

BIODIVERSITY RISK ASSEMENT REPORT

of Welspun Living Limited



PLANT
LOCATIONS

- . Anjar
- . Vapi
- . Hyderabad



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1. INTRODUCTION

1.1 About Welspun Living

Welspun Living Limited, part of the globally renowned Welspun Group, stands as a leader in home textiles and flooring solutions, known for its innovative products and commitment to sustainability. The company serves a diverse clientele, including major global retailers and individual consumers, from its cutting-edge manufacturing facilities in Anjar, Vapi, and Chandanvelly near Hyderabad. Sustainability is at the core of Welspun Living's operations, with a strong emphasis on water conservation, energy efficiency, and minimizing environmental impact. The company has implemented various eco-friendly initiatives, such as recycling wastewater, reducing carbon emissions, and transitioning to renewable energy sources. Welspun Living's commitment to responsible growth is reflected in its rank as 16th out of 211 companies in the Sustainalytics ESG risk rating, and its recognition as one of the top 100 sustainable companies in India. With its focus on ESG standards, the company not only enhances its operational efficiency but also ensures that its supply chain partners share the same values of environmental stewardship and social responsibility. This dedication allows Welspun Living to set a benchmark for sustainability in the industry while maintaining a positive impact on the environment and society

Additionally, Welspun Living engages in wildlife conservation initiatives, such as establishing buffer zones around sensitive habitats and collaborating with local environmental organizations to protect endangered species. Community engagement is also a key aspect of their efforts, as they work with local stakeholders, farmers, and tribal communities to promote biodiversity conservation and sustainable land use practices.

1.2 Report Insights

This report provides a comprehensive assessment of biodiversity risks associated with Welspun Living Limited's operations in Anjar, Vapi, and Hyderabad. In this report focus will be to look at the different species living in the vicinity of Welspun plants, how Welspun's function affect the flora and fauna of that region and what mitigation measures Welspun has taken to minimize the risk.

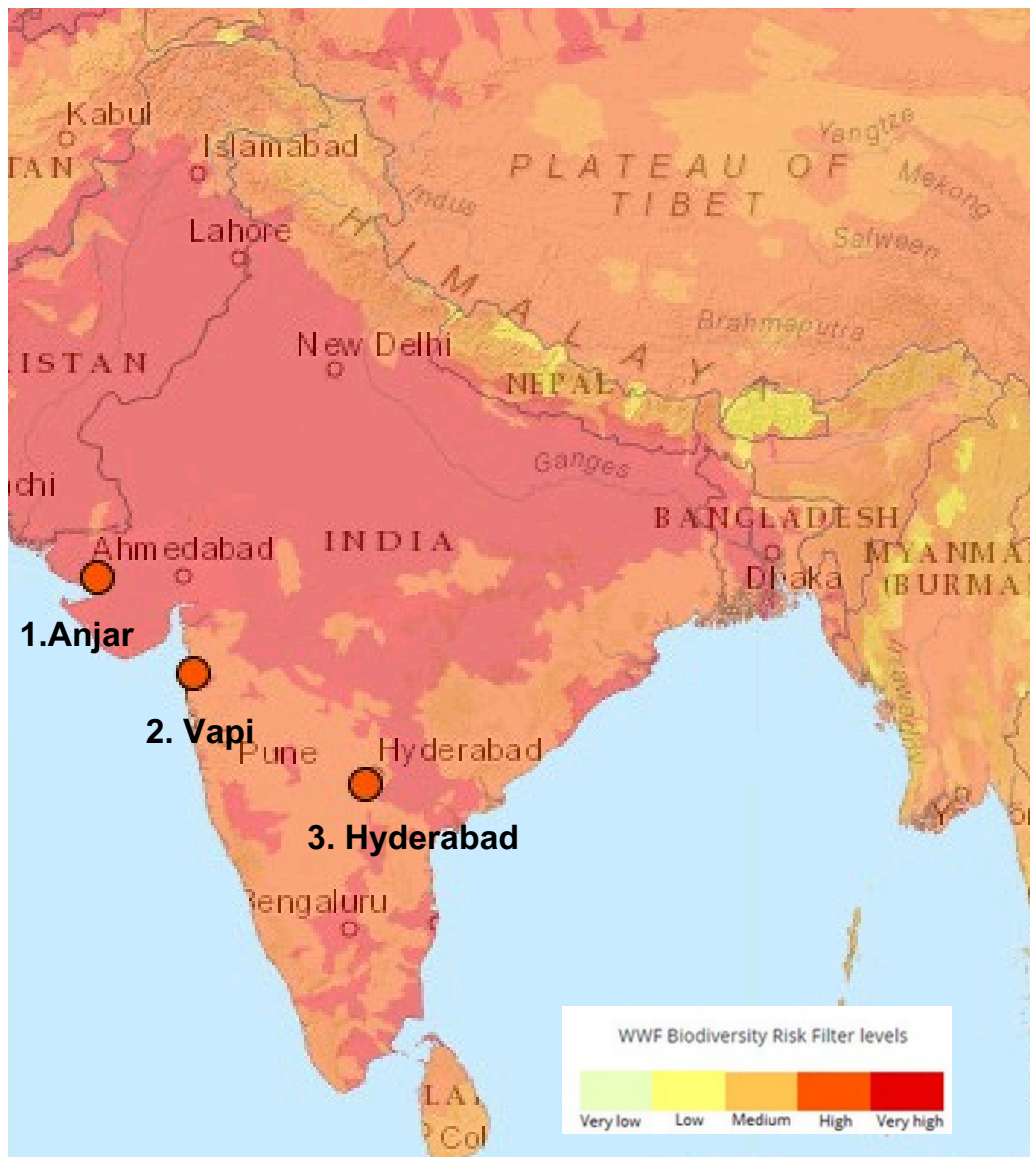
In this report WWF (World Wildlife Risk Filter) data has been accounted to quantify and categorize the bio diversity risk of Anjar, Vapi and Hyderabad Location. Risks are classified in Physical and Reputational risks which are further classified into different parameters which cumulatively account for that risk.

