Welcome to your CDP Forests Questionnaire 2020

F0. Introduction

F0.1

(F0.1) Give a general description of and introduction to your organization.

Hindustan Zinc is a zinc, lead and silver business. We are one of the world's largest integrated producers of zinc and are among leading global lead and silver producers.
We are one of the lowest cost producers in the world and are well placed to serve the growing demand of Asian countries. We are a subsidiary of Vedanta Limited which owns 64.9% stake in the Company while the Government of India retains a 29.5% stake. We are listed on the NSE and BSE.
Our core business comprises of mining and smelting of zinc and lead along with captive power generation. We have a metal production capacity of over one million tonnes per annum with our key lead-zinc mines in Rampura Agucha and Sindesar Khurd; and key modern smelting complexes in Chanderia and Dariba, all in the state of Rajasthan in India. We are focused on operational excellence and long-term sustainability on the back of our high-quality assets, long mine life of over 25 years and low cost base.
With a reserve base of 114.7 million MT and mineral resources of 288 million MT, our exploration programme is integral to our growth and future expansions. Successful exploration and subsequent development of mineral assets underlines our mission and business strategy. We own 474 MW of coal based thermal captive power plants in Rajasthan to support our metallurgical operations. In addition, our environment friendly power generation includes 273.5 MW of wind energy, 39.64 MW Solar power and 35.37 MW from waste heat generation.

We understand that the nature of our operations has implications on the environment in different ways through the emission of particulates, wastes generated in mining, refining and smelting processes, water consumption and changes in land use. We are committed to minimising our environmental footprint from the start of operations to closure and beyond.
In order to promote a best practice management approach to biodiversity, we have reviewed all operations through the mapping tool Integrated Biodiversity Assessment Tool (IBAT) to identify which of our sites are operating within close proximity of protected International Union for Conservation of Nature (IUCN) areas, important bird areas and key biodiversity hot spots. The results of the biodiversity risk screening programme have led us to prioritise the subsequent biodiversity management processes. All our sites have biodiversity management plans (BMP) in place.

F0.2

(F0.2) State the start and end date of the year for which you are reporting data.

	Start Date	End Date

Reporting year	April 1, 2019	March 31, 2020

F0.3

(F0.3) Select the currency used for all financial information disclosed throughout your response.

INR

F-MM0.6/F-CO0.6

(F-MM0.6/F-CO0.6) Select the option that best describes the reporting boundary for which biodiversity-related issues are being reported?

Companies, entities or groups over which operational control is exercised

F-MM0.7/F-CO0.7

(F-MM0.7/F-CO0.7) Within your reporting boundary, are there any geographical areas, business units or mining projects excluded from your disclosure?

Yes

F-MM0.7a/F-CO0.7a

(F-MM0.7a/F-CO0.7a) Please report your exclusions and describe their potential for biodiversity-related risk.

Exclusion	Description of exclusion	Potential for biodiversity-related risk	Please explain
Other, please specify	Marketing Offices	No potential	We have excluded marketing offices where we dont consider risk to the biodiversity.

F9 Current state

F-MM9.1/F-CO9.1

(F-MM9.1/F-CO9.1) Provide details on the mining projects covered by this disclosure, by specifying your project(s) type, location and mining method(s) used.

Mining project ID

Project 1

Name

Rampura Agucha Mine

Share (%)

100

Country/Area

India

Latitude

25.83

Longitude

74.74

Project stage

Production

Mining method

Underground

Raw material(s)

Zinc

Lead

Year extraction started/is planned to start

1991

Year of closure

2040

Description of project

Rampura Agucha is the second largest zinc mine in the world with a production of 3.9 million MT in FY 2020. It stands apart as a world class ore body with zinc-lead reserve grade averaging 14.2%. Total Reserve are 39 million MT and mineral resources are 45.8 million MT as on March 31, 2020. The mine has a production capacity of 4.5 million MT per annum. Zinc and lead concentrates produced at Rampura Agucha are transferred to our smelters. The tailing generated due to beneficiation of ore are used by paste filling plants.

Mining project ID

Project 2

Name

Rajpura Dariba Mine

Share (%)

100

Country/Area

India

Latitude
24.95

Longitude
74.13

Project stage
Production

Mining method
Underground

Raw material(s)
Zinc
Lead

Year extraction started/is planned to start
1983

Year of closure
2040

Description of project

Rajpura Dariba Mine is an underground lead-zinc mine with reserve grade of 6.8% and is one of our oldest mines where mining operations began in 1983. The mine produced 1.1 million MT of ore in FY 2020. Mine is presently accessed via decline and main shaft. Total reserves are 20.4 million MT and mineral resources are 38.5 million MT as on March 31, 2020. Zinc and Lead concentrates produced are transferred to our smelters.

Mining project ID
Project 3

Name
Sindesar Khurd Mines

Share (%)
100

Country/Area
India

Latitude
25

Longitude
74.16

Project stage
Production

Mining method

Underground

Raw material(s)

Zinc

Lead

Year extraction started/is planned to start

2006

Year of closure

2040

Description of project

Sindesar Khurd Mine is India's largest underground mine with production of 5.1 million MT in FY 2020. With average reserve grade of 5.9%, the mine differentiates itself with its silver-rich zinc-lead deposit and highly automated and low cost of operations.

The mine production began in April 2006 and has undergone several phases of expansions from 0.3 million MT to its current capacity of 6.0 million MT. SKM lies on the same geological belt as the Rajpura Dariba Mine. Access to the mine is presently through declines (North and South) and an underground shaft. It has a reserve of 37.3 million MT and mineral resource base of 79 million MT as on March 31, 2020. Zinc and lead concentrates produced are transferred to our smelters. The tailing generated due to beneficiation of ore are used by paste fill plants.

Mining project ID

Project 4

Name

Zawar Mines

Share (%)

100

Country/Area

India

Latitude

24.35

Longitude

73.71

Project stage

Production

Mining method

Underground

Raw material(s)

Zinc

Lead

Year extraction started/is planned to start

1942

Year of closure

2040

Description of project

Zawar Mines consists of four mines namely Mochia, Balaria, Zawar Mala and Baroi with average zinc-lead reserve grade of 4.6%. Zawar group of mines are a symbol of the Company's legacy with constant addition to its reserve and resource base. Access to the mines as well as ore hoisting hauling is through shaft decline. The mine produced 3.3 million MT of ore in FY 2020. It has a reserve of 14.2 million MT and mineral resource base of 82.2 million MT as on March 31, 2020.
Zinc and lead concentrates produced are transferred to our smelters.

Mining project ID

Project 5

Name

Kayad mines

Share (%)

100

Country/Area

India

Latitude

26.53

Longitude

74.69

Project stage

Production

Mining method

Underground

Raw material(s)

Zinc

Lead

Year extraction started/is planned to start

2013

Year of closure

2025

Description of project

Kayad mine started its operations in 2013 and has zinc-lead reserve grade of 6.1%. In FY2020, Kayad produced 1.1 million MT of ore. Its total reserve & resource are 5.5 million MT as on March 31, 2020. The ore from Kayad mine is treated in mills at Rampura Agucha Mine.

F-MM9.2/F-CO9.2

(F-MM9.2/F-CO9.2) Can you disclose the mining project area and the area of land disturbed for each of your mining projects?

	Disclosing mining project area and area of land disturbed?	Comment
Row 1	Yes	

F-MM9.2a/F-CO9.2a

(F-MM9.2a/F-CO9.2a) Provide details on the mining project area and the area of land disturbed for each of your mining projects.

Mining project ID

Project 1

Total area of owned land/lease/concession (hectares)

1,200

Total area disturbed to date (hectares)

1,021.75

Area disturbed in the reporting year (hectares)

0

Type(s) of habitat disturbed in the reporting year

Natural habitat

Comment

Mining project ID

Project 2

Total area of owned land/lease/concession (hectares)

1,142

Total area disturbed to date (hectares)

260.48

Area disturbed in the reporting year (hectares)

0

Type(s) of habitat disturbed in the reporting year

Natural habitat

Comment

Mining project ID

Project 3

Total area of owned land/lease/concession (hectares)

199.84

Total area disturbed to date (hectares)

129

Area disturbed in the reporting year (hectares)

0

Type(s) of habitat disturbed in the reporting year

Natural habitat

Comment

Mining project ID

Project 4

Total area of owned land/lease/concession (hectares)

3,620

Total area disturbed to date (hectares)

397.76

Area disturbed in the reporting year (hectares)

0

Type(s) of habitat disturbed in the reporting year

Natural habitat

Comment

Mining project ID

Project 5

Total area of owned land/lease/concession (hectares)

480.45

Total area disturbed to date (hectares)

48.5

Area disturbed in the reporting year (hectares)

0

Type(s) of habitat disturbed in the reporting year

Modified habitat

Comment

F-MM9.3/F-CO9.3

(F-MM9.3/F-CO9.3) Are any of your mining projects located in or near legally protected and internationally recognized areas?

