Has any use been made of the World Heritage Strategy for Capacity Building at the property?

No use has been made of the World Heritage Strategy for Capacity Building

### 6.1.11 - If the World Heritage Strategy for Capacity Building has been used, please briefly describe what has been done. Not relevant

# 6.1.12 - Are there site-specific capacity building plans or programmes that develop local expertise and that contribute to the transfer of skills for the conservation and management of the World Heritage property?

A site-based capacity building plan or programme is in place and partially implemented; some technical skills are being transferred to those managing the property locally, but most technical work is carried out by external staff

### 6.1.13 - Comments, conclusions and/or recommendations related to human resources, expertise and training

Federal authorities significantly exceed regional ones in human resources capacities and access to training. There is also a gap between the World Heritage Convention and its implementation on the ground. In fact, local staff has limited knowledge on the WHC and its procedures. The WHC might consider recommending that state parties designate, train and periodically evaluate experts responsible for the WHC procedures (at least one per site / component).

### 7. Scientific Studies and Research Projects

7.1 - Is there adequate knowledge (scientific or traditional) about the values and attributes of the World Heritage property to support planning, management and decision-making to ensure that Outstanding Universal Value is maintained? Knowledge about the values and attributes of the World Heritage property is **acceptable** for most key areas but there are gaps

7.2 - Is there a planned programme of research at the property which is directed towards management needs and/or improving understanding of Outstanding Universal Value?

There is considerable research but it is not directed towards management needs and/or improving understanding of Outstanding Universal Value

### 7.3 - Are results from research programmes publicly available and disseminated?

Research results are shared with local communities and some national agencies

### 7.4 - Comments, conclusions and/or recommendations related to scientific studies and research projects

Federal PAs have strong research and monitoring programmes, corresponding to management needs and/or improving understanding of OUV. They also properly maintain the knowledge base, share and actively promote outcomes. Research in regional PA is sporadic and mostly led by external agencies. The knowledge management is poorly organised and may lead to loss of research and monitoring records.

### 8. Education, Information and Awareness Building

# 8.1 - Please rate the awareness and understanding of the existence and justification for inscription of the World Heritage property amongst the following groups

Local communities	Fair
Local/municipal authorities	Fair
Indigenous peoples	Poor
Landowners	Fair
Women	Fair
Youth/children	Fair
Researchers	Good
Local visitors	Fair
National/international tourists	Good
Tourism industry	Good
Local businesses and industries	Fair
NGOs	Good
Other specific groups	Not applicable
If you selected 'Other specific groups', please describe	

# 8.2 - Does the property have a heritage education programme(s) for children and/or youth, that can contribute to a better understanding of heritage, promote diversity and foster intercultural dialogue?

There is a planned and effective education and awareness programme for children and youth that contributes to the protection of the World Heritage property

### 8.3 - Who are the target audiences for education and awareness programmes at your property?

communities	
sal/municipal authorities	
igenous peoples	
men	
uth/children	
cal Visitors	
ional/international tourists	
urism industry	

8.4 - Please rate the adequacy of the following visitor facilities and services at the World Heritage property for education, information, interpretation and awareness building

Visitor centre	Fair
Site museum	Fair
Information booths	Fair

Guided tours	Fair
Trails/routes	Fair
Printed information materials	Fair
Online (website, social media, etc.)	Fair
Transportation facilities	Poor
Other	Not needed
If 'Other' is selected, please specify	

### 8.5 - Comments, conclusions and/or recommendations related to education, information and awareness building

As with other elements, federal PAs have stronger education programmes and facilities, whereas regional parks are constrained by a lack of capacities with slight improvements showed over the last 3 years. Overall "fair" score is an average from "good" performance of the federal PAs and "poor" to "fair" results in regional parks.

### 9. Visitor Management

### 9.1 - Please provide estimated annual visitor numbers (including national and international visitors) since the last Periodic Report

71500 / 39700 / 34000 / 38400 / 35400 /

### 9.2 - What information sources are used to collect visitor statistics?

Entry tickets and registries

Tourism industry

### 9.3 - What is the average length stay of a visitor to the World Heritage property?

One to three hours

### 9.4 - Please provide the source of information

The main data source is site managers' statistics. Data on regional parks might not reflect all visitors (some locations do not require entry tickets / permits and, thus, respective visitors are not registered with the site manager books).

