# Mountain Railways of India

1. World Heritage Property Data

#### 1.1 - Name of World Heritage property

Mountain Railways of India

#### 1.2 - World Heritage property details

#### 1.3 - Geographic information table

Name	Coordinates	Property (ha)	Buffer zone (ha)	Total (ha)	Inscription year
Darjeeling Himalayan Railway	26.68 / 88.46	5.34	70	75.34	1999
Nilgiri Mountain Railway	11.51 / 76.932	4.59	500	504.59	2005
Kalka Shimla Railway	30.852 / 76.938	79.06	74.88	153.94	2008
Total (ha)		88.99	644.88	733.87	

#### 1.4 - Map(s)

Title	Date	Link to source
Darjeeling Himalayan Railway Index Plan	1998	
Map showing the route of Nilgiri Mountain Railway	2004	
Mountain Railways of India, Sketch Map of Kalka Shimla Railway	2008	

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

1. Darjeeling Himalayan Railway (DHR) (National Rail Museum)

#### Comment

www.dhr.in.net https://artsandculture.google.com/partner/nilgiri-mountain-railways www.kalkashimlarailway.in

- 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) is not 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

Mountain Railways of India is Not designated in the above.

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?

No

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- 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?
- 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 <b>regularly</b> 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.	
2.7.2	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 <b>occasionally</b> communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager <b>regularly</b> communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.3	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 <b>regularly</b> 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.	
2.7.4	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 <b>regularly</b> 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.	
2.7.5	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 <b>regularly</b> 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.	

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

There is no contact with FP on above.

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?

- 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
- 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.

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

#### Statement of Outstanding Universal Value

#### **Brief synthesis**

The Mountain Railway of India consists of three railways: the Darjeeling Himalayan Railway located in the foothills of the Himalayas in West Bengal (Northeast India) having an area of 5.34 ha., the Nilgiri Mountain Railways located in the Nilgiri Hills of Tamil Nadu (South India) having an area of 4.59 ha. and the Kalka Shimla Railway located in the Himalayan foothills of Himachal Pradesh (Northwest India) having an area of 79.06 ha. All three railways are still fully functional and operational.

The Mountain Railways of India are outstanding examples of hill railways. Opened between 1881 and 1908 they applied bold and ingenious engineering solutions to the problem of establishing an effective rail link across a mountainous terrain of great beauty. They are still fully operational as living examples of the engineering enterprise of the late 19th and early 20th centuries.

The Darjeeling Himalayan Railway consists of 88.48 kilometers of 2 feet (0.610 meter) gauge track that connects New Jalpaiguri with Darjeeling, passing through Ghoom at an altitude of 2258 meters. The innovative design includes six zigzag reverses and three loops with a ruling gradient of 1:31.

The construction of the Nilgiri Mountain Railway, a 45.88 kilometer long meter-gauge single-track railway was first proposed in 1854, but due to the difficulty of the mountainous location the work only started in 1891 and was completed in 1908. This railway, scaling an elevation of 326 meters to 2,203 meters, representsed the latest technology of the time and uses unique rack and pinion traction arrangement to negotiate steep gradient.

The Kalka Shimla Railway, a 96.6 kilometer long, single track working rail link built in the mid-19th century to provide a service to the highland town of Shimla is emblematic of the technical and material efforts to disenclave mountain populations through the railway. The world's highest multi-arc gallery bridge and the world's longest tunnel (at the time of construction) of the KSR were the a testimony toof the brilliantce engineering skills applied to make thisa dream a reality.

These railways are outstanding examples of innovative transportation systems built through difficult terrain, which had great influence on the social and economic development of their respective regions.

Criterion (ii): The Mountain Railways of India are outstanding examples of the interchange of values on developments in technology, and the impact of an innovative transportation system on the social and economic development of a multicultural region, which was to serve as a model for similar developments in many parts of the world. The Mountain Railways of India exhibit an important cultural and technologically transfer in the colonial setting of the period of its construction, particularly with regard to the eminently political function of the terminus station, Shimla.. The railway then enabled significant and enduring human settlement, of which it has remained the main vector up to the present day.

Criterion (iv): The development of railways in the 19th century had a profound influence on social and economic developments in many parts of the world. The Mountain Railways of India are outstanding examples of a technological ensemble, representing different phases of the development in high mountain areas. The Mountain Railways of India are outstanding examples of how access has been provided to the plains and plateaus of the Indian mountains. They are emblematic of the technical and material efforts of human societies of this period to disenclave mountain populations through the railway. They are well-maintained and fully operational living lines. They are used in a spirit and for purposes that are the same as those at its their inception.

#### Integrity

The entire length of all three railways including the stations is included within the property boundaries. The boundaries of the property are adequate. The structural integrity has been maintained and the general infrastructure of the lines is today very close to the characteristics of the lines as they originally were. The functional integrity has been preserved though the lines have been systematically repaired and maintained. The integrity of use has been maintained and from the outset the lines have been used for large-scale and permanent transport, with all the characteristics associated with railway disenclavement of mountain areas. Traffic has been regular and continuous up to the present day, and it provides the whole range of initial services, particularly for passengers and tourists. The property is in a generally good condition with regard to infrastructure, technical operation and social use that enables it to adequately express its values. The main threats to the properties are the climatic and geological risks, which however have always formed part of the everyday operation of the three railways. All three areas might be considered areas for potential earthquakes. There is however also the risks of unauthorized encroachment close to the Kalka Shimla Railway, particularly in the buffer

#### Authenticity

The tracks have been re-laid and retaining walls rebuilt at various points during the highly eventful history of the railways' operation, regularly disturbed by monsoon rain, landslides and rock-falls. Various station buildings on the three railways have undergone reconstruction during the course of the century, especially those destroyed by earthquake or fire. These buildings are being restored and maintained in their latest form. Further railway related structures have been restored and maintained in their original form. Though new rolling stock and engines have been introduced, the remaining original ones have also been maintained. This includes the famous B-class steam engines of the Darjeeling Himalayan Railway. Original 4-wheeled carriages and bogie-type carriages are still in use. The vulnerabilities are clearly linked to the fact that these properties are functioning railways which require constant repair and the changing of parts. However care has been given to ensure that these parts retain the design and quality of the original.

#### Protection and management requirements

The owner of the three properties is the Railway Ministry of the Indian Government. All the laws of the Indian Union relating to railways apply to the property, in particular: the Railway Act (1989), for technical protection measures and the Public Premises Act (1971) which in particular provides the right to expel unauthorized occupants. The legal protection in place is appropriate and the Ministry of Railways is making efforts to apply the legal provisions against unauthorized occupation of land within the boundaries properties as well as the buffer zone.