	Are any of your projects in or near?	Comment
Legally protected area(s)	No	HZL has a commitment not to operate/explore/mine/drill in World Heritage areas and IUCN Category I-IV protected areas
UNESCO World Heritage sites	No	HZL has a commitment not to operate/explore/mine/drill in World Heritage areas and IUCN Category I-IV protected areas
UNESCO Biosphere Reserves	No	HZL has a commitment not to operate/explore/mine/drill in World Heritage areas and IUCN Category I-IV protected areas
Ramsar sites	No	HZL has a commitment not to operate/explore/mine/drill in World Heritage areas and IUCN Category I-IV protected areas
Key Biodiversity Area(s)	No	HZL has a commitment not to operate/explore/mine/drill in World Heritage areas and IUCN Category I-IV protected areas

F-MM9.4/F-CO9.4

(F-MM9.4/F-CO9.4) Are there artisanal and small-scale mining (ASM) operations active in your mining concessions or in their area of influence?

No

F-MM9.5/F-CO9.5

(F-MM9.5/F-CO9.5) Have biodiversity-related issues led to detrimental impact(s) on your business in the reporting year?

	Biodiversity-related issues led to detrimental impacts on the business?	Comment
Row 1	No	

F-MM9.6/F-CO9.6

(F-MM9.6/F-CO9.6) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for violation of biodiversity-related regulation?

	Any penalties for violation of biodiversity-related regulation?	Comment
Row 1	No	

F10 Procedures

F-MM10.1/F-CO10.1

(F-MM10.1/F-CO10.1) Have biodiversity impacts and risks of your mining projects been assessed before the project development stage?

TS 8_Conducting ESIA to International Standards Final 30September 2011 Issued.pdf

	Biodiversity impacts and risks assessed before the project development stage?	Please explain
Row 1	Yes, in all cases	Environmental risks and impacts, including those related to biodiversity, are considered in the planning, permitting and impact assessment phases of each project. A baseline study involves conducting field surveys of the total area to be affected by the project and making observations of the land uses and species present there. It is typically form part of the scope of the environmental and social impact assessment (ESIA) for all the green field and brownfield projects. During project permitting, detailed Environment and Social Impact Assessments (ESIAs) are conducted to support approval of the project by regulators and support for the project from stakeholders. We identify and

		understand the critical biodiversity areas and develop an action plan to mitigate the risks associated with new project activities on the region's biodiversity. Even at the closure stage we work towards restoring the land as close as possible to its natural state. The Company has a separate policy on Biodiversity and stays committed to prevent risk on biodiversity throughout its business by conserving rare and endangered species and high priority conservation areas. We follow Vedanta Sustainability framework (based on standards and guidelines of entities such the International Finance Corporation (IFC), the International Council on Mining and Metals (ICMM) and the Organisation for Economic Co-operation and Development (OECD)and consists of technical and Management standard . We follow the Technical Standard -8 'Conducting ESIA to International Standards', 'Biodiversity management standard' and 'Guidance note of Biodiversity management' for all our projects aims to predict and evaluate the significance of positive and negative impacts to the environment and people from a proposed project. We ensure that the requirements of this Technical Standard are adhered to as part of every potential new project or expansion activity and during the lifetime of every project in order to ensure that environmental, social and health impacts are systematically considered in all business decisions. Also to be able to fulfill its responsibilities towards the preservation of the environment and Biodiversity, all the mining activities of HZL are conformed to regulatory Standards and it complies with the ISO 14001 Standards.

F-MM10.1a/F-CO10.1a

(F-MM10.1a/F-CO10.1a) Select the options that best describe your procedures for identifying and assessing biodiversity-related impacts and risks.

Mining project ID

Project 1

Type of assessment

Full-scale environmental and social impact assessment

Impacts considered

Direct impacts

Scope defined by

Governmental agency requirements

Company own standards and/or policies

Methods and tools

Desk-based research
Field surveys
Landscape-scale field surveys
Expert consultation
Stakeholder consultation/analysis
IBAT for Business
National specific tools and databases

Aspects considered

Locational alternatives
Threatened species
Migratory species
Endemic species
Protected areas
Critical habitats
Natural habitats
Ecosystem services

Baseline biodiversity data available?

Yes

Is the Environmental Impact Statement publicly available?

No

Please explain

1. We used the Integrated Biodiversity Assessment Tool (IBAT) mapping tool for the screening process and categorised our operations as high/ medium/ low according to the risk category they fell in. IBAT is a central database of globally recognised biodiversity information that can be used to map out the locations of important biodiversity areas, protected areas, and areas categorised by IUCN (International Union for Conservation of Nature) as significant for species of plants or animals. The study confirmed that our operations did not pose any threat to their associated biodiversity. We have prioritised the biodiversity management processes based on this initial risk screening to develop a unique and exclusive BMP for all our operations.

2. During the EIA Study the survey was undertaken to identify the floral and faunal species within the mine lease and area in 10 km radial distances. Assessment of conservation status of species in conformation of the IWPA, IUCN red-list (2014) and endemic status of the flora/ fauna in the area along with their use by local communities;Identification of impacts and Preparation of detailed mitigation measures. Latest was done in year 2009 hence not updated on MOEF site.

3. Detailed biodiversity assessment was carried out by third party to assess the biodiversity in both core and buffer zone of 10 km radius of mines. Currently, all our sites have Biodiversity Management Plans (BMP) in place

4. As per Vedanta Technical standard we follow the steps for Biodiversity management
STAGE-1- BIODIVERSITY RISK SCREENING- Biodiversity risk screening is undertaken for each site , using IBAT (Integrated Biodiversity Assessment Tool).
STAGE 2 - BIODIVERSITY RISK ASSESSMENT- Our environmental managers or third party conducts a biodiversity risk assessment, which consists of a desk-based study of information on local biodiversity and ecosystem services and associated regulations. This assessment provides more detailed and site-specific information than the initial biodiversity risk screening conducted in Stage 1. The purpose of the assessment is to verify that the site has been assigned the most appropriate biodiversity risk rating.
STAGE 3 - DEVELOPING A BMP- Based on the guidance we conducted
STAGE 4 - MONITORING AND REPORTING of BMP plan and biodiversity performance indicator.

Mining project ID

Project 2

Type of assessment

Full-scale environmental and social impact assessment

Impacts considered

Direct impacts

Scope defined by

Governmental agency requirements
Company own standards and/or policies

Methods and tools

Desk-based research
Field surveys
Landscape-scale field surveys
Expert consultation
Stakeholder consultation/analysis
IBAT for Business
National specific tools and databases

Aspects considered

Locational alternatives
Threatened species
Migratory species
Endemic species
Protected areas
Critical habitats
Natural habitats
Ecosystem services

Baseline biodiversity data available?

Yes

Is the Environmental Impact Statement publicly available?

Yes

Please explain

1. We used the Integrated Biodiversity Assessment Tool (IBAT) mapping tool for the screening process and categorised our operations as high/ medium/ low according to the risk category they fell in. IBAT is a central database of globally recognised biodiversity information that can be used to map out the locations of important biodiversity areas, protected areas, and areas categorised by IUCN (International Union for Conservation of Nature) as significant for species of plants or animals. The study confirmed that our operations did not pose any threat to their associated biodiversity. We have prioritised the biodiversity management processes based on this initial risk screening to develop a unique and exclusive BMP for all our operations.

2. During the EIA Study the survey was undertaken to identify the floral and faunal species within the mine lease and area in 10 km radial distances. Assessment of conservation status of species in conformation of the IWPA, IUCN red-list (2014) and endemic status of the flora/ fauna in the area along with their use by local communities;Identification of impacts and Preparation of detailed mitigation measures

3. Detailed biodiversity assessment was carried out by third party to assess the biodiversity in both core and buffer zone of 10 km radius of mines. Currently, all our sites have Biodiversity Management Plans (BMP) in place

4. As per Vedanta Technical standard we follow the steps for Biodiversity management STAGE-1- BIODIVERSITY RISK SCREENING, STAGE 2 - BIODIVERSITY RISK ASSESSMENT- Our environmental managers or third party conducts a biodiversity risk assessment, which consists of a desk-based study of information on local biodiversity and ecosystem services and associated regulations. . The purpose of the assessment is to verify that the site has been assigned the most appropriate biodiversity risk rating.
STAGE 3 - DEVELOPING A BMP- Based on the guidance we conducted
STAGE 4 - MONITORING AND REPORTING of BMP plan and biodiversity performance indicator.

Link of EIA report
http://environmentclearance.nic.in/DownloadPfdFile.aspx?FileName=WkB6f0vb+KUaDY6CfZy5pzP1Dy6CGcZsxmeYP9Nxthz0nqFMV2I03EhkBU45eGC14l2SF1Q0suxHgtKwHjY7rg==&FilePath=93ZZBm8LWEXfg+HAlQix2fE2t8z/pgnoBhDlYdZCxzUeqEISsDpNmaozay3MPM7v

Mining project ID

Project 3

Type of assessment

Full-scale environmental and social impact assessment

Impacts considered

Direct impacts

Scope defined by

Governmental agency requirements
Company own standards and/or policies

Methods and tools

Desk-based research
Field surveys
Landscape-scale field surveys
Expert consultation
Stakeholder consultation/analysis
IBAT for Business
National specific tools and databases

Aspects considered

Locational alternatives
Threatened species
Migratory species
Endemic species
Protected areas
Critical habitats
Natural habitats
Ecosystem services

Baseline biodiversity data available?