### 9.5 - What is the approximate average daily visitor expenditure? (Please provide an estimated monetary figure in USD)

115 / 50 / 325 / 2 / 40 / 35 /

### 9.6 - Please provide the source of information

The main data source is site managers' analytics. Exchange rate as of 30 July 2023. Lodging: 160USD in federal PAs, 70USD in regional PAs Transportation: 500UDS helicopter tours (mostly federal PAs); 150USD by car (mostly regional PAs) Admission fees: 3.5USD in federal PAs, 1.75USD in regional PAs Recreation fees: 75USD in federal PAs, 5.5USD in regional PAs

# 9.7 - Does the management system/plan for the World Heritage property include a strategy with an action plan to manage visitors, tourism activity and its derived economic, socio-cultural and environmental impacts?

There is a strategy to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are some deficiencies in implementation

### 9.8 - Please provide any comments relating to the answer provided above in question 9.7

Federal PAs conduct systematic work on visitation management. These include environmental assessment and impact monitoring, the development of visitation facilities (visitor centres, trails, etc.), interpretation and education on the Property's values. Lacking capacities, regional PAs currently provide only basic visitation infrastructure. Positive changes (incl. an increase in state funding) have been observed in the last 2-3 years and are expected to continue.

### 9.9 - Is visitor use effectively managed to maintain the Outstanding Universal Value of the property?

Visitor use of the World Heritage property is managed but improvements could be made

### 9.10 - Is the effectiveness of tourism management regularly monitored?

Yes, using a different system

### If a different system, please specify

A set of monitoring parameters, including environmental and economic indicators (in regional PAs - basic statistics on visitation and observation of the sites state).

# 9.11 - How does the tourism industry cooperate with the site management to improve visitor experiences and maintain the Outstanding Universal Value of the World Heritage property?

There is limited cooperation between those responsible for the World Heritage property and the tourism industry to present the Outstanding Universal Value and increase appreciation

### 9.12 - How well is the information on the Outstanding Universal Value of the property presented and interpreted?

The presentation and interpretation of the Outstanding Universal Value of the property is acceptable but improvements could be made

### 9.13 - At how many locations is the World Heritage emblem displayed at the property?

In many locations and easily visible to visitors

9.14 - How does visitor/tourism revenue (e.g. entry charges, permits) contribute to the management of the World Heritage property?

Fees are collected and make a substantial contribution to the management of the World Heritage property

### 9.15 - Are there locally driven sustainable tourism initiatives? Yes

### If 'Yes', please specify

A fair portion of local businesses promote environmentally responsible tourism, including the principle of "leave-no-trace".

### 9.16 - Are the benefits of tourism shared with local communities?

Yes

### If 'Yes', please specify

Local communities and businesses are involved in tourism activities, receiving direct financial benefits.

### 9.17 - Comments, conclusions and/or recommendations related to visitation/tourism/public use of the World Heritage property

### 10. Monitoring

# 10.1 - Is there a monitoring programme at the property directed towards management needs and/or towards improving the understanding of the Outstanding Universal Value?

There is considerable monitoring but it is not directed towards management needs and/or improving the understanding of Outstanding Universal Value

# 10.2 - Is necessary information available in order to define key indicators for measuring the state of conservation and are they used in monitoring how the Outstanding Universal Value of the property is being maintained?

Information on the values of the World Heritage property is **adequate and key indicators have been defined** for measuring the state of conservation and **are being used in monitoring** of how the Outstanding Universal value of the property is being maintained

### 10.3 - Are key indicators defined and in place for the following principal aspects of the property?

	Extend of indicators	Not applicable	No indicators	Indicators have been defined but are not yet in use	Indicators are in place and in use since the last Periodic Reporting cycle
10.3.1	State of conservation				×
10.3.2	Effectiveness of the management system		×		
10.3.3	Character of governance		×		
10.3.4	Appropriate synergy with other conservation designations		×		
10.3.5	Contribution to sustainable development		×		
10.3.6	Capacity development		×		

### 10.4 - Please provide information on relevant key indicators adopted at the property

The monitoring systems in both federal and regional PAs are designed to provide inputs for national reporting, which has limited connection to the WHC. The following data is available to measure the state of conservation of the Property – biodiversity and ecosystem indicators, natural disasters statistics, visitation data, financial and operations figures.