The management is guaranteed by the Ministry of Railways and the relevant branch offices. There is a Property Management Plan, which deals with the management of the land, the buildings, the track, the bridges, and the tunnels for two of the three lines (i.e. Nilgiri and Kalka Shimla) however recommendations have been made to strengthen these in relation to architectural features and encroachments on the property boundaries. The resources are provided by the Indian Ministry of Railways. Train services, station facilities, platforms and passenger amenities are provided for visitors and commuters. In addition, special tourist trains are promoted. The professional personnel of the three railways, and the technical assistance departments of Indian Railways, are fully operational, and are well prepared for climatic and geological risks. Over a century of operation, they have always managed to restore the integrity of the line. They generally intervene within a short lead time, which contributes to the monitoring of the state of conservation of the property. The three railways have the technical documents necessary for the maintenance of track, infrastructure, rolling stock and stations. Indian Railways has a central research department that considers climatic and geological effects with an impact on mountain lines (RDSO). It recommends protective action, particularly to prevent landslides.

The three mountain railways have been in service continuously from theirits inception. They are in a good state of general conservation, and are maintained on a

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regular and permanent basis.. The traditional arrangements for track maintenance by railway personnel are considered satisfactory to ensure the present and future conservation of the line.. Both the Nilgiri and Kalka Shimla Railway Lines have Management Plans which outline the processes and practices that ensure the ongoing conservation of the lines and their conservation values. However the first of the lines to be listed i.e the Darjeeling Railway still does not have an endorsed Conservation Management Plan. In addition, the architectural management of the Kalka Shimla Railway station buildings and their annexes, to ensure respect for the property's Ooutstanding Uuniversal Vvalue, has not been sufficiently taken into account, and a medium-term project should be drawn up for this purpose. The management authorities should step up control of encroachment on land in the nominated property zone and in the buffer zone.

In regard to the Nilgiri and Kalka Shimla Railways the management plans should be substantially improved in terms of architectural conservation and condition monitoring, and by involving the territorial authorities, particularly in relation to visitor management to ensure that the Outstanding Universal Values are protected.

# 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	Bold and ingenious engineering solutions	×			
3.2.2	Zigzag reverses and loops	×			
3.2.3	Innovative transport systems	×			
3.2.4	Innovative design	×			
3.2.5	Continuing Function and operation	×			
3.2.6	Great influence on social and economic development	×			
3.2.7	Enabling significant and enduring human settlement	×			
3.2.8	Providing access to plains and Plateau of Indian Mountains	×			
3.2.9	Emblematic of the technical and material efforts of human societies to dis-enclave mountain populations through the Railway	×			
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

All listed key attributes of Outstanding Universal Value are preserved.

- 4. Factors Affecting the Property
- 4.1. Buildings and Development

### 4.1.1 - Housing

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.1.2 - Commercial development

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.1.3 - Industrial areas

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

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

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant	X Not relevant
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#### 4.1.5 - Interpretative and visitation facilities

Previous answer Cycle 2 (30/07/2011):

• Relevant, Positive, Current, Outside

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

Factors selected as relevant in 4.1 have their positive effect as they are the added attractions for the visitors. There is adequate Interpretative and visitor facilities available at the site for proper awareness generation and to enhance visitor experience.

#### 4.2. Transportation Infrastructure

#### 4.2.1 - Ground transport infrastructure

Previous answer Cycle 2 (30/07/2011):

• Relevant, Positive, Potential, Outside

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

#### 4.2.2 - Underground transport infrastructure

Previous answer Cycle 2 (30/07/2011):

Not relevant

	· ·
Relevant	X Not relevant

#### 4.2.3 - Air transport infrastructure

Previous answer Cycle 2 (30/07/2011):

• Not relevant

Relevant	X Not relevant

### 4.2.4 - Marine transport infrastructure

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant	✗ Not relevant

# 4.2.5 - Effects arising from use of transportation infrastructure

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant	× Not relevant

# 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

Factors selected as relevant in 4.2 are affecting the property in a positive manner as these are the modes of the transportation in these areas whose economy is largely dependent on these means of transport besides facilitating visitors to the property.

#### 4.3. Services Infrastructures

#### 4.3.1 - Water infrastructure

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant Not relevant	
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#### 4.3.2 - Renewable energy facilities

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.3.3 - Non-renewable energy facilities

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.3.4 - Localised utilities

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.3.5 - Major linear utilities

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

# 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

Inscribed property has no noticeable relevance to questions under 4.3

#### 4.4. Pollution

### 4.4.1 - Pollution of marine waters

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.4.2 - Ground water pollution

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.4.3 - Surface water pollution

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.4.4 - Air pollution

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.4.5 - Solid waste

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.4.6 - Input of excess energy

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

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# 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

Inscribed property has no noticeable relevance to questions under 4.4

### 4.5. Biological resource use/modification

# 4.5.1 - Fishing/collecting aquatic resources

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.5.2 - Aquaculture

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.5.3 - Land conversion

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.5.4 - Livestock farming/Grazing of domesticated animals

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.5.5 - Crop production

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.5.6 - Commercial wild plant collection

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.5.7 - Subsistence wild plant collection

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.5.8 - Commercial hunting

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.5.9 - Subsistence hunting

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

# 4.5.10 - Forestry/Wood production

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

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#### 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

Inscribed property has no noticeable relevance to questions under 4.5

#### 4.6. Physical resource extraction

#### 4.6.1 - Mining

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant × Not relevant

#### 4.6.2 - Quarrying

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant × Not relevant

#### 4.6.3 - Oil and gas

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant × Not relevant

#### 4.6.4 - Water (extraction)

Previous answer Cycle 2 (30/07/2011):

Not 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

Inscribed property has no noticeable relevance to questions under 4.6

### 4.7. Local conditions affecting physical fabric

### 4.7.1 - Wind

Relevant

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.7.2 - Relative humidity

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant × Not relevant

#### 4.7.3 - Temperature

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant × Not relevant

### 4.7.4 - Radiation/Light

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant × Not relevant

#### 4.7.5 - Dust

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

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

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant × Not relevant

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### 4.7.7 - Pests

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant	X Not relevant

#### 4.7.8 - Micro-organisms

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant	X 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