Yes

Is the Environmental Impact Statement publicly available?

Yes

Please explain

1. We used the Integrated Biodiversity Assessment Tool (IBAT) mapping tool for the screening process and categorised our operations as high/ medium/ low according to the risk category they fell in. IBAT is a central database of globally recognised biodiversity information that can be used to map out the locations of important biodiversity areas, protected areas, and areas categorised by IUCN (International Union for Conservation of Nature) as significant for species of plants or animals. The study confirmed that our operations did not pose any threat to their associated biodiversity. We have prioritised the biodiversity management processes based on this initial risk screening to develop a unique and exclusive BMP for all our operations.

2. During the EIA Study the survey was undertaken to identify the floral and faunal species within the mine lease and area in 10 km radial distances. Assessment of conservation status of species in conformation of the IWPA, IUCN red-list (2014) and

endemic status of the flora/ fauna in the area along with their use by local communities;Identification of impacts and Preparation of detailed mitigation measures

3. Detailed biodiversity assessment was carried out by third party to assess the biodiversity in both core and buffer zone of 10 km radius of mines. Currently, all our sites have Biodiversity Management Plans (BMP) in place

4. As per Vedanta Technical standard we follow the steps for Biodiversity management STAGE-1- BIODIVERSITY RISK SCREENING, STAGE 2 - BIODIVERSITY RISK ASSESSMENT- Our environmental managers or third party conducts a biodiversity risk assessment, which consists of a desk-based study of information on local biodiversity and ecosystem services and associated regulations. . The purpose of the assessment is to verify that the site has been assigned the most appropriate biodiversity risk rating.
STAGE 3 - DEVELOPING A BMP- Based on the guidance we conducted
STAGE 4 - MONITORING AND REPORTING of BMP plan and biodiversity performance indicator.
Link of EIA
http://environmentclearance.nic.in/DownloadPfdFile.aspx?FileName=GGWHZwNGmFaOw7NEhKSFGaMuXCncL6QexRZFue8JA2GIuENyt/UwGQlm2VIMT3i5aTc0aRuILf56YCPU8/Ck4R43/BwTBE/mZGEBLwZPHnhb2eEKDafevR5BEDdJJldb&FilePath=93ZZBm8LWEXfg+HAlQix2fE2t8z/pgnoBhDlYdZCxzUeqEISsDpNmaozay3MPM7v

Mining project ID

Project 4

Type of assessment

Full-scale environmental and social impact assessment

Impacts considered

Direct impacts

Scope defined by

Governmental agency requirements
Company own standards and/or policies

Methods and tools

Desk-based research
Field surveys
Landscape-scale field surveys
Expert consultation
Stakeholder consultation/analysis
IBAT for Business
National specific tools and databases

Aspects considered

Locational alternatives

Threatened species
Migratory species
Endemic species
Protected areas
Critical habitats
Natural habitats
Ecosystem services

Baseline biodiversity data available?

Yes

Is the Environmental Impact Statement publicly available?

Yes

Please explain

1. We used the Integrated Biodiversity Assessment Tool (IBAT) mapping tool for the screening process and categorised our operations as high/ medium/ low according to the risk category they fell in. IBAT is a central database of globally recognised biodiversity information that can be used to map out the locations of important biodiversity areas, protected areas, and areas categorised by IUCN (International Union for Conservation of Nature) as significant for species of plants or animals. The study confirmed that our operations did not pose any threat to their associated biodiversity. We have prioritised the biodiversity management processes based on this initial risk screening to develop a unique and exclusive BMP for all our operations.

2. During the EIA Study the survey was undertaken to identify the floral and faunal species within the mine lease and area in 10 km radial distances. Assessment of conservation status of species in conformation of the IWPA, IUCN red-list (2014) and endemic status of the flora/ fauna in the area along with their use by local communities;Identification of impacts and Preparation of detailed mitigation measures

3. Detailed biodiversity assessment was carried out by third party to assess the biodiversity in both core and buffer zone of 10 km radius of mines. Currently, all our sites have Biodiversity Management Plans (BMP) in place

4. As per Vedanta Technical standard we follow the steps for Biodiversity management STAGE-1- BIODIVERSITY RISK SCREENING, STAGE 2 - BIODIVERSITY RISK ASSESSMENT- Our environmental managers or third party conducts a biodiversity risk assessment, which consists of a desk-based study of information on local biodiversity and ecosystem services and associated regulations. . The purpose of the assessment is to verify that the site has been assigned the most appropriate biodiversity risk rating. STAGE 3 - DEVELOPING A BMP- Based on the guidance we conducted STAGE 4 - MONITORING AND REPORTING of BMP plan and biodiversity performance indicator.

Link of EIA
http://environmentclearance.nic.in/DownloadPfdFile.aspx?FileName=mBfvn5mJVmTZQ6OmtCdeA/Qh7jkDBvS2O1aoCr9n0+uHQqJf+uS6aQv6/zOE96XhN+eVikCGJFiWmGA

5Pokr1A==&FilePath=93ZZBm8LWEXfg+HAlQix2fE2t8z/pgnoBhDlYdZCxzUeqEISsDpNmaozay3MPM7v

Mining project ID

Project 5

Type of assessment

Full-scale environmental and social impact assessment

Impacts considered

Direct impacts

Scope defined by

Governmental agency requirements
Company own standards and/or policies

Methods and tools

Desk-based research
Field surveys
Landscape-scale field surveys
Expert consultation
Stakeholder consultation/analysis
IBAT for Business
National specific tools and databases

Aspects considered

Locational alternatives
Threatened species
Migratory species
Endemic species
Protected areas
Critical habitats
Natural habitats
Ecosystem services

Baseline biodiversity data available?

Yes

Is the Environmental Impact Statement publicly available?

Yes

Please explain

1. We used the Integrated Biodiversity Assessment Tool (IBAT) mapping tool for the screening process and categorised our operations as high/ medium/ low according to the risk category they fell in. The study confirmed that our operations did not pose any threat to their associated biodiversity. We have prioritised the biodiversity management processes based on this initial risk screening to develop a unique and exclusive BMP for

all our operations.

2. During the EIA Study the survey was undertaken to identify the floral and faunal species within the mine lease and area in 10 km radial distances. Assessment of conservation status of species in conformation of the IWPA, IUCN red-list (2014) and endemic status of the flora/ fauna in the area along with their use by local communities;Identification of impacts and Preparation of detailed mitigation measures

3. Detailed biodiversity assessment was carried out by third party to assess the biodiversity in both core and buffer zone of 10 km radius of mines. Currently, all our sites have Biodiversity Management Plans (BMP) in place

4. As per Vedanta Technical standard we follow the steps for Biodiversity management STAGE-1- BIODIVERSITY RISK SCREENING, STAGE 2 - BIODIVERSITY RISK ASSESSMENT- Our environmental managers or third party conducts a biodiversity risk assessment, which consists of a desk-based study of information on local biodiversity and ecosystem services and associated regulations. . The purpose of the assessment is to verify that the site has been assigned the most appropriate biodiversity risk rating. STAGE 3 - DEVELOPING A BMP- Based on the guidance we conducted STAGE 4 - MONITORING AND REPORTING of BMP plan and biodiversity performance indicator.

Link of EIA report (EIA Summary uploaded along with other additional documents. Complete EIA was submitted as Hard copy in MOEF&CC. http://environmentclearance.nic.in/DownloadPfdFile.aspx?FileName=h/hRDezFr9fmHq6tIpWB1gx0jowzQHDkgetJUCdIL1JxB9iVmYLBAZ0km9GNDmwDQXpYXO+vdoCkZsAMFK/Q+OyimH2H4D90Vp8/Y9KSYKf1m1QNrzPGvfx1sHSOsZLY90HpFs7SwvOSTOOFFJ6Wyo6KJjnh1tp8Cx2FllVYIis=&FilePath=93ZZBm8LWEXfg+HAlQix2fE2t8z/pgnoBhDlYdZCxzXmG8GlihX6H9UP1HygCn3pv1ma6ukaaKwTEwue+Z8DhY0JVUyjJHD+10nj4NsGFZc=

F-MM10.2/F-CO10.2

(F-MM10.2/F-CO10.2) Does your organization undertake a corporate-level procedure to assess biodiversity-related risks to your business?

	Is there a procedure to assess biodiversity-related risks?	Comment
Row 1	Yes	As per Vedanta Technical standard we follow the four steps for Biodiversity management STAGE-1- BIODIVERSITY RISK SCREENING- Biodiversity risk screening is undertaken for each site , using IBAT (Integrated Biodiversity Assessment Tool).