The Risk Scores obtained from WWF are averaged for all 3 locations and gives an overall picture of Bio-Diversity risk associated with Welspun living plants in all 3 Locations.

Welspun believes in Sustainable industrial practices, therefore apart from mitigation measures taken by Welspun for Bio-Diversity risk, Welspun has also used this industrialization as an opportunity to reach to the ground level communities and worked for their welfare, the following report also shines some light on the same.

2. AREA UNDER STUDY

2.1 Project Location



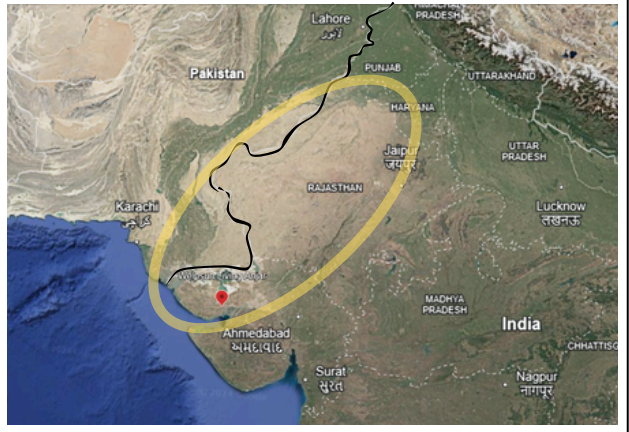
1. Anjar Location: Anjar is located in the Kutch district of Gujarat, characterized by its arid and semi arid climate, with dry landscape and limited water resource

2. Vapi Location: Vapi is situated in the southern part of Gujarat, within the Valsad district. It's an industrial hub with numerous chemical, pharmaceutical, and textile plants, including the Welspun plant.

3. Hyderabad Location: Hyderabad is located in the Deccan Plateau, characterized by semi-arid conditions and a mix of dry deciduous forests and scrublands. It is a rapidly growing urban and industrial center.

2.2 Bio-Diversity Classification

Anjar

Bio geographic zone :	Thar Dessert (marked in yellow)	
State / Union Territory :	Gujarat	
Environmental Characteristics of the area :	Ecosystem consists of thorn forests, shrubs, and sparse vegetation. Rainfall is low and evaporation is high.	