Inscribed property has no noticeable relevance to questions under 4.7

### 4.8. Social/Cultural uses of heritage

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

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant	X Not relevant

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

Previous answer Cycle 2 (30/07/2011):

• Relevant, Positive, Potential, Outside

× Relevant				Not relevant			
	Impact		Origin		Trend of impact		
Impact	<b>G</b> Current	Potential	Inside	<b>Outside</b>	<b>▶</b> Decreasing	<b>⇒</b> Stable	Increasing
O Positive X		×		×			<i>P</i>
Negative							

# 4.8.3 - Indigenous hunting, gathering and collecting

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant	X Not relevant

### 4.8.4 - Changes in traditional ways of life and knowledge system

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant	✗ Not relevant

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

Previous answer Cycle 2 (30/07/2011):

Not relevant

|--|

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

Previous answer Cycle 2 (30/07/2011):

• Relevant, Positive, Current, Potential, Outside

× Relevant	Not relevant						
	Impact Origin		Origin		Trend of impact		
Impact	<b>Gurrent</b>	Potential	Inside	© Outside	<b>▶</b> Decreasing	⇒ Stable	Increasing
Positive X	×	×		×			7
Negative							

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# 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 factors selected as relevant in 4.8 are affecting the property positively as the society values the property which has a positive impact on tourism & sustainable livelihood for the people in the property areas.

#### 4.9. Other human activities

#### 4.9.1 - Illegal activities

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.9.2 - Deliberate destruction of heritage

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.9.3 - Military training

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.9.4 - War

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.9.5 - Terrorism

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.9.6 - Civil unrest

Previous answer Cycle 2 (30/07/2011):

Not relevant

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

# 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

Darjeeling Himalayan Railway negatively as during Civil unrest in year 2017, two Railway stations i.e. Gayabari and Sonada were damaged. However, these two stations have been restored to their original state.

# 4.10. Climate change and severe weather events

#### 4.10.1 - Storms

Previous answer Cycle 2 (30/07/2011):

• Relevant, Negative, Potential, Outside

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

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#### 4.10.2 - Flooding

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.10.3 - Drought

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.10.4 - Desertification

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.10.5 - Changes to oceanic waters

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.10.6 - Temperature change

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.10.7 - Other climate change impacts

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

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

Landslides/soil erosion due to heavy rainfall (storms) tend to affect the property. However, restoration of the property to its original State is carried out at immediately, after any such incidence.

# 4.11. Sudden ecological or geological events

### 4.11.1 - Volcanic eruption

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.11.2 - Earthquake

Previous answer Cycle 2 (30/07/2011):

• Relevant, Negative, Potential, Outside

× Relevant	Not relevant						
	Impact		Origin		Trend of impact		
Impact	Current	Potential	• Inside	<b>Outside</b>	<b>▶</b> Decreasing	→ Stable	Increasing
Positive							
		×		×		⇒	

#### 4.11.3 - Tsunami/Tidal wave

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant	X Not relevant

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#### 4.11.4 - Avalanche/Landslide

Previous answer Cycle 2 (30/07/2011):

• Relevant, Negative, Potential, Outside

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

#### 4.11.5 - Erosion and siltation/Deposition

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

### 4.11.6 - Fire (wildfire)

Previous answer Cycle 2 (30/07/2011):

• Relevant, Negative, Potential, Outside

✗ Relevant	i	Not relevant					
	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	<b>Outside</b>	<b>→</b> Decreasing	→ Stable	Increasing
O Positive							
○ Negative X		×		×	<b>S</b>		

# 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

The Darjeeling Himalayan Railway happens to be in seismic zone 3 indicating higher seismic activity. Hence earthquakes and landslides can have potential impact the property negatively. However, in any such incidences, restoration of the property to its original State is carried out at the earliest. Special beat staff is deputed to check wild fire incidents and keep it under control keeping in touch with Civil Administration and Fire Department.

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

#### 4.12.1 - Translocated species

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

#### 4.12.2 - Invasive/Alien terrestrial species

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

# 4.12.3 - Invasive/Alien freshwater species

Previous answer Cycle 2 (30/07/2011):

• Not relevant

Relevant X Not relevant

### 4.12.4 - Invasive/Alien marine species

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

# 4.12.5 - Hyper-abundant species

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X Not relevant

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#### 4.12.6 - Modified genetic material

Previous answer Cycle 2 (30/07/2011):

Not relevant

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

Inscribed property has no noticeable relevance to questions under 4.12

# 4.13. Management and institutional factors

# 4.13.1 - Management system/Management plan

✗ Relevant				Not relevant					
	Impact		Origin		Trend of impact				
Impact	Current	Potential	Inside	<b>©</b> Outside	<b>▶</b> Decreasing	<b>⇒</b> Stable	Increasing		
O Positive 🗶	×	×	×	×			7		
Negative									

# 4.13.2 - Legal framework

× Relevant			1	Not relevant			
Impact		Origin		Trend of impact			
Impact	<b>G</b> Current	Potential	<ul><li>Inside</li></ul>	<b>Outside</b>	<b>▶</b> Decreasing	→ Stable	Increasing
O Positive X	×	×	×	×		$\rightarrow$	
Negative							

#### 4.13.3 - Governance

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

### 4.13.4 - Management activities

Previous answer Cycle 2 (30/07/2011):

Not relevant

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

### 4.13.5 - Financial resources

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

# 4.13.6 - Human resources

X Relevant			Not relevant	
	Impact	Origin		Trend of impact

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Impact	Current	Potential	<ul><li>Inside</li></ul>	Outside	<b>▶</b> Decreasing	→ Stable	Increasing
○ Positive    ★	×		×			$\rightarrow$	
Negative							

# 4.13.7 - Low impact research/monitoring activities

Previous answer Cycle 2 (30/07/2011):

Not relevant

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

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

Previous answer Cycle 2 (30/07/2011):

Not relevant

Relevant X 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

The organization that maintains and operates Mountain Railways is Ministry of Railways, Zonal Railways Division This provides necessary planning, resources, budgetary support and direction.