		STAGE 2 - BIODIVERSITY RISK ASSESSMENT- Our environmental managers or third party conducts a biodiversity risk assessment, which consists of a desk-based study of information on local biodiversity and ecosystem services and associated regulations. This assessment provides more detailed and site-specific information than the initial biodiversity risk screening conducted in Stage 1. The purpose of the assessment is to verify that the site has been assigned the most appropriate biodiversity risk rating. STAGE 3 - DEVELOPING A BMP- Based on the guidance we conducted STAGE 4 - MONITORING AND REPORTING of BMP plan and biodiversity performance indicator.

F-MM10.2a/F-CO10.2a

(F-MM10.2a/F-CO10.2a) Select the options that best describe your procedure for identifying and assessing biodiversity-related risks.

Row 1

Risk assessment procedure

Other, please specify

Part of ESIA and Standalone assessment

Frequency of assessment

Other, please specify

1. As apart of EIA Studies, 2. IBAT assessment , 3. Biodiversity assessment

How far into the future are risks considered?

> 6 years

Tools and methods used to identify and assess risks

Internal company methods
External consultants
IBAT for Business
National specific tools and databases

Please explain

As per Vedanta Technical standard we follow the five steps for Biodiversity management
STAGE-1- BIODIVERSITY RISK SCREENING- Biodiversity risk screening is undertaken for each site , using IBAT (Integrated Biodiversity Assessment Tool).
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STAGE 3 - DEVELOPING A BMP- Based on the guidance we conducted
STAGE 4 - MONITORING AND REPORTING of BMP plan and biodiversity

performance indicator.

1.We used the Integrated Biodiversity Assessment Tool (IBAT) mapping tool for the screening process and categorised our operations as high/ medium/ low according to the risk category they fell in. The study confirmed that our operations did not pose any threat to their associated biodiversity. We have prioritised the biodiversity management processes based on this initial risk screening to develop a unique and exclusive BMP for all our operations.

2. During the EIA Study the survey was undertaken to identify the floral and faunal species within the mine lease and area in 10 km radial distances. Assessment of conservation status of species in conformation of the IWPA, IUCN red-list (2014) and endemic status of the flora/ fauna in the area along with their use by local communities;Identification of impacts and Preparation of detailed mitigation measures

3. Detailed biodiversity assessment was carried out by third party to assess the biodiversity in both core and buffer zone of 10 km radius of mines. Currently, all our sites have Biodiversity Management Plans (BMP) in place.

F-MM10.2b/F-CO10.2b

(F-MM10.2b/F-CO10.2b) Which of the following issues are considered in your organization's biodiversity-related risk assessment(s)?

	Relevance & inclusion	Please explain
Deforestation	Relevant, always included	It is considered during the design phase of any project as part of ESIA .
Legally protected areas	Relevant, always included	It is considered during the design phase of any project as part of ESIA and standalone biodiversity assessment
Internationally recognized areas	Relevant, always included	It is considered during the design phase of any project as part of ESIA and standalone biodiversity assessment
Threatened, migratory and endemic species	Relevant, always included	It is considered during the design phase of any project as part of ESIA and standalone biodiversity assessment
Ecosystem services	Relevant, always included	It is considered during the design phase of any project as part of ESIA and standalone biodiversity assessment
Regulation	Relevant, always included	It is considered during the design phase of any project as part of ESIA and standalone biodiversity assessment

Indigenous peoples	Relevant, always included	It is considered during the design phase of any project as part of ESIA and standalone biodiversity assessment
Local communities	Relevant, sometimes included	It is considered during the design phase of any project as part of ESIA and standalone biodiversity assessment
Other, please specify		

F-MM10.2c/F-CO10.2c

(F-MM10.2c/F-CO10.2c) Which of the following stakeholders are considered in your organization's biodiversity-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	During the project development phase we follow Public consultation process by which the concerns of the all stakeholders including customers are ascertained and taken into account in the EIA study and associated risk assessment. Every three year we conduct Materiality Analysis and take the inputs of all the key stakeholders and Biodiversity Management also taken into the consideration and based on the complete analysis Biodiversity Management Stands at Medium Priority as there is no direct impact on biodiversity due to UG operations .
Employees	Relevant, always included	Employee engagement in biodiversity risk assessment and conservation initiatives (Plantation etc.) is considered . Every three year we conduct Materiality Analysis and take the inputs of all the key stakeholders and Biodiversity Management also taken into the consideration and based on the complete analysis Biodiversity Management Stands at Medium Priority as there is no direct impact on biodiversity due to UG operations .
Investors	Relevant, always included	Every three year we conduct Materiality Analysis and take the inputs of all the key stakeholders including Investors and Biodiversity Management also taken into the consideration and based on the complete analysis Biodiversity Management Stands at Medium Priority as there is no direct impact on biodiversity due to UG operations .
Local communities	Relevant, always included	During the project development phase we follow Public consultation process by which the concerns of the all stakeholders including local community are ascertained and taken into account in the EIA study and associated risk assessment. Every three year we conduct Materiality Analysis and take the

		inputs of all the key stakeholders and Biodiversity Management also taken into the consideration and based on the complete analysis Biodiversity Management Stands at Medium Priority as there is no direct impact on biodiversity due to UG operations .
Indigenous peoples	Not relevant, explanation provided	None of the location is having indigenous people in and around the vicinity.
NGOs	Relevant, always included	Engage with NGOs to collect their responses, feedback and any concerns relating to biodiversity and ecosystem impacts and their influence to local stakeholders
Regulators	Relevant, always included	During the project development phase we follow Public consultation process by which the concerns of the all stakeholders including regulators are ascertained and taken into account in the EIA study and associated risk assessment. Every three year we conduct Materiality Analysis and take the inputs of all the key stakeholders and Biodiversity Management also taken into the consideration and based on the complete analysis Biodiversity Management Stands at Medium Priority as there is no direct impact on biodiversity due to UG operations .
Suppliers	Relevant, always included	During the project development phase we follow Public consultation process by which the concerns of the all stakeholders including suppliers are ascertained and taken into account in the EIA study and associated risk assessment. Biodiversity Management also taken into the consideration and based on the complete analysis Biodiversity Management Stands at Medium Priority as there is no direct impact on biodiversity due to UG operations . Our code of conduct and supplier code of conduct requires our suppliers to fulfill all the Environment regulations including Biodiversity Act.
Other stakeholders, please specify		

F-MM10.3/F-CO10.3

(F-MM10.3/F-CO10.3) Do you adopt biodiversity action plans to manage your impacts on biodiversity?

Yes

F-MM10.3a/F-CO10.3a

(F-MM10.3a/F-CO10.3a) Describe your criteria for defining which sites are required to produce biodiversity action plans.

Geared with our commitment to protect the environment and biodiversity, we have reviewed all our operations to identify their proximity to International Union for Conservation of Nature (IUCN) areas, important bird areas, and key biodiversity hot spots. We conducted a preliminary analysis of the risks to the existent biodiversity in the vicinity of our operations. We used the Integrated Biodiversity Assessment Tool (IBAT) mapping tool for the screening process and categorised our operations as high/ medium/ low according to the risk category they fell in. The study confirmed that our operations did not pose any threat to their associated biodiversity. We have prioritised the biodiversity management processes based on this initial risk screening to develop a unique and exclusive BMP for all our operations. Detailed biodiversity assessment was carried out by third party to assess the biodiversity in both core and buffer zone of 10 km radius of mines. Currently, all our sites have Biodiversity Management Plans (BMP) in place.

F11 Impacts, risks and opportunities

F-MM11.1/F-CO11.1

(F-MM11.1/F-CO11.1) Have any of your projects caused, or have the potential to cause, significant adverse impact(s) on biodiversity?

	Any projects caused, or have the potential to cause, significant adverse impact(s) on biodiversity?	Comment
Row 1	No	There is no Ecological sensitive area like Protected Areas, National Parks ,, Wildlife Sanctuaries, Bio Sphere Reserves, Wild Life corridors etc. are situated in core/ buffer zone (10 km area) of any of the operating site.

F-MM11.2/F-CO11.2

(F-MM11.2/F-CO11.2) Have you identified any biodiversity risks with the potential to have a substantive financial or strategic impact on your business?

No

F-MM11.2a/F-CO11.2a

(F-MM11.2a/F-CO11.2a) How does your organization define substantive impact on your business?

Substantive financial impact to us would be a disruption in our primary operations that can result in a closure of operation, less production at our facilities which would therefore result in a loss of revenue. To add to this, substantive financial impact would also be any reason due to which very high additional costs have to be incurred.

F-MM11.3/F-CO11.3

(F-MM11.3/F-CO11.3) Have you identified any biodiversity-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

F-MM11.3a/F-CO11.3a

(F-MM11.3a/F-CO11.3a) For your disclosed mining projects, provide details of the identified opportunities with the potential to have a substantive financial or strategic impact on your business.

Type of opportunity

Reputational and markets

Primary biodiversity-related opportunity

Positive reputational value

Where does the opportunity occur?