Prominent Flora:



Acacia nilotica (babul tree)

1. *Salvadora persica* (Toothbrush Tree/Miswak)

- A native species known for its medicinal uses, commonly found in arid and semi-arid regions.

2. *Acacia nilotica* (Babul Tree)

- A native thorny tree species important for supporting local biodiversity, thriving in dry climates.

3. *Tecomella undulata* (Rohida)

- A valuable tree species prized for its durable wood and contribution to ecosystem services.



Ziziphus nummularia (Jujube/Desert Ber)

4. *Ziziphus nummularia* (Jujube/Desert Ber)

- A thorny shrub that serves as a food source for local wildlife, typically found in desert and semi-desert environments.

Prominent Fauna:

1. Indian Gazelle (Chinkara)

- A small antelope native to India, known for its agility and ability to thrive in arid landscapes.

2. Indian Peafowl (Peacock)

- The national bird of India, admired for its vibrant plumage and cultural significance across the country.

3. Desert Fox (*Vulpes vulpes pusilla*)

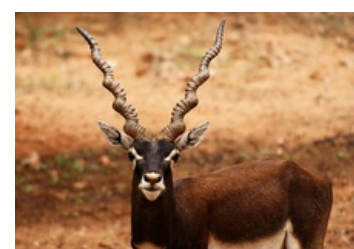
- A key predator in arid ecosystems, adapted to survive in desert and semi-desert environments.

4. Blackbuck (*Antelope cervicapra*)

- A protected antelope species known for its striking appearance and presence in grassland habitats.




Desert Fox (*Vulpes vulpes pusilla*)



Blackbuck (*Antelope cervicapra*)

Vapi

Bio geographic zone :	Western Ghats (marked in yellow)	
State / Union Territory :	Gujarat	
Environmental Characteristics of the area :	Area supports rich forests and abundant wildlife. Humidity is relatively high.	

Prominent Flora:



Sal

1.Mangroves (Various Species)

- A vital coastal ecosystem that provides protection against storms and supports marine biodiversity.

2.Teak (Tectona grandis)

- A highly valuable hardwood tree known for its durability and widespread use in furniture and construction.

3.Sal (Shorea robusta)

- An important timber species native to India, valued for its strong wood and cultural significance in various rituals.

4.Bamboo (Bambusoideae family)

- A fast-growing plant known for its versatility, used for construction, crafts, and as a food source for both humans and wildlife.



Bamboo

Prominent Fauna:

1. Leopard (Panthera pardus)

- A large and adaptable predator known for its stealth and agility.

2.Indian Grey Mongoose (Herpestes edwardsii)

- A small carnivorous mammal recognized for its agility and keen hunting abilities, often seen in rural and semi-urban environments.



Sloth Bear (Melursus ursinus)

3.Sloth Bear (Melursus ursinus)

- A nocturnal bear species that feeds primarily on insects and fruits, known for its distinctive shaggy coat and long claws.

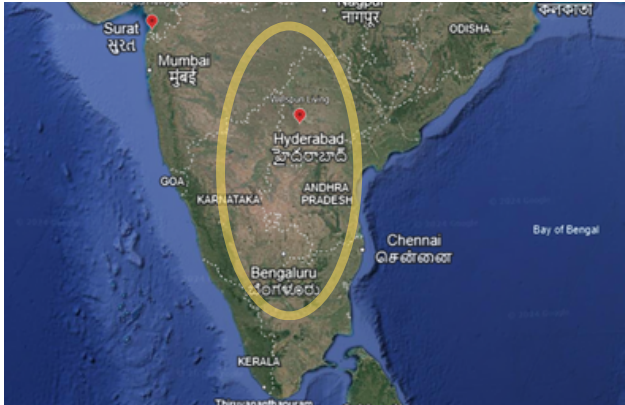
4.Indian Wild Boar (Sus scrofa cristatus)

- A robust and versatile species found in forests and agricultural landscapes, known for its adaptability.



Indian Grey Mongoose

Hyderabad

Bio geographic zone :	Deccan Plateau (marked in yellow)	
State / Union Territory :	Telangana	
Environmental Characteristics of the area :	Area is covered by forests, rivers and lakes which supports diverse flora and fauna. Rainfall is relatively high.	