4.14. Other factor(s)

#### 4.14.1 - Other factor(s)

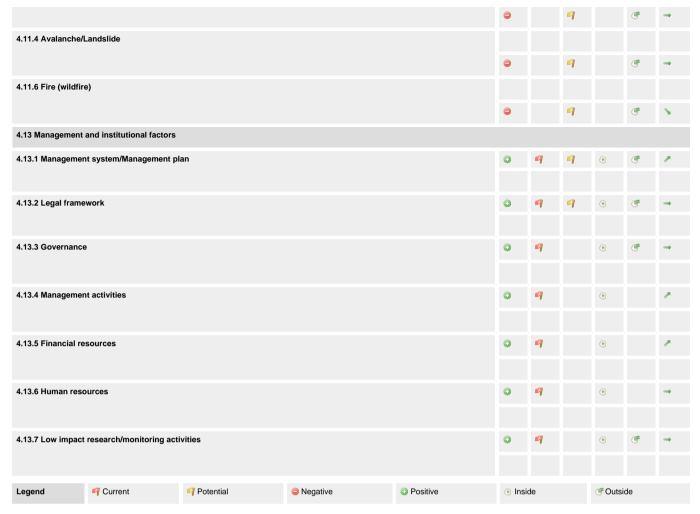
No other factors

### 4.15. Factors Summary Table

### 4.15.1 - Factors Summary Table

Name	Impact		Origin		Trend				
4.1 Buildings and Development									
4.1.5 Interpretative and visitation facilities	<b>O</b>	9		•	Œ	$\rightarrow$			
4.2 Transportation Infrastructure									
4.2.1 Ground transport infrastructure	<b>O</b>		9		Œ	1			
4.8 Social/Cultural uses of heritage									
	<b>(</b>		9		Œ	-			
4.8.6 Impacts of tourism/Visitation/Recreation	<b>©</b>	9	9		Œ	-			
4.9 Other human activities									
4.9.6 Civil unrest									
			9		Œ	•			
4.10 Climate change and severe weather events									
4.10.1 Storms									
			9		Œ	$\rightarrow$			
4.11 Sudden ecological or geological events									
4.11.2 Earthquake									

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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	
4.1.5 Inter	pretative and visitation facilities	<b>O</b>	q		<b>(</b> )	Œ	<b>→</b>
4.1.0 11101	producto una visitation dominico		-,		G	3	·
Snatial sc	ale - Area affected by the factor						
Opatiai 30							
	Restricted						
	Localised						
×	Extensive						
	Widespread						
Temporal	scale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
	Frequent						
×	On-going On-going						
Impact - Ir	npact on the attributes						
	Insignificant						
	Minor						
×	Significant						

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	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

# 4.2 Transportation Infrastructure

Name		Impact			Origin		Trend
4.2.1 Groun	nd transport infrastructure	<b>9</b>		Œ		-	
Spatial sea	le - 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						

# 4.8 Social/Cultural uses of heritage

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4.8.2 Socie	y's valuing of heritage	<b>O</b>		9		Œ	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						
Name		Impact			Origin		Trend
	ets of tourism/Visitation/Recreation	©	q	9	Origin	<b>F</b>	/ rend
Spatial sca	le - Area affected by the factor						
	Restricted						
**	Localised						
×	Extensive						
T	Widespread						
Temporal s	cale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
~	Prequent On coing						
X	On-going						
impact - Im	pact on the attributes						

Name

Origin

Trend

Impact

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	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

Increasing

Name		Impact		Origin		Trend	
4.9.6 Civil	unrest						
				9		<b>G</b>	*
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 - 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						

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# 4.10 Climate change and severe weather events

Name		Impact		Origin		Trend	
4.10.1 Stor	ms						
				9		<b>G</b>	<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 - De	velopement over the last 6 years						
	Decreasing						
×	Static						
	Increasing						

# 4.11 Sudden ecological or geological events

Name		Impact		Origin		Trend			
4.11.2 Eart	hquake								
				9		<b>G</b>	$\rightarrow$		
Custial and	le - Area affected by the factor								
Spatial Sca	ile - Area affected by the factor								
	Restricted								
×	Localised								
	Extensive								
	Widespread								
Temporal	Temporal scale - Occurence of the impact								
	One off or rare								

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×	Intermittent or sporadic					
	Frequent					
	On-going					
Impact - Im	pact 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	leaded and dilde	Impact		Origin		Trend
4.11.4 Avai	anche/Landslide		~3		æ	
			9		G.	<b>→</b>
Spatial sca	de Assa effected by the feeter					
	ale - Area affected by the factor					
	Restricted					
×						
×	Restricted					
×	Restricted  Localised					
	Restricted  Localised  Extensive					
	Restricted  Localised  Extensive  Widespread					
Temporal s	Restricted  Localised  Extensive  Widespread  scale - Occurrence of the impact					
Temporal s	Restricted  Localised  Extensive  Widespread  scale - Occurence of the impact  One off or rare					
Temporal s	Restricted  Localised  Extensive  Widespread  scale - Occurence of the impact  One off or rare  Intermittent or sporadic					
Temporal s	Restricted  Localised  Extensive  Widespread  scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent					
Temporal s	Restricted  Localised  Extensive  Widespread  scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  On-going					
Temporal s	Restricted  Localised  Extensive  Widespread  scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  On-going  spact on the attributes					
Temporal s	Restricted  Localised  Extensive  Widespread  Scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  On-going  spact on the attributes  Insignificant					
Temporal s	Restricted  Localised  Extensive  Widespread  scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  On-going  spact on the attributes  Insignificant  Minor					
Temporal s	Restricted  Localised  Extensive  Widespread  Scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  On-going  Inpact on the attributes  Insignificant  Minor  Significant					
Temporal s	Restricted  Localised  Extensive  Widespread  scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  On-going  spact on the attributes  Insignificant  Minor  Significant  Major					

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Low capacity

Trend - Developement over the last 6 years

No capacity and / or resources

	Decreasing					
×	Static					
	Increasing					
Name		Impact		Origin		Trend
4.11.6 Fire (	wildfire)					
			P		C	•
Spatial scal	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 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					

# 4.13 Management and institutional factors

Name		Impact		Origin		Trend	
4.13.1 Man	agement system/Management plan	•	q	q	•	Œ	1
Spatial sca	lle - Area affected by the factor						
	Restricted						
	Localised						
×	Extensive						
	Widespread						
Temporal s	scale - Occurence of the impact						