Company-wide

Mining project ID

Estimated timeframe for realization

4-6 years

Company specific description & strategy to realize opportunity

Although there is no direct impact of identified opportunities with the potential to have a substantive financial or strategic impact on our business, however we see biodiversity conservation as important tool to maintain the reputation of the company and thus social licence to operate . We are working on schedule -1 conservation plan in consultation with government and local community , creating awareness in community on biodiversity conservation and protection, taking up various project to enhance the biodiversity of in and around our operating sites. All these are helping us in creating positive image among the stakeholders . This is also helping us in getting top 5 ranking in DJSI in metal and mining sector and other national recognitions

F12 Governance

F-MM12.1/F-CO12.1

(F-MM12.1/F-CO12.1) Is there board-level oversight of biodiversity-related issues within your organization?

Yes

F-MM12.1a/F-CO12.1a

(F-MM12.1a/F-CO12.1a) Identify the position(s) of the individual(s) (do not include any names) on the board with responsibility for biodiversity-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	The Biodiversity Management policy is approved by our CEO. At HZL we believe that sustainability should be embedded in our business decisions and is therefore, overseen at the board level. Group sustainability committee of Vedanta provides the overall guidance on sustainability. At HZL level, Sustainability Business Management Group, headed by HZL's CEO (Board member), provides overall guidance on the water and other issues which are identified as key ESG issues. These are reviewed by unit heads and the most critical issues are presented in the board meetings held quarterly. Our CEO had outlined our sustainability goals for 2025 and taken the target 'Protect and Enhance Biodiversity throughout the life cycle' . We are a member of the IUCN Leader for Nature (LfN) India initiative and are committed to enhancing and restoring biodiversity. We are working closely with the LfN team to organise different awareness-raising training programmes for our employees.

F-MM12.1b/F-CO12.1b

(F-MM12.1b/F-CO12.1b) Provide further details on the board's oversight of biodiversity-related issues.

	Frequency that biodiversity-related issues are a scheduled agenda item	Governance mechanisms into which biodiversity-related issues are integrated	Please explain
Row 1	Sporadic - as important matters arise	Monitoring implementation and performance Overseeing major capital expenditures Reviewing and guiding business plans Reviewing and guiding corporate responsibility strategy Reviewing and guiding risk management policies Reviewing and guiding strategy	Board meetings are being conducted as per guidelines of SEBI and any material event in accordance with listing agreement is discussed during the meeting. As and when needed board provides guidance on Biodiversity related matters and mitigation measures. There is review of Biodiversity performance "the status of biodiversity management plan , action plans, regulatory updates, etc. by ExCO members.

		Setting performance objectives	

F-MM12.2/F-CO12.2

(F-MM12.2/F-CO12.2) Provide the highest management-level position(s) or committee(s) with responsibility for biodiversity-related issues (do not include the names of individuals)

Name of the position(s) and/or committee(s)

Business unit manager

Responsibility

Both assessing and managing biodiversity-related risks and opportunities

Frequency of reporting to the board on biodiversity-related issues

As important matters arise

Please explain

Business unit heads are responsible for execution of the different environmental management projects to conserve the biodiversity and review of Biodiversity performance “the status of biodiversity management plan , action plans, regulatory updates, etc .

Name of the position(s) and/or committee(s)

Environment/Sustainability manager

Responsibility

Both assessing and managing biodiversity-related risks and opportunities

Frequency of reporting to the board on biodiversity-related issues

As important matters arise

Please explain

Environment manager at units are always involved in the biodiversity projects that were initiated by the different operations which are recommended in Biodiversity Management Plan. They are involved actively in EIA studies and associated Biodiversity assessment. The information of the projects are discussed on an ad hoc basis at the Quarterly board meetings.

Name of the position(s) and/or committee(s)

Chief Executive Officer (CEO)

Responsibility

Both assessing and managing biodiversity-related risks and opportunities

Frequency of reporting to the board on biodiversity-related issues

As important matters arise

Please explain

The Biodiversity Management policy is approved by our CEO. At HZL we believe that sustainability should be embedded in our business decisions and is therefore, overseen at the board level. Group sustainability committee of Vedanta provides the overall guidance on sustainability. At HZL level, Sustainability Business Management Group, headed by HZL's CEO (Board member), provides overall guidance on the water and other issues which are identified as key ESG issues. These are reviewed by unit heads and the most critical issues are presented in the board meetings held quarterly. Our CEO had outlined our sustainability goals for 2025 and taken the target 'Protect and Enhance Biodiversity throughout the life cycle' . We are a member of the IUCN Leader for Nature (LfN) India initiative and are committed to enhancing and restoring biodiversity. We are working closely with the LfN team to organise different awareness-raising training programmes for our employees.

F-MM12.3/F-CO12.3

(F-MM12.3/F-CO12.3) Do you provide incentives to C-suite employees or board members for the management of biodiversity-related issues?

	Are there incentives to C-suite employees or board members?	Comment
Row 1	Yes	We follows Vedanta Sustainability Framework and all its policies, technical and management standards to make our business more sustainable and comply with them. Every year all units undergo third party assessment - Vedanta Sustainability Assurance programme (which includes assessment of Biodiversity performance and practices as well) and Vedanta Sustainability Assurance Programme (VSAP) scores are linked with KPIs and performance bonus of the senior leadership and all employees.

F-MM12.3a/F-CO12.3a

(F-MM12.3a/F-CO12.3a) What incentives are provided to C-Suite employees or board members for the management of biodiversity-related issues (do not include the names of individuals)?

	Role entitled to incentive	Indicator for incentivized performance	Please explain
Monetary reward	Corporate executive team	Other, please specify VSAP Scores	We follows Vedanta Sustainability Framework and all its policies, technical and management standards to make our business more sustainable and comply

	Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Procurement Officer (CPO) Chief Risk Officer (CRO) Chief Sustainability Officer (CSO) Chief Purchasing Officer (CPO)		with them. Every year all units undergo third party assessment - Vedanta Sustainability Assurance programme (which includes assessment of Biodiversity as well) and Vedanta Sustainability Assurance Programme (VSAP) scores are linked with KPIs and performance bonus of the senior leadership and all employees.
Non-monetary reward	Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Procurement Officer (CPO) Chief Risk Officer (CRO) Chief Sustainability Officer (CSO) Chief Purchasing Officer (CPO)	No indicator for incentivized performance	At the subsequent board meetings progress under each of the issue is discussed and for good performance/ targets achievements, the aspect owners are recognized with non-monetary awards such as recognition in external forums, giving Advancement Opportunity –work on more meaningful and challenging projects etc.

F-MM12.4/F-CO12.4

(F-MM12.4/F-CO12.4) Does your organization have a policy that includes biodiversity-related issues?

Yes, we have a documented biodiversity policy that is publicly available

F-MM12.4a/F-CO12.4a

(F-MM12.4a/F-CO12.4a) Select the options that best describe the scope and content of your policy.

Biodiversity Policy.JPG

	Format	Content	Please explain
Row 1	Stand-alone biodiversity policy	Recognition of the overall importance of natural habitats Recognition of potential business impact on natural habitats Commitments beyond regulatory compliance Commitment to transparency Commitment to stakeholder awareness and capacity-building	Protecting and enhancing biodiversity is an integral part of Hindustan Zinc's commitment to sustainable development. We are conscious of the potential impacts and dependencies of our business on biodiversity. Integrating the need for biodiversity conservation into operational decision making processes and taking all necessary measures to minimize impacts, is a Commitment across the company. We are conscious that biodiversity is a complex phenomenon that needs to be identified, understood and valued from a biological and societal (i.e. in terms of ecosystem services) perspective. We believe that our performance on biodiversity conservation will create long term sustainability for our business and the society. The Policy is being reviewed regularly and approved by Our CEO. Policy coveres the committment towards raising awareness, Comply with legal regulations for conserving Biodiversity, Identify and assess biodiversity status, value and its impacts, due to resettlement, loss of cultural heritage, loss of protected land and endangered species before the start and over the project lifecycle, Consider the impacts on ecosystem services in business decisions and also to work towards the conservation of species in and around operations. Biodiversity policy is available on https://www.hzlindia.com/wp-content/uploads/Biodiversity-Policy-English.pdf Policy is reviewed every 3 years and as and when there is any change in the regulatory scenario in Biodiversity management

F-MM12.5/F-CO12.5

(F-MM12.5/F-CO12.5) Has your organization made any public commitment(s) to reduce or avoid impacts on biodiversity?

Yes

Integrated -report-2019-20.pdf

F-MM12.5a/F-CO12.5a

(F-MM12.5a/F-CO12.5a) Provide details on your public commitment(s), including the description of specific criteria, coverage, and timeframe.

Commitment

Adoption of the mitigation hierarchy approach

Coverage

Company-wide

% of total production covered by commitment

100%

Commitment timeframe

2021-2025

Please explain

We have taken a holistic view in setting our sustainability goals 2025 and over the next five years, we will focus on expanding the work towards creating positive changes. We do not view our goals as independent targets, but rather as a collective scorecard that requires tangible progress across different functions.
Biodiversity Goal 2025- 'PROTECT AND ENHANCE BIODIVERSITY THROUGHOUT THE LIFE CYCLE'

F13 Business strategy

F-MM13.1/F-CO13.1

(F-MM13.1/F-CO13.1) Are biodiversity issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are biodiversity-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, biodiversity-related issues are integrated	5-10	Biodiversity is major consideration in selecting the new project and Biodiversity risk assessment and action plan to mitigate risk to Biodiversity are taken into consideration since the conceptualization of any project. During project permitting, detailed Environment and Social Impact Assessments (ESIAs) are conducted to support approval of the project by regulators and support for the project from stakeholders. We identify and understand the critical biodiversity areas and develop an action plan to mitigate the risks associated with new project activities on the region's biodiversity. Even at the closure stage we work towards restoring the land as close as possible to its natural state.