### 10.5 - Please rate the level of involvement in monitoring of the following groups:

World Heritage managers/coordinators and staff	Good
Local/municipal authorities	Poor
Local communities	Poor
Indigenous peoples	Poor
Landowners	Fair
Women	Good
Researchers	Good
Tourism industry	Poor
Local businesses and industry	Poor
NGOs	Good
Other specific groups	Not applicable
If you selected 'Other specific groups', please specify	

### 10.6 - Has the State Party implemented relevant recommendations arising from the World Heritage Committee?

Implementation is underway

### 10.7 - Please provide comments relevant to the implementation of recommendations from the World Heritage Committee.

Following the Mission Report of 2019 and the Decision of COP44, the State Parties has been working on the implementation of recommendations from the WHC. The work is coordinated by the Action Plan developed in cooperation between federal and regional authorities. The Action Plan covers 3 key topics – 1. Measures to improve the management system of the property. 2. Measures to verify the boundaries and areas of the Property components. 3. Measures to prevent and minimize threats to OUV.

### 10.8 - Comments, conclusions and/or recommendations related to Monitoring

Overall, the Property has a comprehensive monitoring system that provides data relevant to management needs. Although the monitoring programme is tailored to national reporting, it also allows to compile information and measure the state of conservation of the Property under the WHC.

### 11. Identification of Priority Management Needs

### 11.1 - Identification of Priority Management Needs

5.1	Boundaries and Buffer Zones	
5.1.3	The property has no buffer zone, but there is a need for one	×
5.1.4	The property has no known and recognised buffer zone	
5.2	Protective Measures	
5.2.3	An adequate legal framework for maintaining of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property exists but there are some deficiencies in implementation	
5.2.4	The property has no buffer zone	
5.2.5	An adequate legal framework exists for the broader setting of the World Heritage property and the buffer zone, but there are some deficiencies in implementation which undermine the maintenance of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the property	×
5.2.6	There are major deficiencies in capacity/resources to enforce legislation and/or regulation in the World Heritage property	
5.3	Management System/Management Plan	
5.3.7	No use has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	×
5.3.9	No use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property	
5.3.11	There is coordination between the range of administrative bodies involved in the management of the property, but it could be improved	×
5.3.12	The management system/plan is only partially adequate to maintain the property's Outstanding Universal Value	×
5.3.13	The management system at the property is only being partially implemented	
6.1	Funding	
6.1.3	The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage the World Heritage property	×
6.1.7	Human resources partly meet the management needs of the World Heritage property	×
6.1.10	No use has been made of the World Heritage Strategy for Capacity Development at the World Heritage property	
6.1.12	A site-based capacity building plan or programme is in place and partially implemented; some technical skills are being transferred to those managing the property locally, but most technical work is carried out by external staff	
7	Scientific Studies and Research Projects	
7.2	There is considerable research in the World Heritage property but it is not directed towards management needs and/or improving understanding of Outstanding Universal Value	×
9	Visitor Management	
9.7	There is a strategy to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are some deficiencies in implementation	×
9.9	Visitor use of the World Heritage property is managed but improvements could be made	×
9.11	There is limited cooperation between those responsible for the World Heritage property and the tourism industry to present the Outstanding Universal Value and increase appreciation	
9.12	The presentation and interpretation of the Outstanding Universal Value of the property is acceptable but improvements could be made	
10	Monitoring	
10.1	There is <b>considerable monitoring</b> at the World Heritage property but it is not directed towards management needs and/or improving understanding of Outstanding Universal Value	