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Processing   Pro		One off or rare					
Impact Project in the definition on the definition of the second o							
impact - Impact on the settibutes  ***capacity control settibu							
Impact on the alterbutes  Inacysticon  Miner  Miner  Miner  Management response - Capacity of management to respond  X I figh capacity  Mechan capacity  Mechan capacity  No capacity and or mocurate  Processing  Spatial scales - Area affected by the factor  Restricted  Capacity  Capacit	¥						
Inserption I  Minor  X Synthem Maper Management appacity of management to respond  X High colorists Less capacity of management to respond  X Insert capacity Less capacity of a for recourses  Trand - Development over the last 8 years  Decreasing Statio X Increasing  Name A 1.3.2 Legal framework  Need that affected by the factor  Restricted Restricted Restricted Temporal scales - Concurrence of the impact One of for rere International or spondio International or spond							
Micros  X Significant Major  Management response. Capability of management to respond  X If (a) capability of management to respond  X If (a) capability of management to respond  X If (a) capability of management to respond  Decreasing  Decreasing  Salto  X Increasing  Name  Anagement and second by the factor  Resplicted  X Locations  Resplicted  X Locations  Cross off or core  Helefinities of pagaret  X Or poling  Micro  X Significant  Micro  X Significant  Micro  Micro  Micro  Micro  Micro  Micro  Management response- Capability of management to respond  X Significant  Micro  Micr	impact - in						
Management response - Cligacity of management to respond  X							
Management response - Capacity of management to respond  X	~						
Management response - Capacity of management to respond  X ifigir capacity  Low capacity  No capacity  No capacity  No capacity  Statio  X increasing  Statio  X increasing  X increasin	*						
Medium capacity   Live capac							
Median capacity Low capacity No capacity No capacity State  Decreasing  State  Area affected by the factor  Restrocted  Extensive  Congress  Congr							
Low capacity No capacity and for resources  Trond - Development ever the last 6 years    Decreasing   Static	×						
No capacity and / or resources  Tend - Development over the fast 8 years    Decreating   Static   Stat							
Tend - Development over the last 6 years    Decreasing   Static							
Dozewasing   Static							
Static  X Increasing  Name  A13.2 Legal framework  Bestincted  X Localised  Extensive  Widespread  Temporal scale - Accurrence of the Impact  Cinc off or rare  Intermitted or sporadic  Fraguant  X On-going  Impact - Impact on the attributes  Insignificant  Minor  X Significant  Minor  Min	Trend - De						
Name   Impact   Minor   Minor		Decreasing					
Name  4.13.2 Legal framework  Restricted  Localised  Localised  Localised  Miloor  Frequent  One off or rare Intermittent or sporadic  Frequent  Minor  Minor  Significant  Minor  High capacity  Management response - Capacity of management to respond  High capacity  Medium capacity  Loca capacity  Mo capacity and / or resources		Static					
4.13.2 Legal framework  Spatial scale - Area affected by the factor  Restricted  K Localised  Extensive Widespread  Temporal scale - Occurence of the impact  Intermittent or spotadic  Frequent  More On-poing  Impact - Impact on the attributes  Insignificant Minor  K Significant Major  Management response - Capacity of management to respond  X High capacity Medium capacity Low capacity No capacity and / or resources	×	Increasing					
4.13.2 Legal framework  Spatial scale - Area affected by the factor  Restricted  K Localised  Extensive Widespread  Temporal scale - Occurence of the impact  Intermittent or spotadic  Frequent  More On-poing  Impact - Impact on the attributes  Insignificant Minor  K Significant Major  Management response - Capacity of management to respond  X High capacity Medium capacity Low capacity No capacity and / or resources	Namo		Impact		Origin		Trond
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  X On-poing  Impact - Impact on the attributes  Insignificant  Minor  X Significant  Minor  Maior  Management response - Capacity of management to respond  X High capacity  Medium capacity  Low capacity  No capacity and / or resources		al framework		q		Œ	
Restricted  X Localised  Extensive  Widespread  Temporal scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  X On-going  Impact - Impact on the attributes  Insignificant  Minor  X Significant  Major  Management response - Capacity of management to respond  X High capacity  Medium capacity  Low capacity  No capacity and / or resources	Ū			·			
Restricted  X Localised  Extensive  Widespread  Temporal scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  X On-going  Impact - Impact on the attributes  Insignificant  Minor  X Significant  Major  Management response - Capacity of management to respond  X High capacity  Medium capacity  Low capacity  No capacity and / or resources	Custial and	le. Associated by the feeter					
Extensive Widespread  Temporal scale - Occurrence of the Impact  One off or rare Intermittent or sporadic Frequent  X On-going Impact - Impact on the attributes Insignificant Minor  X Significant Major  Management response - Capacity of management to respond  X High capacity Medium capacity Low capacity No capacity and / or resources	Spatial Sca						
Extensive  Widespread  Temporal scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  X On-going  Impact - Impact on the attributes  Insignificant  Minor  X Significant  Major  Management response - Capacity of management to respond  X High capacity  Medium capacity  Low capacity  No capacity and / or resources	~						
Temporal scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  On-going  Impact - Impact on the attributes  Insignificant  Minor  X Significant  Major  Management response - Capacity of management to respond  X High capacity  Medium capacity  Low capacity and / or resources	^						
Temporal scale - Occurence of the impact  One off or rare  Intermittent or sporadic  Frequent  X On-going  Impact - Impact on the attributes  Insignificant  Minor  X Significant  Major  Management response - Capacity of management to respond  X High capacity  Medium capacity  Low capacity  No capacity and / or resources							
One off or rare Intermittent or sporadic Frequent  On-going Impact - Impact on the attributes Insignificant Minor  X Significant Major  Management response - Capacity of management to respond  X High capacity Medium capacity Low capacity No capacity and / or resources	T						
Intermittent or sporadic Frequent  X On-going  Impact - Impact on the attributes  Insignificant Minor  X Significant Major  Management response - Capacity of management to respond  X High capacity Medium capacity Low capacity No capacity and / or resources	remporars	cale - Occurence or the Impact					
Frequent  Con-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		0.00					
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							
Insignificant  Minor  Significant  Major  Management response - Capacity of management to respond  High capacity  Medium capacity  Low capacity  No capacity and / or resources		Intermittent or sporadic					
Insignificant Minor  Significant Major  Management response - Capacity of management to respond  High capacity  Medium capacity  Low capacity  No capacity and / or resources		Intermittent or sporadic Frequent					
Minor  Significant  Major  Management response - Capacity of management to respond  High capacity  Medium capacity  Low capacity  No capacity and / or resources		Intermittent or sporadic Frequent On-going					
Significant     Major  Management response - Capacity of management to respond      High capacity     Medium capacity     Low capacity  No capacity and / or resources		Intermittent or sporadic  Frequent  On-going  pact on the attributes					
Management response - Capacity of management to respond  High capacity  Medium capacity  Low capacity  No capacity and / or resources		Intermittent or sporadic  Frequent On-going pact on the attributes Insignificant					
Management response - Capacity of management to respond  ** High capacity  Medium capacity  Low capacity  No capacity and / or resources	Impact - In	Intermittent or sporadic  Frequent On-going pact on the attributes Insignificant Minor					
High capacity  Medium capacity  Low capacity  No capacity and / or resources	Impact - In	Intermittent or sporadic  Frequent  On-going  pact on the attributes  Insignificant  Minor  Significant					
Medium capacity  Low capacity  No capacity and / or resources	Impact - Im	Intermittent or sporadic  Frequent  On-going  pact on the attributes  Insignificant  Minor  Significant  Major					
Low capacity  No capacity and / or resources	Impact - Im	Intermittent or sporadic  Frequent  On-going  pact on the attributes  Insignificant  Minor  Significant  Major  nt response - Capacity of management to respond					
No capacity and / or resources	Impact - Im	Intermittent or sporadic  Frequent On-going  pact on the attributes Insignificant Minor Significant Major Int response - Capacity of management to respond  High capacity					
	Impact - Im	Intermittent or sporadic  Frequent On-going  pact on the attributes Insignificant Minor Significant Major Int response - Capacity of management to respond  High capacity					
Trend - Developement over the last 6 years	Impact - Im	Intermittent or sporadic  Frequent  On-going  pact on the attributes  Insignificant  Minor  Significant  Major  Int response - Capacity of management to respond  High capacity  Medium capacity					
	Impact - Im	Intermittent or sporadic  Frequent  On-going  pact on the attributes  Insignificant  Minor  Significant  Major  Int response - Capacity of management to respond  High capacity  Medium capacity  Low capacity					