			Biodiversity risks are being identified as part of ESIA and IBAT assessment. Recently we engaged with IUCN for their Leaders for nature Programme and arranged in company sessions to enhance the awareness on Biodiversity to senior management and all employees. With the long term focus on preserving biodiversity very recently we adopted Sustainability goals 2025 for protecting and enhancing biodiversity throughout the life cycle. The two major strategy to meet the SD goal 2025 - Creating awareness about biodiversity among employees and nearby communities -Biodiversity assessment, implementing biodiversity protection and conservation initiatives across the locations - Implementing action plans and stay committed to Sustainable Development Goals 2030 (SDGs) Vedanta Sustainability Assurance programme is also assuring the biodiversity practices at all locations and also VSAP scores are being linked to performance pay scheme.
Strategy for long-term objectives	Yes, biodiversity-related issues are integrated	5-10	Biodiversity is major consideration in selecting the new project. Biodiversity risks are being identified as part of ESIA and IBAT assessment. Recently we engaged with IUCN for their Leaders for nature Programme and arranged in company sessions to enhance the awareness on Biodiversity to senior management and all employees. With the long term focus on preserving biodiversity very recently we adopted Sustainability goals 2025 for protecting and enhancing biodiversity throughout the life cycle. The two major strategy to meet the SD goal 2025 -Creating awareness about biodiversity among employees and nearby communities -Biodiversity assessment, implementing biodiversity protection and conservation initiatives across the locations -Implementing action plans and stay committed to Sustainable Development Goals 2030 (SDGs) Vedanta Sustainability Assurance programme is also assuring the biodiversity practices at all locations and also VSAP scores are being linked to performance pay scheme.

Financial planning	Yes, biodiversity-related issues are integrated	5-10	Biodiversity is major consideration in selecting the new project and Biodiversity risk assessment and action plan to mitigate risk to Biodiversity are taken into consideration since the conceptualization and financial planning of any project. Biodiversity risks are being identified as part of ESIA and IBAT assessment. Recently we engaged with IUCN for their Leaders for nature Programme and arranged in company sessions to enhance the awareness on Biodiversity to senior management and all employees. With the long term focus on preserving biodiversity very recently we adopted Sustainability goals 2025 for protecting and enhancing biodiversity throughout the life cycle. The two major strategy to meet the SD goal 2025 . Creating awareness about biodiversity among employees and nearby communities • Biodiversity assessment, implementing biodiversity protection and conservation initiatives across the locations Vedanta Sustainability Assurance programme is also assuring the biodiversity practices at all locations and also VSAP scores are being linked to performance pay scheme.

F14 Implementation

F-MM14.1/F-CO14.1

(F-MM14.1/F-CO14.1) Have you specified any measurable and time-bound targets related to your commitment(s) to reduce or avoid impacts on biodiversity?

Yes

F-MM14.1a/F-CO14.1a

(F-MM14.1a/F-CO14.1a) Provide details of your target(s) related to your commitment(s) to reduce or avoid impacts on biodiversity, and progress made.

Target reference number

Target 1

Target label

We have taken a holistic view in setting our sustainability goals 2025 and over the next five years, we will focus on expanding the work towards creating positive changes. We

do not view our goals as independent targets, but rather as a collective scorecard that requires tangible progress across different functions.
Biodiversity Goal 2025- 'PROTECT AND ENHANCE BIODIVERSITY THROUGHOUT THE LIFE CYCLE'

Base year

2020

Target year

2025

% of target achieved

Please explain

Biodiversity Goal 2025- 'PROTECT AND ENHANCE BIODIVERSITY THROUGHOUT THE LIFE CYCLE'- Continuous process

F-MM14.2/F-CO14.2

(F-MM14.2/F-CO14.2) Provide details on mining projects that are required to produce Biodiversity Action Plans.

Row 1

Number of mining projects required to produce a biodiversity action plan

5

% of mining projects required to produce a biodiversity action plan that have one in place

100

Format

Stand-alone document
Part of general Environmental Management System

Frequency biodiversity action plans are reviewed

Regularly

Please explain

We have an exclusive policy on Biodiversity that focuses on conserving species of high biodiversity value and mitigating risk to high priority conservation areas in the vicinity of our operations. We used the Integrated Biodiversity Assessment Tool (IBAT) mapping tool for the screening process and categorized our operations as high/medium/low according to the risk category they fall in.
All our sites have Biodiversity Management Plans (BMP) in place. We have implemented extensive Green belt (1.8 million trees) in and around our operations. Nurseries for various endemic and medicinal (Ayurvedic) plants have been set up at our Head office, Rampura Agucha and Kayad Mine & well-designed conservation plan to preserve the national bird Pavocristatus (Indian Peafowl), at Kayad mines as well as we

created butterfly park at our Pantnagar Metal Plant (PMP) and Head office. We are also a signatory of the IBBI (Indian Biodiversity Business Initiative) and IUCN- Leaders for nature programme, Tree inventorization is being carried out at Head office, Rampura Agucha and Chanderiya and results suggested that enumerated 2,94,528 trees could contribute to 3283 Kg of carbon sequestration. To create net positive impact on biodiversity we are taking initiatives beyond the boundary also and partnering with UIT Udaipur for regeneration of two hills Ratnagiri and Kalimagri, supported Forest department in development of Sajjangarh Biological Park, yearly distributing plants to nearby villages. Mass plantation was carried out in a Zawar forest area of 75 Ha (23,500 plants) through Van Suraksha Evam Prabandh Samiti.

F-MM14.3/F-CO14.3

(F-MM14.3/F-CO14.3) Has your organization adopted avoidance and/or minimization as strategies to prevent or mitigate significant adverse impacts on biodiversity?

Yes

F-MM14.3a/F-CO14.3a

(F-MM14.3a/F-CO14.3a) Provide relevant company-specific examples of your implementation of avoidance and minimization actions to manage adverse impacts on biodiversity.

Mining project ID

Project 1

Approach

Minimization

Type of measure

Physical controls

Description

At Rampura Agucha we conducted the Biodiversity assessment and prepared Biodiversity Action plan to enhance and protect the Biodiversity. We recognized the importance of protecting local ecosystems and biodiversity and maintenance of ecosystem functions by creating forests as carbon sinks and conserving the endangered species.

HZL has developed in-house nursery at Rampura Agucha in 1200 sq. area. The nursery have both exotic and medicinal (ayurvedic) plant species including Commiphora Wightii, Butea monosperma, Terminalia arjuna, Colophospermum mopane, Drumstick , Hardwickia, Acacia, Simmondsia chinensis, Spirogyra, Nyctanthes arbor-tristis, Tecomella

undulata, Jatropha curcas. This Nursery is the source of~ 10,000 saplings every year and work as a model initiative to revive endangered and threatened floral species of

Rajasthan. The saplings are being provided to nearby communities as well to spread the area of endangered species .

Mining project ID

Project 5

Approach

Minimization

Type of measure

Physical controls

Description

At Kayad mines also we conducted the Biodiversity assessment and taken following three key projects to enhance the Biodiversity of the area
1. HZL has developed in-house nurseries at their Rampura Agucha and Kayad Mine sites in Rajasthan. These nurseries also house plant species which are of importance for peacock conservation, such as Ziziphusmauritiana, Aeglemarmalos, Sygygiumcumini and Tamarindusindica. At Kayad Mine nursery ~500 numbers of saplings of endangered species Commiphora Wightilsyn:
C. mukul and 2100 numbers of native species like neem, Karanj, Sheesum were planted and distributed .
2. Another attempt to ensure a good green cover has been to conserve and preserve the topsoil. About 9000 cum of topsoil was
conserved after excavation of 7306 sq.m area at the Kayad Mine. This topsoil was partly used for plantation and the remaining was used for developing lawns in the mining area.
3. Peacock Conservation Park- . The Peacock Conservation Plan, implemented by Hindustan Zinc, in consultation with the State Forest Department in Kayad mine of Rajasthan, is an ongoing process of developing and protecting an environment that ensures protection from human interference. The fortified land is strategically planted with native species especially conducive to peacock habitat and provided with water accompanied by feeding area with provision of attracting Peacocks but also to simultaneously nurture a wider range of fauna including insects and reptiles
which the peacocks feed on. Along with this, various signages with slogans in local languages have been put up around the mining site to create awareness among the local community about peacock Conservation.
4. Mass Plantation of 60, 000 saplings during the year at kayad Mines. We planted 4,000+ saplings within the mine lease area
and 58,000+ saplings outside the area, around government buildings and in private land. Fruit and shade-giving trees were planted based on soil type and respective owner's demand. The landowners pledged the written oath to help these plants grow in their own land by timely watering, watching and warding and taking care of these plants.