Please save this question to reflect changes

### 12. Summary and Conclusions

### 12.1. Summary - Factors affecting the Property

### 12.1.1 - Summary - Factors affecting the Property

4.2	Transportatio	on Infrastructure								
4.2.5	Effects arising from use of transportation infrastructure	Criterion (vii): landscapes of exceptional natural beauty - visual and aesthetic significance Criterion (ix): a wide range of near pristine terrestrial ecosystems (subarctic and boreal) – naturalness and intactness of ecological processes and systems	1: Limit infrastructure development to restric areas 2: Implement tra control measures		Monitor impac ecosystem (s erosion, spills	oil	Ongoing	а	A managers; uthorities responsible or road exploitation	None
4.5	Biological re	source use/modification								
4.5.1	Fishing/collecting aquatic resources	Criterion (x): the most important and significant natural habitats for in situ conservation of biological diversity – the greatest diversity of salmonid fish; viability of populations	1: Continue anti-poachi activities: patrolling terri fish and fish products tr control, etc. 2: Promote sustainable exploitation science-informed decisi quotas; sustainable valu chains, etc.	itories; affic : ions on	Monitor salr		Ongoing	res con Kar	managers; authorities ponsible for fisheries trol / regulation; mchatka regional ninistration	None
4.7	Local condition	ions affecting physical fab	ric							
4.7.3	Temperature	Criterion (vii): landscapes of exceptional natural beauty - visual and aesthetic significance Criterion (ix): a wide range of near pristine terrestrial ecosystems – naturalness and intactness of ecological processes and systems	1: Develop and implement climate change monitoring and adaptation strategy (programme) 2: Improve wildfire prevention and mitigation	moni Wildf	imate change toring 2: iire monitoring alert system	and pilot impleme	2025 - development ing; 2025-2030 - ful Intation, including on measures 2:		1: PAs managers, their supervising agencies and research institutions 2: PAs managers; forest managing authorities	None
4.7.6	Water (rain/water table)	landscapes ofiiexceptional naturaliibeauty - visual andiiaesthetic significance(iiCriterion (ix): a wideii	: Develop and mplement climate shange monitoring and adaptation strategy programme) 2: ncrease disaster risks control and mitigation	monitor	disaster ing and	and piloting	25 - development ; 2025-2030 - full tion, including measures 2:	sup res Kai adr dis	PAs managers, their pervising agencies and search institutions 2: mchatka regional ministration; federal aster control and igation agency	None
4.8	Social/Cultur	al uses of heritage								
4.8.2	Society's valuing of heritage	Criterion (ix): a wide range of near pristine terrestrial ecosystems – naturalness and intactness of ecological processes and systems Criterion (x): the most important and significant natural habitats for in situ conservation	community engagem and nature education targeting a wide rang stakeholders	,	Surveys on so knowledge, ur and valuing of Heritage. Eval effectiveness of and education	iderstanding the World uation of of engagemer			PAs managers	None