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	Decreasing
×	Static
	Increasing

	Increasing					
Name		Impact		Origin		Trend
4.13.3 Gove	rnance	<b>()</b>	9	•	<b>G</b>	<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 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					

Name		Impact			Origin	
4.13.4 Management activities	•	9		•		/

Static Increasing

Spatial sca	ale - Area affected by the factor			
	Restricted			
	Localised			
×	Extensive			
	Widespread			
Temporal	scale - Occurence of the impact			
	One off or rare			

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	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - In	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	Tre	nd
4.13.5 Fina	ncial resources	<b>O</b>	4	•	_	
Spatial sca	le - Area affected by the factor					
	Restricted					
	Localised					
×	Extensive					
	Widespread					
Temporal	cale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - In	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					
	velopement over the last 6 years					

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	Decreasing					
	Static					
×	Increasing					
Name		Impact	en e	Origin		Trend
4.13.6 Huma	nn resources	•	9	•		<b>→</b>
Spatial scale	e - Area affected by the factor					
	Restricted					
	Localised					
×	Extensive					
	Widespread					
Temporal so	cale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going On-going					
Impact - Imp	pact on the attributes					
	Insignificant					
	Minor					
×	Significant					
	Major					
Managemen	t 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
4.13.7 Low i	mpact research/monitoring activities	•	9	•	<b>G</b>	<b>→</b>
Spatial scale	e - Area affected by the factor					
	Restricted					
×	Localised					
	Extensive					
	Widespread					
Temporal so	cale - Occurence of the impact					
	One off or rare					

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	Intermittent or sporadic
	Frequent
×	On-going Control of the Control of t
Impact - Im	ppact 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

#### 4.17. 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

Inscribed property is part of serial inscription. Darjeeling Himalayan Railway - Impact by Earthquakes and landslides. Kalka Shimla Railway - Impact by Storms, landslides and wild fire. For any negative impact on the property due to above factors, restoration of the property to its original state is carried out immediately.

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	Bold and ingenious engineering solutions	×			
4.18.1.2	Zigzag reverses and loops	×			
4.18.1.3	Continuing function and operation	×			
4.18.1.4	Innovative transport systems	×			
4.18.1.5	Emblematic of the technical and material efforts of human societies to dis-enclave mountain populations through the Railway	×			

#### 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 are adequate to maintain the property's Outstanding Universal Value

#### 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 buffer zones are adequate to maintain the property's Outstanding Universal Value

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

The buffer zones of the World Heritage property are known and recognised by both the management authority and local communities/landowners

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

The property has been satisfactorily maintained with regard to general state of infrastructure conservation and operation. The legal protection in place is adequate. The boundaries are adequate to maintain the general state of conservation and operation.

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#### 5.2. Protective Measures

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

The only protection to the Darjeeling Himalayan Railway applies to the permanent way, which is in principle controlled under the general measures relating to Central Government property and the specific provisions of the 1989 Railway Act.

The Nilgiri Mountain Railway has the legal protection available under the Indian constitution to Central Government property. The current protective measures are provided in the Railway act of 1989, dealing also with the pressures of unauthorised occupation of Government land and premises.

All the laws of the Indian Union relating to railways apply to the Kalka-Shima line, in particular:

- the Railway Act (1989), for technical protection measures.
- the *Public Premises Act* (1971). This includes in particular the right to expel unauthorised occupants by officers entrusted with this task by the Indian Railway Ministry.

# 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?

The legal framework for maintaining of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property provides an adequate basis for effective management and protection

# 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 **legal framework** in the buffer zone for the maintenance of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property provides an **adequate basis for effective management and protection** 

# 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?

The **legal framework** for the broader setting of the World Heritage property provides an **adequate basis for** effective management and protection of the property, contributing to the maintenance of its Outstanding Universal Value including conditions of Authenticity and/or Integrity

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

There is adequate 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

Estate Officer is entrusted and empowered by various Railway Acts for removal of encroachments and preventing unauthorized occupation and protect the boundaries of World Heritage property.

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

Local communities and other stakeholders have been involved for their participation in the process of preservation of the property by creating awareness about the Heritage Value of the Property.

### 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 management plan
An annual work plan or business plan
A disaster, climate or conflict risk management plan
A visitor/visitation management plan

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

The current property management plan covering the land, buildings, track, tunnels and the rolling stock provide framework for the maintenance of various assets of the property,

#### 5.3.4 - Management Documents

Title	Status	Available	Date	Link to source
Nilgiri Mountain Railway Property Management Plan	N/A	Available	2004	
Property Management Plan of Kalka Shimla Railway	N/A	Available	2007	

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# 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 applicable.