Mining project ID

Project 3

Approach

Avoidance

Type of measure

Other avoidance measure, please specify

Using Municipal STP treated water to reduce dependency of the fresh water and conserving the aquatic biodiversity

Description

~80% of the water requirement at Sindesar Khurd mines is being addressed by use of Udaipur STP treated water . We established 45 MLD Udaipur STP to treat the sewage of Udaipur city (sewage is collected in Ahar river) and using the treated water at our mines and smelters. We are also releasing some quantum of treated water to the river so as to maintain the ecological balance of the river and river flow. This is also helping in reducing the eutrophication in the river and maintaining the ecological balance of the river.

Another 15 MLD STP in progress and we will be discharging the entire treated water in river so as to maintain the aquatic life balance in river. Thus through this project we are maintaining the Biodiversity of rivers around us.

Mining project ID

Project 4

Approach

Avoidance

Type of measure

Project design

Description

INDIA's FIRST DRY TAILINGS DISPOSAL SYSTEM AT ZAWAR MINES.

Installation and commissioning of dry tailing plant to: • Ensure higher water recovery • Eliminate water losses through seepage

and evaporation. Virtually stop any probability of groundwater contamination through seepage • Improve safety significantly with the risk of catastrophic dam failure.

Positive Outcomes

• Recirculation of 90%+ of the process water

• Elimination of the risks of catastrophic tailings dam failure

• Safe stacking of tailings cakes even in areas of high seismic activity

• Reduction of risk of groundwater contamination through seepage

• Reduction of storage footprint by 50%

• Enabling fast rehabilitation when approaching mine closure

It is now possible to extract excess water (recirculation for mill operation) from tailings

by the introduction of this filtration plant to
transform solid fractions into cake containing only 16% moisture.

This project is unique initiative in terms of water conservation and Biodiversity conservation.

Mining project ID

Project 3

Approach

Minimization

Type of measure

Physical controls

Description

We endeavour to minimise the impact of upscaled mining activities, maintaining pollutant levels within permissible limits in
the surrounding environment and conserving wildlife populations in their habitats. In sync with this vision, our Sindesar Khurd Mine conducted a study and made conservation plans for 6 schedules -1 species (3 reptiles, 2 avifauna, 1 mammal species).
These avifaunal, reptilian and mammalian species and their corresponding habitats require stringent protection and management, for
which we drew up a comprehensive Wildlife Conservation Plan. The species-specific plans primarily focus on habitat conservation and
generating awareness on biodiversity, its importance, activities that threaten them and conservation actions among the industrial staff and the buffer area population.

Mining project ID

Project 1

Approach

Minimization

Type of measure

Operational controls

Description

Use of Mine tailing waste in Back filling
Mining is a huge operation that leaves a lot of residue after the process. Tailings are waste that is generated after the extraction of Lead-Zinc Concentrate from the ore. Managing these tailings has never been an easy job. Tailings are used to dump in tailing ponds.
But now at all the mines we are doing the backfilling of mines using tailings through

pastfill plants. This technology ensured fast filling and practically no bleeding water in the stopes. The other benefits of Paste Fill technology have been water conservation, better Stope stability and surface integrity in mines. Substantial amount of tailings is being used for paste hence there is reduction in waste disposal to land and thus we are reducing the further requirement of land for tailing disposal and loss to biodiversity around us.

F-MM14.4/F-CO14.4

(F-MM14.4/F-CO14.4) Have significant impacts on biodiversity been mitigated through restoration?

	Have significant impacts on biodiversity been mitigated through restoration?	Comment
Row 1	No	There is no Ecological sensitive area like Protected Areas, National Parks ,, Wildlife Sanctuaries, Bio Sphere Reserves, Wild Life corridors etc. are situated in core/ buffer zone (10 km area) of any of the operating site.

F-MM14.5/F-CO14.5

(F-MM14.5/F-CO14.5) Have significant residual impacts of your projects been compensated through biodiversity offsets?

	Have residual impacts been compensated through biodiversity offsets?	Comment
Row 1	No	No offsets have been applied for.

F-MM14.6/F-CO14.6

(F-MM14.6/F-CO14.6) Is your organization implementing or supporting additional conservation actions?

	Implementing or supporting additional conservation actions?	Comment
Row 1	Yes	

F-MM14.6a/F-MCO14.6a

(F-MM14.6a/F-CO14.6a) Provide details on the main additional conservation actions you are implementing or supporting.

Project title

Extensive Plantation in and around our operating sites

Project theme

Forest conservation

Country/Area

India

Location

In the area of influence of mining project

Primary motivation

Other, please specify

Legal and Voluntary both

Timeframe

Undefined

Start year

1966

End year

Description of project

Most of the Hindustan Zinc resources and manufacturing facilities being located in Rajasthan, makes it prudent for the company to walk the extra mile in Bio-diversity Management and Water Resource Management, in addition to all other areas of Sustainable
Governance. Extensive plantation is being carried out every year across all the operating sites and till now more than 1.8 million plants have been planted. Apart from the plantation, various Biodiversity conservation projects across all the operating sites have been undertaken which are resulting in upliftment of regional biodiversity index (both flora & fauna) and also improving life of the local
people. Both industrial establishments and residential settlements for the company employees are designed with dense
plantation fabric of native trees with extensive branching, attracting rare bird species including Shikra, Red Necked
falcon, Saras crane, White Eyed Buzzard, Black Winged Kite among many others.
. Also, agreat emphasis has oeen puton ensuring both heterogeneity and richness of natural elements - Grass, flowering herbs, shrubs and dimbers, variety of tree species, green islands, and rows of mixed vegetation along with climber-canopies. Preservation of existing trees and vegetation further add to habitat heterogeneity for birds and butterflies and enhanced visual appeal. In some of the
places the vegetation has become very censeand gives the feeling of close-canopied forests. Biodiversity assessment
studies for all operating sites have been conducted and accordinaly Biodiversity Management Plans (BMPS) were prepared at all sites.

During FY 2016, we partnered with Udaipur Urban Improvement Trust for regeneration of two hills in the city- Ratnagiri and Kalimagri

Description of outcome to date

Extensive plantation is being carried out every year across all the operating sites and till now more than 1.8 million plants have been planted.

F-MM14.7/F-CO14.7

(F-MM14.7/F-CO14.7) Do your mining projects have closure plans in place?

	Are there closure plans in place?	Comment
Row 1	Yes	

F-MM14.7a/F-CO14.7a

(F-MM14.7a/F-CO14.7a) Please provide details on mines with closure plans.

Row 1

Percentage of mines with closure plans

100

Percentage of closure plans that take biodiversity aspects into consideration

100

Is there a financial provision for mine closure expenditure?

Yes, for all mines

Frequency closure plans are reviewed

Regularly (all projects)

Please explain

HZL is required to follow the requirements listed in Vedanta Technical Standard on Site Closure, with regards the mechanisms for
decommissioning and site closure. HZL is required to ensure the mechanisms for undertaking decommissioning and site closure
meet the requirements of international standards (e.g. IFC development/performance standards, IFC EHS Guidelines and ICMM
principles) and impact assessment and consultation processes where these apply. Requirements include-a) Meet Vedanta Group sustainability policies and standards. b) Manage all their operations throughout their
full lifecycle in a manner that ensures the optimisation of post closure outcomes across the environmental, social and economic
needs of sustainable development. c) Protect and enhance the reputation of Vedanta as a responsible company and preserve
shareholder value d) Comply with relevant regulatory requirements e) Identify and

mitigate environmental and socio-economic
impacts f) Protect the health, safety and welfare of employees and the general public g) Return sites to a state comparable to conditions before operations commenced or otherwise to a state acceptable to society.
h) Where possible promote a sustainable use for the site after closure, which leaves a positive legacy for both the local communities
and the environment. This should be determined through comprehensive multi-stakeholder engagement. i) Where possible
operations should implement progressive closure to demonstrate the approach being adopted. This has the benefit of availing of
the skill sets available during the operational phase and to ensuring that the site risk is as low as possible prior to closure.

All our mines have progressive site closure plans .

F-MM14.8/F-CO14.8

(F-MM14.8/F-CO14.8) Can you disclose the area rehabilitated (in total and in the reporting year) for each of your mining projects?

	Disclosing area rehabilitated (in total and in the reporting year)?	Comment
Row 1	Yes	

F-MM14.8a/F-CO14.8a

(F-MM14.8a/F-CO14.8a) Provide details on the area rehabilitated (total/reporting year) for each of your mining projects, including post-mining land use.

Mining project ID

Project 1

Total area rehabilitated (hectares)

84

Area rehabilitated in the reporting year (hectares)

20

Describe post-mining land use

84 hectare area - green belt is developed on matured waste dump at the site. Used GeoTaxtile for bench stablization.

Post mining land use is well explained in our Mining Plan which is as below
• All mined out stope voids will be back filled.
• Mine waste will be utilized for filling mine voids.
• All the equipment will be removed from surface and below ground.
• All mine entries will be sealed and properly fenced off.
• Mine infrastructure will be removed.