4.8.5	Identity, social cohesion, changes in local population and community	Criterion (vii): landscapes of exceptional natural beauty - visual and aesthetic significance Criterion (ix): a wide range of near pristine ecosystems Criterion (x): the most important / significant natural habitats for in situ consevation	engag comn asses benef involv Herita work engag educa	omote wider gement with local nunities, including iss to and sharing fits from the activitie ring the World age Site 2: Continue on community gement and nature ation, targeting a wid e of stakeholders	s	Community engage inclusion and divers indicators		Ongoing		PAs managers	None
4.8.6	Impacts of tourism/Visitation/R	Criterion (vii): ecreation landscapes of exceptional na beauty - visual aesthetic signi Criterion (ix): a range of near ecosystems C (x): the most important / sign natural habitat situ consevatio	and iicance wide oristine iiterion hificant s for in	1: Develop and implement a start programme / plan tourism (incl. impa assessment, crea of visitation faciliti visition control, monitoring) 2: Prc sustainable touris practicies	act ation ies,	1. Toursim and visitation indicat (number, compo financial contribit to PA, etc). 2. In on ecosystems (landscape degradation, biodiversity indic etc).	osition, ution npact	Ongoing	the aut	PAs managers and eir supervising thorities 2: Kamchatka jional administration	None
4.10	Climate chan	ge and severe weather ev	ents								
4.10.6	Temperature change	Criterion (vii): landscapes of exceptional natural beauty - visual and aesthetic significance Criterion (ix): a wide range of near pristine terrestrial ecosystems – naturalness and intactness of ecological processes and systems	climat monito adapta	op and implement e change oring and ation strategy amme)	mor Nati mor	Climate change nitoring 2: ure disaster nitoring and diction	and pilo	025 - development ting; 2025-2030 - fu entation, including ion measures	Ш	PAs managers, their supervising agencies and research institutions	None
4.11	Sudden ecolo	gical or geological event	5								
4.11.1	Volcanic eruption	Volcanic activity contributes to / is an attribute of the overall OUV of the Property. affects all the criteria, but should not be considered as a threa	acti safe t tou acti Pro	serve volcanic vity Implement ety protocols for rism and other vities at the perty	im	olcanic activity and i pact on ecosystems ifety indicators		ngoing	PA: con	search institutions; s managers; disaster ntrol and mitigation ency	None
4.13	Management	and institutional factors									
4.13.5	Financial resources	Criterion (vii): landscapes of exceptional natural beauty - visual and aesthetic significance Criterion (ix): a wide range of near pristine ecosystems Criterion (x): the most important / significant natural habitats for in situ consevation	fundir herita activit exterr develo nature	rease state og for PAs and ge protection ies 2: Expand hal fundraising / op alternative 9 finance ments	(prov	tor financial indicatc ided/raised funds, tiveness of spendin		Ongoing	mir reg	Federal environmental nistry; Kamchatka gional administration 2: us managers	None

Summary - Factors affecting the Property completed

### 12.2. Summary - Management Needs

### 12.2.1 - Summary - Management Needs

5.1	Boundaries and Buffer Zones						
		Actions	Timeframe	Lead agency (and others involved)	More info / comment		
5.1.3	The property has no buffer zone, but there is a need for one	Design and set up buffer zone(s).	2021-2025	Management authorities of the federal and regional PAs.	Work in progress.		

5.2	Protective Measure	es			
5.2.5	An adequate legal framework exists for the broader setting of the World Heritage property and the buffer zone, but there are some deficiencies in implementation which undermine the maintenance of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the property	Improve regulation of tourism activities inside and in the vicinity of the Property (i.e. promote and enforce sustainable tourism). Potential measures include environmental assessments and monitoring, visitation limits, sustainable finance schemes.	2023-2026	The federal Ministry of Natural Resourses and Environment; regional authorities; site managers.	Work in progress.
5.3	Management S	ystem/Management Plan			
5.3.7	No use has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	Develop Site Policy on the Impacts of Climate Change.	2024-2026	Management authorities of the federal and regional PAs.	Work in progress.
5.3.11	There is coordination between the range of administrative bodies involved in the management of the property, but it could be improved		2023-2024	Management authorities of the federal and regional PAs.	Work in progress.
5.3.12	The management system/plan is only partially adequate to maintain the property's Outstanding Universal Value	Revise and update management plan(s) / incorporate adequate measures o maintain the property's Outstanding Universal Value.	2024-2026	Management authorities of the federal and regional PAs.	Work in progress.
6.1	Funding				
6.1.3	The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage the World Heritage property	Substantially increase provision of financial resources.	2024-2030	Federal and regional governments (state funding); management authorities of the federal and regional PAs (external fundraising and nature finances schemes).	Work in progress.
6.1.7	Human resources partly meet the management needs of the World Heritage property	Substantially increase human resources capacities.	2024-2030	Federal and regional governments; management authorities of the federal and regional PAs.	Work in progress.