# 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?

Some 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:

Workshops, public outreach programs are used to create awareness regarding the impacts of climate change among school children, youth and common public. They are further encouraged to adopt environment friendly practices through cleanliness drives.

# 5.3.9 - Has any use been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property? Some 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

Occasional Landslides on Darjeeling Himalayan Railway at times interrupt the operations. Risk assessment is carried out regularly and measures are taken for restoration.

# 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 adequate coordination between all bodies/levels involved in the management of the property

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

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

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

The management system is being fully implemented and monitored

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

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

# 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	Rail Enthusiast	s, Rail Bharat Scout & Guide	volunteers etc.		

# 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				×	

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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

Management system of Mountain Railways of India compliments the applied bold and ingenious engineering solution to the problem of establishing an effective Rail Link across a mountainous terrain of great beauty. The Mountain Railways are an outstanding example of innovative transportation system built through difficult terrains, which had great influence on the social and economic development of the regions.

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

The primary role of the management system is carried out regular conservation, preservation and maintenance of the World Heritage Property. This is being carried out under the guidance of Ministry of Railways (Railway Board), Government of India.

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

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

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

The available budget is adequate for effective management of the World Heritage property

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

The existing sources of funding are secure over both the medium- and long-term

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

The funds for the maintenance and improvement of the property is provided by Government of India through the Ministry of Railways. The present funding is sufficient to manage the World Heritage Property and the sources of funding is secure.

# 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	70 %	80 %
6.1.6.2	Women	30 %	20 %
		Total 100 %	Total 100 %

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

Human resources are adequate for management needs

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

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

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

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

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

Training and capacity building at this property is fully based on 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.

Local communities & other stakeholders have been involved for having their participation in the capacity building for preservation of the property by creating awareness about its Heritage value and its preservation.

# 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 fully implemented; all technical skills are being transferred to those managing the property locally

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

Technical skills are being passed on to the next generation of workers through on the job training by the senior workers regarding the maintenance practices of heritage assets like steam locomotives, Coaches, Track, Machinery & Plant and other Assets.

#### 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 adequate

# 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 a **comprehensive**, **integrated programme** of research, which is relevant to 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

No comments.

#### 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	Good
Indigenous peoples	Fair
Landowners	Fair
Women	Fair
Youth/children	Fair
Researchers	Good
Local visitors	Good
National/international tourists	Good
Tourism industry	Good
Local businesses and industries	Good
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?

Local communities	
Local/municipal authorities	
Indigenous peoples	

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Landowners
Women
Youth/children
Researchers
Local Visitors
National/international tourists
Tourism industry
Local businesses and industries
NGOs

# 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	Good
Site museum	Good
Information booths	Good
Guided tours	Good
Trails/routes	Good
Printed information materials	Good
Online (website, social media, etc.)	Good
Transportation facilities	Good
Other	Not needed
If 'Other' is selected, please specify	

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

The visitor facilities and services mentioned in Question 8.4 above are adequate for information, awareness building and education, information and awareness building. Time to time awareness drives are being conducted among locals and school children.

### 9. Visitor Management

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

1,934,244 / 2,327,653 / 2,001,310 / 1,956,407 / 1,971,198 /

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

Entry tickets and registries

Accommodation establishments

Transportation services

Tourism industry

Other

Railway Tickets

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

Two overnight stays

#### 9.4 - Please provide the source of information

Heritage Mountain Railways are a mode of Transport for Tourist and Local Rail travelers and does not serve individually as hotel Industry. Sources of information are entry tickets, registries, railway tickets, accommodation details etc.

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

125 / 60 / 60 / 50 / 40 / 100 /

#### 9.6 - Please provide the source of information

As per the information given by the local Hotel Industry and other establishments in Darjeeling, Shimla and Ooty.

# 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 planned and effective strategy to manage visitors, tourism activity and its derived impacts on the World Heritage property

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

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Mountain Railways of India are a reliable mode of transport providing an effective rail link across mountain terrains.

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

Visitor use of the World Heritage property is effectively managed and does not impact its Outstanding Universal Value

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

Yes, using a different system

### If a different system, please specify

Through ticketing data and passenger feedback mechanism.

# 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 good 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 Outstanding Universal Value of the property is adequately presented and interpreted

#### 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 some contribution to the management of the World Heritage property

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

Voc

### If 'Yes', please specify

Mountain Railways are an effective mode of transport catering to the needs of Rail users either travelling for tourism purpose or otherwise.

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

Yes

#### If 'Yes', please specify

Mountain Railways are main attraction to the tourists visiting the Hill stations viz Darjeeling, Simla and Ooty. . Due to this, local communities, business people and hotel Industry are benefiting providing employment to local people.

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

For Mountain Railways, Revenue generated is from the sale of tickets only. Funds for the management of Heritage Railways come from the consolidated funds of Government of India.

#### 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 a **comprehensive**, **integrated programme of monitoring**, which is relevant to management needs and/or improving understanding of the 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				X
10.3.2	Effectiveness of the management system				X
10.3.3	Character of governance				X
10.3.4	Appropriate synergy with other conservation designations				×
10.3.5	Contribution to sustainable development				X
10.3.6	Capacity development				×

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

All the key indicators viz bridges, tunnels, structure and Annex buildings are preserved and well maintained. Indian Railway is committed to preserve the OUVs of Mountain Railways.

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

World Heritage managers/coordinators and staff	Good
Local/municipal authorities	Fair
Local communities	Fair
Indigenous peoples	Fair
Landowners	Fair
Women	Fair
Researchers	Not applicable
Tourism industry	Good
Local businesses and industry	Good
NGOs	Fair
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.

Recommendations from the World Heritage Committee are implemented on priority. Comprehensive Conservation Management Plan (CCMP) is being finalised with the help of UNESCO, Delhi office.

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

Regular monitoring works are undertaken from time to time, for maintenance of the Mountain Railways of India.