Prominent Flora:



Indian Jujube (*Ziziphus mauritiana*)



Amla (*Phyllanthus emblica*)

1. Banyan (*Ficus benghalensis*)

- A large and ecologically significant tree, known for providing shelter and food for a variety of species, and often revered in Indian culture.

2. Palash (*Butea monosperma*)

- A tree known for its vibrant red-orange flowers, often referred to as the "flame of the forest".

3. Indian Jujube (*Ziziphus mauritiana*)

- A fruit-bearing tree that plays an important role in sustaining local wildlife and communities..

4. Amla (*Phyllanthus emblica*)

- A tree valued for its fruit, which is rich in vitamin C and widely used in traditional medicine and culinary practices across India.

Prominent Fauna:

1. Indian Roller (*Coracias benghalensis*)

- A strikingly colorful bird often seen perched on wires or trees, admired for its vivid blue and green plumage and acrobatic flight displays.



Indian Roller (*Coracias benghalensis*)

2. Black Drongo (*Dicrurus macrocercus*)

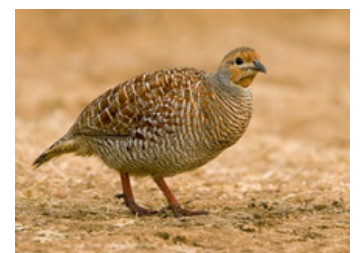
- A small, glossy black bird known for its bold and aggressive behavior, especially when defending its territory.

3. Eurasian Collared Dove (*Streptopelia decaocto*)

- A common and adaptable dove species found in both rural and urban areas.

4. Grey Francolin (*Francolinus pondicerianus*)

- A ground-dwelling bird often found in open scrubland and agricultural fields.



Grey Francolin

3. METHODOLOGY

Defining Risk. In scientific terms, risk is defined as the probability of an adverse event or outcome occurring due to exposure to a hazard, combined with the severity or impact of that event. Mathematically, it is often expressed as:

$$\text{Risk} = \text{Probability of Event} \times \text{Magnitude of Impact}$$

Probability of Event represents the likelihood or frequency of the hazardous event occurring. Magnitude of Impact refers to the extent of harm or damage that the event could cause, should it occur.

Risk Scoring Parameter:

This assessment evaluates biodiversity risks at Welspun Living Limited's plants in Anjar, Vapi, and Hyderabad using a 1 to 5 scale, where:

- 1 to 1.8: Very Low Risk
- 1.8 to 2.6: Low Risk
- 2.6 to 3.4: Medium Risk
- 3.4 to 4.2: High Risk
- 4.2 to 5.0: Very High Risk

We assessed risks under two categories:

Scope Physical Risk: Covering provisioning services, regulating services, cultural services, and pressures on biodiversity.

Scope Reputational Risk: Covering environmental factors, socioeconomic factors, and reputational factors.

Data Collection and Averaging:

Risk scores for each plant were collected and averaged to provide a combined view. This involved calculating the mean score for each risk category, offering an overall risk profile for the three locations.

Mitigation Evaluation:

Welspun's mitigation measures were evaluated in the context of the identified biodiversity risks and population trends. These measures include habitat restoration, afforestation, pollution control, and water conservation initiatives. The effectiveness of these efforts was assessed by comparing current biodiversity indicators with historical baselines, ensuring that the company's sustainability practices align with reducing biodiversity risks.

Data Analysis and Reporting:

The averaged risk scores and trend visualizations were analyzed to identify overall risk levels, categorized into predefined risk levels. These insights were used to guide targeted mitigation strategies and refine Welspun's ongoing efforts to address biodiversity risks effectively.

4. OBSERVATIONS

4.1 Explanation of Risk Factors

Scape Risk Overview

Scape risk refers to the potential threats that human activities pose to biodiversity and ecosystems in a particular area. It's used to evaluate the environmental and reputational risks a company faces when its operations affect the surrounding natural environment. The WWF Biodiversity Risk Filter helps measure these risks by looking at both physical and reputational factors.