7	Scientific Studies	and Research Projects			
7.2	There is considerable research in the World Heritage property but it is not directed towards management needs and/or improving understanding of Outstanding Universal Value	Promote integration between national reporting and monitoring for the WHC	2024-2026	Federal and regional governments; management authorities of the federal and regional PAs.	Work in progress.
9	Visitor Manageme	nt			
9.7	There is a strategy to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are some deficiencies in implementation	Improve regulation of tourism activit inside and in the vicinity of the Prop (i.e. promote and enforce sustainab tourism). Potential measures include environmental assessments and monitoring, visitation limits, sustaina finance schemes.	erty le e	The federal Ministry of Natural Resourses and Environment; regional authorities; site managers.	Work in progress.
9.9	Visitor use of the World Heritage property is managed but <b>improvements</b> <b>could be made</b>	Improve visitation facilities (visit centres, trails, navigation), integratir interpretation and education on the Property's OUV.	2023-2030 ng	Site managers	Work in progress.
Summary -	Management Nee	eds completed			

### 12.3. Conclusions on the State of Conservation of the Property

12.3.1 - Following the analysis undertaken for this report, what is the current state of Authenticity of the World Heritage property? Not applicable (sites inscribed exclusively under criteria vii to x (natural World Heritage properties)

# **12.3.2** - Following the analysis undertaken for this report, what is the current state of Integrity of the World Heritage property? The Integrity of the World Heritage property is intact

# 12.3.3 - Following the analysis undertaken for this report, what is the current state of the World Heritage property's Outstanding Universal Value?

The World Heritage property's Outstanding Universal Value has been impacted by factors described in this report, but this situation is being addressed through effective management actions.

### 12.3.4 - What is the current state of the property's other values?

Other important cultural and/or natural values and the state of conservation of the World Heritage property are intact

### 12.3.5 - Comments. conclusions and/or recommendations related to the state of conservation of the property.

Overall, the OUV and its attributes are well-preserved. Landscapes of exceptional natural beauty have retained their visual and aesthetic significance. Natural habitats are preserved at scale, supporting the diversity and viability of key species populations (with few exceptions in a mammal group). In some parts of the Property, ecosystems are affected by projects of significant socio-economic importance. The impact is limited, and the State Party implements conservation measures.

### 13. Impact of World Heritage Status

### 13.1 - Please rate the impacts of World Heritage status of the property in relation to the following areas

Conservation	Very positive
Research and monitoring	Positive
Management effectiveness	Positive
Quality of life for local communities and indigenous peoples	Positive
Recognition	Very positive
Education	Very positive
Infrastructure development	Positive

Funding for the property	Positive
International cooperation	Positive
Political support for conservation	Positive
Legal/Policy framework	Positive
Advocacy	Positive
Institutional coordination	Positive
Security	Positive
Gender equality	Positive
Provision of ecosystem services/ benefits to local communities	Positive
Social inclusion and equity, and improvement of opportunities for all, irrespective of age, sex, disability, ethnicity, origin, religion, or economic or other status	No impact
Fostering inclusive local economic development and enhancing livelihood	Positive
Contributing to conflict prevention, including respect for cultural diversity within and around heritage properties	Positive
Other	Very positive
If 'Other', please specify	

### 13.2 - Comments, conclusions and/or recommendations related to World Heritage status and its impacts

### 14. Good Practice in the Implementation of the World Heritage Convention

### 14.1 - Example of good practice in World Heritage protection, identification, conservation or management at the property level

### 14.2 - Define which topics are covered by this example of best practice at the property level

### 15. Assessment of the Periodic Reporting Exercise

15.1. Relevance of Periodic Reporting

### 15.1.1 - Has the Periodic Reporting process improved the understanding of the following?

The World Heritage Convention
The concept of Outstanding Universal Value
The property's Outstanding Universal Value
The concept of Integrity and/or Authenticity
The property's Integrity and/or Authenticity
Management effectiveness to maintain the Outstanding Universal Value
Monitoring and reporting

# 15.1.2 - Please rate the follow-up to conclusions and recommendations from previous Periodic Reporting exercise by the following entities

State Party	Fair
Site Managers	Fair
UNESCO World Heritage Centre	Fair
Advisory Bodies (ICOMOS, IUCN, ICCROM)	Fair

### 15.2. Use of Data

### 15.2.1 - How do the authorities in charge of the property plan to use the data recorded from this cycle of Periodic Reporting?