• Area will be restored to natural ground profile including drainage as practicable & re-vegetated.
• Any potential area of soil contamination will be checked and decontaminated by excavating the contaminated portion and replacing with fresh soil.
• Plantation done will be maintained.
• Post mine land use has been detailed in earlier land use slide.
• Necessary approvals will be taken from statutory authorities for Progressive & Final closure Plan.
• After reclamation, surveillance & monitoring will be done.

Mining project ID

Project 2

Total area rehabilitated (hectares)

0

Area rehabilitated in the reporting year (hectares)

0

Describe post-mining land use

Post mining land use is well explained in our Mining Plan which is as below
• All mined out stope voids will be back filled.
• Mine waste will be utilized for filling mine voids.
• All the equipment will be removed from surface and below ground.
• All mine entries will be sealed and properly fenced off.
• Mine infrastructure will be removed.
• Area will be restored to natural ground profile including drainage as practicable & re-vegetated.
• Any potential area of soil contamination will be checked and decontaminated by excavating the contaminated portion and replacing with fresh soil.
• Plantation done will be maintained.
• Post mine land use has been detailed in earlier land use slide.
• Necessary approvals will be taken from statutory authorities for Progressive & Final closure Plan.
• After reclamation, surveillance & monitoring will be done.

Mining project ID

Project 3

Total area rehabilitated (hectares)

7.11

Area rehabilitated in the reporting year (hectares)

0

Describe post-mining land use

7.11 hectare area rehabilitated .

Post mining land use is well explained in our Mining Plan which is as below
• All mined out stope voids will be back filled.
• Mine waste will be utilized for filling mine voids.
• All the equipment will be removed from surface and below ground.
• All mine entries will be sealed and properly fenced off.
• Mine infrastructure will be removed.
• Area will be restored to natural ground profile including drainage as practicable & re-vegetated.
• Any potential area of soil contamination will be checked and decontaminated by excavating the contaminated portion and replacing with fresh soil.
• Plantation done will be maintained.
• Post mine land use has been detailed in earlier land use slide.
• Necessary approvals will be taken from statutory authorities for Progressive & Final closure Plan.
• After reclamation, surveillance & monitoring will be done.

Mining project ID

Project 4

Total area rehabilitated (hectares)

45.07

Area rehabilitated in the reporting year (hectares)

0

Describe post-mining land use

10.07 hectare area rehabilitated - converted Waste dump site in football Stadium and Rock Garden, 35 hectare area rehabilitated - reclamation of old tailing dam.

Post mining land use is well explained in our Mining Plan which is as below
• All mined out stope voids will be back filled.
• Mine waste will be utilized for filling mine voids.
• All the equipment will be removed from surface and below ground.
• All mine entries will be sealed and properly fenced off.
• Mine infrastructure will be removed.
• Area will be restored to natural ground profile including drainage as practicable & re-vegetated.
• Any potential area of soil contamination will be checked and decontaminated by excavating the contaminated portion and replacing with fresh soil.
• Plantation done will be maintained.
• Post mine land use has been detailed in earlier land use slide.
• Necessary approvals will be taken from statutory authorities for Progressive & Final

closure Plan.
• After reclamation, surveillance & monitoring will be done.

Mining project ID

Project 5

Total area rehabilitated (hectares)

0

Area rehabilitated in the reporting year (hectares)

0

Describe post-mining land use

Post mining land use is well explained in our Mining Plan which is as below
• All mined out stope voids will be back filled.
• Mine waste will be utilized for filling mine voids.
• All the equipment will be removed from surface and below ground.
• All mine entries will be sealed and properly fenced off.
• Mine infrastructure will be removed.
• Area will be restored to natural ground profile including drainage as practicable & re-vegetated.
• Any potential area of soil contamination will be checked and decontaminated by excavating the contaminated portion and replacing with fresh soil.
• Plantation done will be maintained.
• Post mine land use has been detailed in earlier land use slide.
• Necessary approvals will be taken from statutory authorities for Progressive & Final closure Plan.
• After reclamation, surveillance & monitoring will be done.

F15 Engagement

F-MM15.1/F-CO15.1

(F-MM15.1/F-CO15.1) Do you participate in or endorse any of the following global initiatives?

	Participate or endorse?	Comment
Extractive Industries Transparency Initiative	No	
UN Global Compact	Yes	Member to UNGC and implementing all the principles.
Natural Capital Coalition	No	
Business and Biodiversity Pledge	No	

New York Declaration on Forests	No	

F-MM15.2/F-CO15.2

(F-MM15.2/F-CO15.2) Do you participate in or support industry-led and/or standards-setting initiatives and organizations promoting sustainability in the mining sector?

	Participating or supporting industry-led and/or standards-setting initiatives?	Comment
Row 1	Yes	

F-MM15.2a/F-CO15.2a

(F-MM15.2a/F-CO15.2a) Indicate the initiatives and/or organizations you took part in or supported during the reporting year.

Activities	Initiatives	Comment
Standard-setting initiative/organization	Other standard-setting initiative, please specify IUCN- Leaders for nature Programme	As part of our commitment towards biodiversity conservation, we are a member to IUCN 'Leader for Nature India' and have arranged internal sessions on biodiversity awareness. The event aimed to emphasise the importance of biodiversity and the extent to which anthropogenic activities causes it to decline. Some concerns around Biodiversity Management Plan (BMP), rehabilitation, global biodiversity standards and our policy and regulations were also discussed during the session. The environment heads as well as team and plant team members engaged in the preparation of EIA/EMP reports. Additionally, the plantation or horticulture partner also attended the training programme. Hindustan Zinc, as a member of the IUCN LfN network, is committed to enhancing and restoring biodiversity and we are working closely with the LfN team to organise different awareness and training programmes for our employees.
Standard-setting initiative/organization	Other standard-setting initiative, please specify IBBI- India Business & Biodiversity Initiative	Partnered with IBBI for Natural Capital Action Plan implementation at RAM as the site for pilot project

F-MM15.3/F-CO15.3

(F-MM15.3/F-CO15.3) Do you collaborate or engage in partnerships with non-governmental organizations to promote the implementation of your biodiversity-related goals and commitments?

	Collaborating or partnering with non-governmental organizations?	Comment
Row 1	Yes	We engage with the communities and NGOs like BAIF etc. Samadhan is the Company's flagship program for on-farm sustainable livelihood, reaching out to 13,835 farmers through agriculture interventions and 11,507 families through livestock interventions till date. We engage with NGOs for reserch and implementation of programms to improve in agriculture yield, reducing water requirement , raising awareness on water harvesting technologies like drip irrigations, and biodiversity improvement etc.

F-MM15.3a/F-CO15.3a

(F-MM15.3a/F-CO15.3a) Provide details on main collaborations and/or partnerships with non-governmental organizations that were active during the reporting year.

Organization

BAIF Development Research Foundation

Scope of collaboration

Company-wide

Mining project ID

Areas of collaborations

Other, please specify

Improvement in Agricultural yield

Describe the nature of the collaboration

We engage with the communities and NGOs like BAIF . Samadhan is the Company's flagship program for on-farm sustainable livelihood, reaching out to 13,835 farmers through agriculture interventions and 11,507 families through livestock interventions till date. We engage with NGOs for reserch and implementation of programms to improve in agriculture yield, reducing water requirement , raising awareness on water harvesting technologies like drip irrigations, and biodiversity improvement etc.

Duration (until)

No specified timeframe

F-MM15.5/F-CO15.5

(F-MM15.5/F-CO15.5) Do you engage with other stakeholders to further the implementation of your policies concerning biodiversity?

Yes

F-MM15.5a/F-CO15.5a

(F-MM15.5a/F-CO15.5a) Provide relevant examples of other biodiversity-related engagement activities that happened during the reporting year.

Activities

Engaging with local communities

Mining project ID

Project 3

Please explain

Schedule-1 Conservation plan at SKM in discussion with local adminstration and near by community

We endeavour to minimise the impact of upscaled mining activities, maintaining pollutant levels within permissible limits in
the surrounding environment and conserving wildlife populations in their habitats. In sync with this vision, our Sindesar Khurd Mine conducted a study and made conservation plans for 6 schedules -1 species (3 reptiles, 2 avifauna, 1 mammal species).
These avifaunal, reptilian and mammalian species and their corresponding habitats require stringent protection and management, for
which we drew up a comprehensive Wildlife Conservation Plan. The species-specific plans primarily focus on habitat conservation and
generating awareness on biodiversity, its importance, activities that threaten them and conservation actions among the industrial staff and the buffer area population.

F16 Verification

F-MM16.1/F-CO16.1

(F-MM16.1/F-CO16.1) Do you verify any biodiversity-related information reported in your CDP disclosure?

No, we are waiting for more mature verification standards/processes

F17 Signoff

F-FI

(F-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

F17.1

(F17.1) Provide the following information for the person that has signed off (approved) your CDP forests response.

	Job Title	Corresponding job category
Row 1	Chief HSE Officer	Environmental, Health and Safety manager

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Non-public

Please confirm below

I have read and accept the applicable Terms