Scape Physical Risk

This is the direct impact on the environment caused by industrial or other human activities. It's broken down into several categories:

Provisioning Services: These are the natural resources we rely on, like water, food, and materials (e.g., timber). When industries overuse or pollute these resources, the risk increases. **Regulating Services:** These services help maintain balance in nature, such as controlling climate, cleaning water, and purifying air. When these processes are disrupted (e.g., by pollution or deforestation), it poses a risk to the environment. **Supporting Services:** These are basic services that keep ecosystems functioning, like soil formation and nutrient cycling. Industrial activities can weaken these services, making ecosystems less stable. **Cultural Services:** These are non-material benefits people get from nature, like recreation, cultural heritage, and spiritual value. Industries can reduce access to these benefits by harming natural areas. **Pressures on Biodiversity:** This covers the overall pressures that human activities place on biodiversity, such as habitat loss, pollution, and the introduction of invasive species. High pressure on biodiversity leads to higher risk.

Scape Reputational Risk

This risk arises from how people perceive a company's impact on the environment and local communities. It includes:

Environmental Factors: This looks at the company's environmental footprint—how much it harms or helps the natural environment. A negative impact can lead to public criticism and legal challenges. **Socioeconomic Factors:** This measures how the company's activities affect the lives of local people, particularly vulnerable groups like farmers or tribal communities. Harmful impacts on livelihoods or health can damage the company's reputation. **Additional Reputational Factors:** This involves other risks, such as negative media coverage or activism by environmental groups. If a company is seen as environmentally harmful, it could face boycotts or fines.

4.2 Bio- Diversity Risk Data

The following tables contain Scape risk Scores of both physical risk and reputational risk, It contains both net risk and individual category risk score of each , the below data is driven from WWF Bio-diversity risk Filter.

	Scape Physical Risk (net)	3.693
1.	Provisioning Services	4.06
2.	Regulating & Supporting Services - Enabling	3.17
3.	Regulating Services - Mitigating	3.79
4.	Cultural Services	NO DEPENDENCY
5.	Pressures on Bio-Diversity	2.95

	Scape Reputational Risk (net)	3.62
1.	Environmental Factors	2.25
2.	Socioeconomic Factors	4
3.	Additional Reputational Factors	3.25

In the WWF Biodiversity Risk Filter, both scape physical and scape reputational risks are calculated using data-driven indicators across these subcategories. Here's how the calculation works:

Data Input:

The Biodiversity Risk Filter uses spatial and temporal data on species populations, land use, ecosystem health, pollution levels, and socio-economic conditions. This data comes from both global and local sources, including environmental reports, satellite imagery, and community surveys.

Scoring:

Each subcategory is assigned a risk score between 1 and 5, with 1 being very low risk and 5 being very high risk. These scores are calculated based on the severity of impact, the scale of industrial activity, the level of ecosystem dependency, and the vulnerability of the species or services affected.

Aggregation:

The risk scores for each subcategory are aggregated to give an overall scape physical risk score and scape reputational risk score for each location. These scores are then averaged across all locations to provide a cumulative risk assessment for the company's operations in a par region.

WWF Biodiversity Risk Filter levels



5. ANALYSES OF SCAPE RISK

	Scape Risk type	Scape Risk Category	General Mitigation Measures And Measures Taken by Welspun Living
1.	Scape Physical Risk	Provisioning Services	<p>Mitigation Measures:</p> <ul style="list-style-type: none"> • Sustainable Resource Management: Implement strategies to use water and other natural resources more efficiently, such as recycling wastewater, adopting rainwater harvesting, and using sustainable raw material sources. • Resource Substitution: Shift to alternative, less impactful materials where possible to reduce reliance on critical natural resources. <p>Measures already adopted : WLL uses 100% recycled water in Anjar Plant.</p> <p>Sustainable Cotton and Implementing Zero discharge (ZLD) in Telangana .</p>
		Regulating & Supporting Services - Enabling	<p>Mitigation Measures:</p> <ul style="list-style-type: none"> • Ecosystem Restoration: Invest in restoration projects to rehabilitate degraded land and water bodies around the plants, which can help restore natural regulating functions like pollination and water filtration. • Sustainable Agriculture: Partner with local farmers to that promote sustainable agricultural practices enhance biodiversity and reduce the impact on local ecosystems. <p>Measures already adopted: WLL has collaborated with local communities to local biodiversity and enhancing ecosystem services like carbon sequestration and soil stabilization.</p> <p>WLL collaborated with over 26000 farmers for sustainable cotton production and trained them for sustainable farming practices.</p>
		Regulating Services - Mitigating	<p>Mitigation Measures:</p> <ul style="list-style-type: none"> • Pollution Control: Strengthen pollution control measures, such as installing advanced filtration systems, to minimize emissions and effluents that can disrupt local water and air quality. • Buffer Zones: Establish buffer zones around critical habitats to reduce the impact of industrial activities on sensitive ecosystems. <p>Measures already adopted: WLL has a enhance wastewater treatment facilities to exceeds environmental standards, thus protecting downstream water quality. for example : Zero Liquid discharge in Hyderabad plant</p> <p>WLL also has ETP at each plant locations for treating effluents before discharge.</p>