Revision of priorities/strategies/policies for the protection, management and conservation of heritage

Update of management plans

### 15.2.2 - Comments on use of data from the Cycle of Periodic Reporting

Data on the regional parks might include inaccuracies due to lack of capacity for effective documentation and knowledge management. The data gathering did not involve stakehorder consultations; the form was mainly filled by the Site Manager.

### 15.3. Timing and resources

### 15.3.1 - Entities involved in the filling out of this online questionnaire (tick as many boxes as applicable)

Site Manager/Coordinator World Heritage property staff

Staff from other World Heritage properties

**15.3.2** - Has a gender balanced contribution and participation been considered in the filling out of this questionnaire? Gender balance has been given limited consideration and implementation is in process.

15.3.3 - Were you given adequate time (i.e. roughly ten months) to gather necessary information and to fill in this questionnaire? No

### 15.3.4 - Please estimate the time (working hours) needed to complete this questionnaire

240 / 40 / 40 /

### 15.3.5 - Did you mobilise any additional resources to fill out this questionnaire?

	Additional resources	No	Yes
15.3.5.1	Human resources		×
15.3.5.2	Financial resources for organizing consultation meetings/ training	×	

### 15.4. Format and content of the Periodic Report

### 15.4.1 - How accessible was the information required to complete this questionnaire?

Not all required information was accessible.

### 15.4.2 - Was the questionnaire easy to use and clear to understand?

		Very Difficult	Difficult	Easy	Very easy
15.4.2.1	Ease of use of questionnaire			×	
15.4.2.2	Clarity of questions			×	

### 15.4.3 - Please provide suggestions for improvement of the Periodic Reporting questionnaire

1. For a complex (multi-component) properties, it would be great to provide all site managers with opportunities to directly contribute to the form (or at least involve them in communications / info exchange on upcoming requests and training opportunities). 2. If possible, synchronise the questionnaire with national reporting standards.

### 15.5. Training and Guidance

### 15.5.1 - Please rate the level of support in terms of training and guidance from the following entities in completing this questionnaire

UNESCO World Heritage Centre	Fair
UNESCO (other sectors/field offices)	Not applicable
UNESCO National Commission	No support
ICOMOS International	Not applicable
IUCN International	Fair
ICCROM international/regional	Not applicable
ICOMOS national/regional	Not applicable
IUCN national/regional	No support

### 15.5.2 - Please rate the level of support for completing the Periodic Reporting questionnaire from the following entities

UNESCO World Heritage Centre	Not applicable
State Party Representative (national Focal Point)	No support
UNESCO other sectors (e.g. field office)	Not applicable
National Commission for UNESCO	No support
ICOMOS International	Not applicable
ICCROM International/regional	Not applicable
ICOMOS national/regional	Not applicable
IUCN national/regional	Not applicable
IUCN International	Not applicable

# 15.5.3 - Were the online training resources prepared by the World Heritage Centre regarding Periodic Reporting adequate for you to complete this questionnaire?

Yes

**15.5.4** - If you found that the online training resources were not adequate, what changes would you like to see implemented? They are well-designed and adequate, though hardly accessible by the majority of staff due to the language barrier.

15.6. Actions that will require formal consideration by the World Heritage Committee

### 15.6.1 - Summary of actions that will require formal consideration by the World Heritage Committee

### • Geographic information table

Reason for update: Following the Monitoring Mission of 2019, the State Party initiated work on improving the management of the Property. The State considers transforming at least two of the regional parks into a one federal national park with a stricter protection regime. This restructuring would reduce a number of components and require a technical revision of maps and the description of boundaries. The State Party will properly inform and consult with the WHC after completing assessments and analysis.

### • Map(s)

Reason for update: In addition to the comment on Q1.3, the State Party plans to duly consult with the WHC on few minor modifications to the boundaries of the Property. These minor modifications concern the regional parks and mainly reflect the technical revision of their boundaries as a result of the development of cadastral records.

Changes to these items will need to go through the proper processes.

15.7. Comments, conclusions and/or recommendations related to the Assessment of the Periodic Reporting Exercise

15.7.1 - Comments, conclusions and/or recommendations related to the Assessment of the Periodic Reporting Exercise

15.7.2 - Thank you for having filled in all the questions. Please contact your National Focal Point for validation.