### 11. Identification of Priority Management Needs

### 11.1 - Identification of Priority Management Needs

5.3	Management System/Management Plan	
5.3.7	Some use has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	
5.3.9	Some use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property	×
Please	e select 1 more issues.	
☐ Plea	ase 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

4.9	Other human	activities					
4.9.6	Civil unrest	At present, there are no civil unrest in the property areas which can affect the properties.	Preventive actions are taken as per local needs & magnitude of the threat.	The property is monitored regularly for immediate required action.	Corrective actions are taken as and when there is need and it is ongoing.	In-house experts and local Law and order agencies.	Indian Railways Management is capable and fully equipped to face the situation and mitigate the hardships caused at the earliest to restore OUVs of the property.
4.10	Climate chan	nge and severe weather e	events				

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4.10.1	Storms	Storms and heavy rainfall tend to affect the property adversely.	Preventive actions are taken as per local needs & magnitude of the threat.	for	ne property is onitored regularly r immediate quired action.	aı	corrective actions re taken as and when there is need and it is ongoing.	In-house experts and local Government Authorities.	Indian Railways Management is capable and fully equipped to face the situation and mitigate the hardships caused at the earliest to restore OUVs of the property.
4.11	Sudden ecologi	ical or geological eve	nts						
4.11.2	Earthquake	Earthquakes, which a infrequent, tend to affithe property adversely	ect are taken as per		The property is monitored regularl for immediate required action.	ly	Corrective actions are taken as and when there is need and it is ongoing.	In-house experts and local Government authorities.	Indian Railways Management is capable and fully equipped to face the situation and mitigate the hardships caused at the earliest to restore OUVs of the property.
4.11.4	Avalanche/Landslid	le There are no avalanches. Howe landslides tend to affect the property adversely.	local needs &	er	The property is monitored regularly for immediate required action.		ularly are taken as and and local authorities. when there is need		Indian Railways Management is capable and fully equipped to face the situation and mitigate the hardships caused at the earliest to restore OUVs of the property.
4.11.6	Fire (wildfire)	Wild fires tend to affect the property to some extent. There have been no incident of wildfire in the recent past that has affected the property in any way.	Preventive actions are taken as per local needs & magnitude of the threat. Special beat staff is deputed to check such incidents and keep it under control.	mon for ir requ Reco	property is itored regularly mmediate irred action. ording of all lents in the ral risk map.	are whe	rrective actions taken as and en there is need d it is ongoing.	In-house experts of Mountain Railways of India and local Government Authorities.	Indian Railways Management is capable and fully equipped to face the situation and mitigate the hardships caused at the earliest to restore OUVs of the property.

# Summary - Factors affecting the Property **completed**

# 12.2. Summary - Management Needs

#### 12.2.1 - Summary - Management Needs

5.3	Management Sys	Management System/Management Plan							
		Actions	Timeframe	Lead agency (and others involved)	More info / comment				
5.3.9	Some use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property	Implementation of disaster risk reduction capacity building and preventive action program. Preparation of post disaster program.	On going process.	Indian Railways (Darjeeling Himalayan Railway - Northeast Frontier Railway, Kalka-simla Railway - Northern Railway and Nilgiri Mountain Railway - Southern Railway).	Risk assessment is done regularly and measures are in place for restoration of the operations promptly.				

#### Summary - Management Needs 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?

The Authenticity of the World Heritage property has been preserved

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 **maintained**.

#### 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

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

Mountain Railways of India are still an outstanding example of hill passenger railway. It is still fully operational and key factors are perfectly conserved retaining its original features intact. The conservation is being done to keep it as much as possible in original condition.

#### 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	Very positive
Quality of life for local communities and indigenous peoples	Positive
Recognition	Very positive
Education	Positive
Infrastructure development	Positive
Funding for the property	Very positive
International cooperation	Positive
Political support for conservation	Very positive
Legal/Policy framework	Very positive
Advocacy	Positive
Institutional coordination	Very positive
Security	Very positive
Gender equality	Very 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	Very positive
Fostering inclusive local economic development and enhancing livelihood	Very positive
Contributing to conflict prevention, including respect for cultural diversity within and around heritage properties	Very positive
Other	Not applicable
If 'Other', please specify	

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

The Mountain Railways are alive to the need to conserve the entire system in its original glory and necessary steps to this effect are being taken as per World Heritage site status. Although the revenue generated is very low, still these lines up the hills are being operated and maintained in the heritage interest. This also helps to preserve the old World Charm of Narrow Gauge era and memories.

### 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

Darjeeling Himalayan Railway, Kalka Shimla Railway and Nilgiri Mountain Railway are preserved as an outstanding example of Hill Railways. The old Rail link across the mountain terrain of great beauty is being maintained and kept operational. The conservation is being done to keep it as much as possible, in original condition with its original features even to the extent of maintaining steam traction. Proper administrative arrangements divided into technical and non technical departments are there to take care of necessary requirements for operating, maintaining the Hill Railways and conserve their authenticity. Also investment to induct new Rolling stock and Locomotives are being contemplated. The priority and attention the Mountain Railways is getting from the Govt. of India is evident from the level of investment made annually and that contemplated in future.

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

stainable Development	
vnergies	
ate of Conservation	
anagement	
overnance	
apacity Building	

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### 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	Good
Site Managers	Good
UNESCO World Heritage Centre	Good
Advisory Bodies (ICOMOS, IUCN, ICCROM)	Good

#### 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

Awareness raising

Advocacy

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

The Management and organisation that makes everything possible over Mountain Railways is through Government of India, Ministry of Railways (Railway Board), Zonal Railways and Division Railways and Directors of Hill Railways. Decision will be taken collectively on line with the data from the cycle of Periodic reporting favoring the World Heritage property.

#### 15.3. Timing and resources

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

Governmental institutions responsible for cultural and natural heritage

Site Manager/Coordinator World Heritage property staff

# 15.3.2 - Has a gender balanced contribution and participation been considered in the filling out of this questionnaire? Gender balance is explicitly considered and effectively implemented in the process.

# 15.3.3 - Were you given adequate time (i.e. roughly ten months) to gather necessary information and to fill in this questionnaire? Yes

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

80 / 100 / 120 /

### 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?

 $\textbf{Most} \ \text{required information was accessible}.$ 

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

Ver	ery Difficult	Difficult	Easy	Very easy
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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

The process may be made more site-specific as all parameters may not be applicable to all sites.

#### 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	Good
UNESCO (other sectors/field offices)	Good
UNESCO National Commission	Not applicable
ICOMOS International	Not applicable
IUCN International	Not applicable
ICCROM international/regional	Not applicable
ICOMOS national/regional	Not applicable
IUCN national/regional	Not applicable

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

UNESCO World Heritage Centre	Good
State Party Representative (national Focal Point)	Good
UNESCO other sectors (e.g. field office)	Fair
National Commission for UNESCO	Not applicable
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?

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

No item were proposed for update

# 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

Some questions/sections may be more applicable to certain sites than others. In such cases, the questionnaire could be made more site-specific, or an option to mark questions/sections as not applicable should be provided.

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

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