		Cultural Services	<p>Mitigation Measure:</p> <ul style="list-style-type: none"> • Cultural Engagement: While there is no direct dependency, Industries can engage with local communities to support cultural heritage projects, which can strengthen community relations and contribute to cultural preservation. <p>Measures already adopted:</p> <p>WLL has benefited more than 8 lakh people as part of its CSR including more than 41,000 women through there Wel-Netrutva Program.</p>
		Pressures on Biodiversity	<p>Mitigation Measures:</p> <ul style="list-style-type: none"> • Biodiversity Offsets: Develop and implement biodiversity offset projects to compensate for any unavoidable impacts on biodiversity, ensuring no net loss of biodiversity. • Habitat Protection: Protect and enhance habitats around operational site. <p>Measures already adopted:</p> <p>WLL has collaborated with Gujarat Institute of Desert Ecology (GUIDE) as a initiative to understand the local biodiversity and can work in-order to preserve that . The species diversity is higher by 50% in Welspun City and WLL identifies critical species for further support through a biodiversity park.</p>

2.	Scape Reputational Risk	Environmental Factors	<p>Mitigation Measures:</p> <ul style="list-style-type: none"> • Transparent Reporting: Improve transparency in environmental reporting, ensuring that stakeholders are well-informed about the company's environmental performance and efforts to mitigate biodiversity impacts. • Environmental Certifications: Pursue environmental certifications, such as ISO 14001, to demonstrate commitment to best practices in environmental management. <p>Measures already adopted:</p> <p>WLL publishes annual sustainability reports detailing their environmental impact and mitigation efforts, enhancing their reputation for environmental stewardship.</p>
		Socioeconomic Factors	<p>Mitigation Measures:</p> <ul style="list-style-type: none"> • Community Development Programs: Invest in community development initiatives that promote biodiversity conservation and provide sustainable livelihoods that are less reliant on natural resources. • Stakeholder Engagement: Actively engage with local stakeholders, including communities and NGOs, to address their concerns and incorporate their input into biodiversity management plans. <p>Measures already adopted:</p> <p>WLL funds local conservation projects that provide economic benefits to communities. Welspun runs many programs namely: WelShiksha, WelNetrutva, WelSwasthya, WelSuraksha, WelPrakruti, Welkrishi.</p>

		<p>Additional Reputational Factors</p>	<p>Mitigation Measures:</p> <ul style="list-style-type: none"> Proactive Media Relations: Develop a proactive media strategy to highlight positive biodiversity initiatives and counteract negative perceptions. Corporate Social Responsibility (CSR): Expand CSR activities to include biodiversity conservation efforts, which can enhance the company's image and reputation. <p>Measures already adopted: WLL launches a media campaign showcasing its biodiversity conservation projects, positioning the company as a leader in environmental sustainability.</p>
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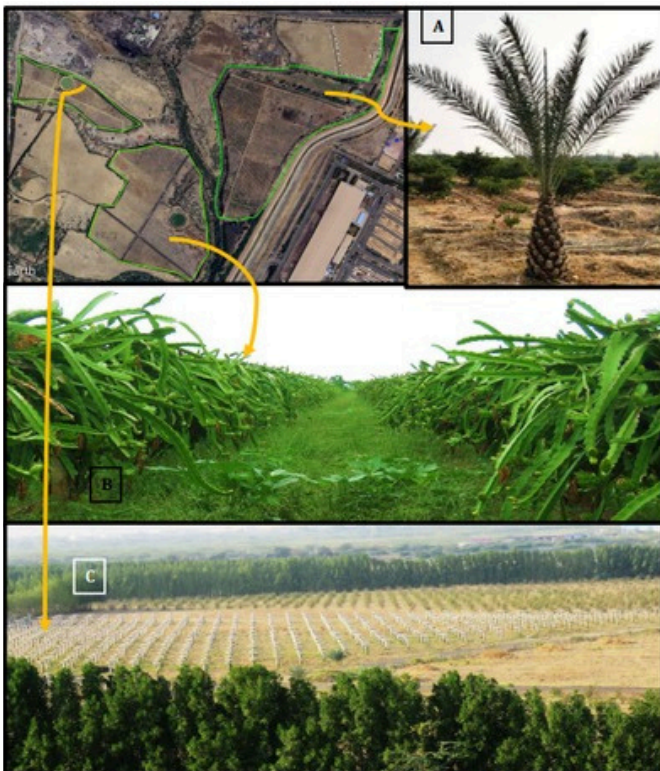
Images to Support Welspun's above mentioned claims of Mitigation Measures taken:



Wel-Netrutva empowers women in rural areas through sustainable livelihood opportunities. These initiatives have positively impacted 41,000+ beneficiaries, honing skills, supplying resources, and supporting sustainable futures.



(A: Sewage treatment Plant, B: Rainwater harvesting pond) As Welspun's Anjar plant uses 100 % Recycled water, Water coming from city is recycled and used, this helps to preserve aquatic ecosystems and improve the quality of water bodies near Welspun's plants.



(A: Date palm plantation, B: Dragon fruit plantation, C: Dragon fruit and Pomegranate plantation) In order Increase Welspun's Biodiversity density and to increase green belt cover Welspun is dedicated towards planting more and more native species in it's plant Impact vicinity. The above picture shows Welspun's efforts towards bio-diversity at Anjar.



All of our ecological projects and nature-related activities are included in the Wel-Vriksha program. Under this initiative, we planted 40,000 trees, deepened 15 ponds to retrieve 115,000 CuM water, and constructed 5,000 sanitation blocks. As a result it increased bio-diversity density of our plant.

6. CONCLUSION

This Biodiversity Risk Assessment Report for Welspun Living Limited's plants in Anjar, Vapi, and Hyderabad provides an in-depth analysis of biodiversity risks across these locations. The analysis reveals that Anjar falls within a relatively higher-risk zone, while Vapi and Hyderabad are relatively less risk zones compared to Anjar majorly due to high rainfall in these areas, particularly in provisioning and regulating services. These risks stem from industrial pressures on biodiversity and the unique ecosystems in these regions, such as the desert species in Anjar, the rich biodiversity of the Western Ghats near Vapi, and the dry deciduous forests around Hyderabad.

Despite these challenges, Welspun has consistently demonstrated a proactive approach to mitigating biodiversity risks. Through the implementation of targeted strategies, such as enhanced water management practices, emission reduction, and community engagement, Welspun has significantly reduced its environmental impact. Continuous monitoring, reassessment, and collaboration with local communities further emphasize their commitment to sustainable practices.

Welspun's strong sustainability credentials reinforce this commitment. Ranked 16th among 211 companies in Sustainalytics' ESG risk rating and holding a low risk 11.5 Sustainalytics score, Welspun is categorized as low risk in terms of its environmental impact. These achievements underscore the effectiveness of their sustainability efforts.

66

Score at DJSI
ESG Rating

1st

Ranked 1st in India and
7th Globally in DJSI.

Amongst top

#100

Sustainable companies
in India by ET- Future
Scape

All the government protocols/ norms and laws are obeyed and the sustainability promises of Welspun Living are annually reported and verified with due diligence. Welspun is well-positioned to protect both the environment and the communities that depend on it, securing a sustainable future for its plants and the regions in which they operate.

The company's sustainability initiatives, supported by its strong ESG rankings and risk scores, demonstrate that there is no significant threat to biodiversity from Welspun's operations.

In conclusion, while biodiversity risks in the region are high, Welspun has successfully implemented strategies to mitigate those risks, ensuring that its operations do not pose a threat to the surrounding ecosystems. With its continued focus on sustainability and biodiversity preservation.

