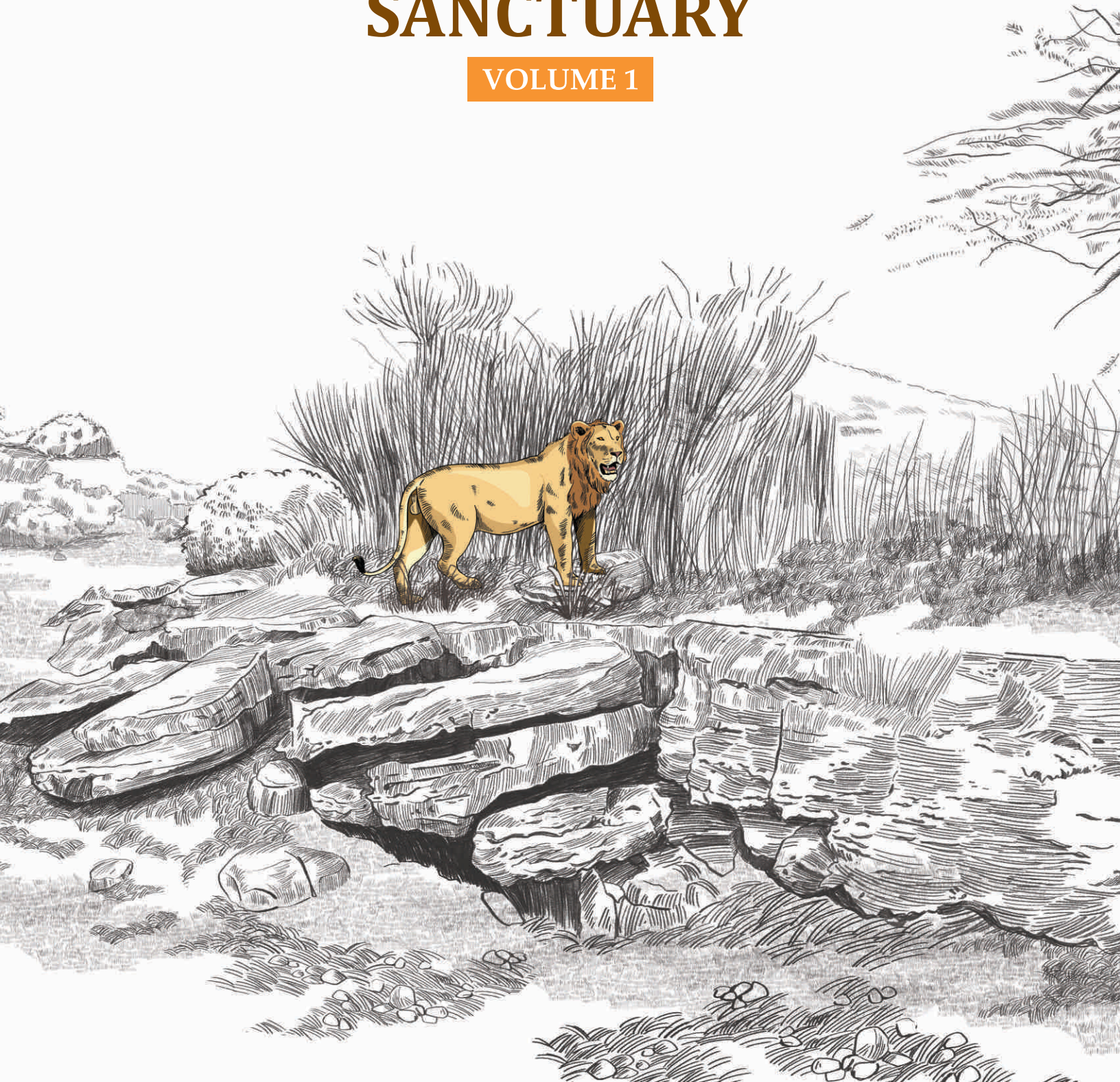




MANAGEMENT PLAN FOR  
**BARDA WILDLIFE  
SANCTUARY**

VOLUME 1





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SANCTUARY**

**VOLUME 1**



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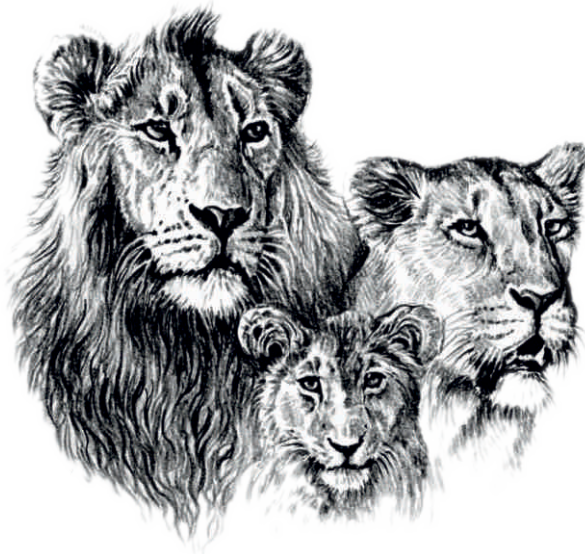
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## FOREWORD

The remarkable success story of the Asiatic lions in global conservation efforts is truly noteworthy, and the increasing Asiatic lion population underscores the necessity for ongoing conservation endeavours within the Gujarat state. The Barda Wildlife Sanctuary, serving as a second home for Asiatic lions within Gujarat, has recently witnessed the natural recolonisation of this majestic species since 1879. This sanctuary is anticipated not only to offer a suitable habitat for the magnificent Asiatic lions but also to function as a source population for the surrounding landscape in the future. Consequently, the conservation and effective management of the sanctuary are paramount, necessitating the development of a comprehensive management plan.

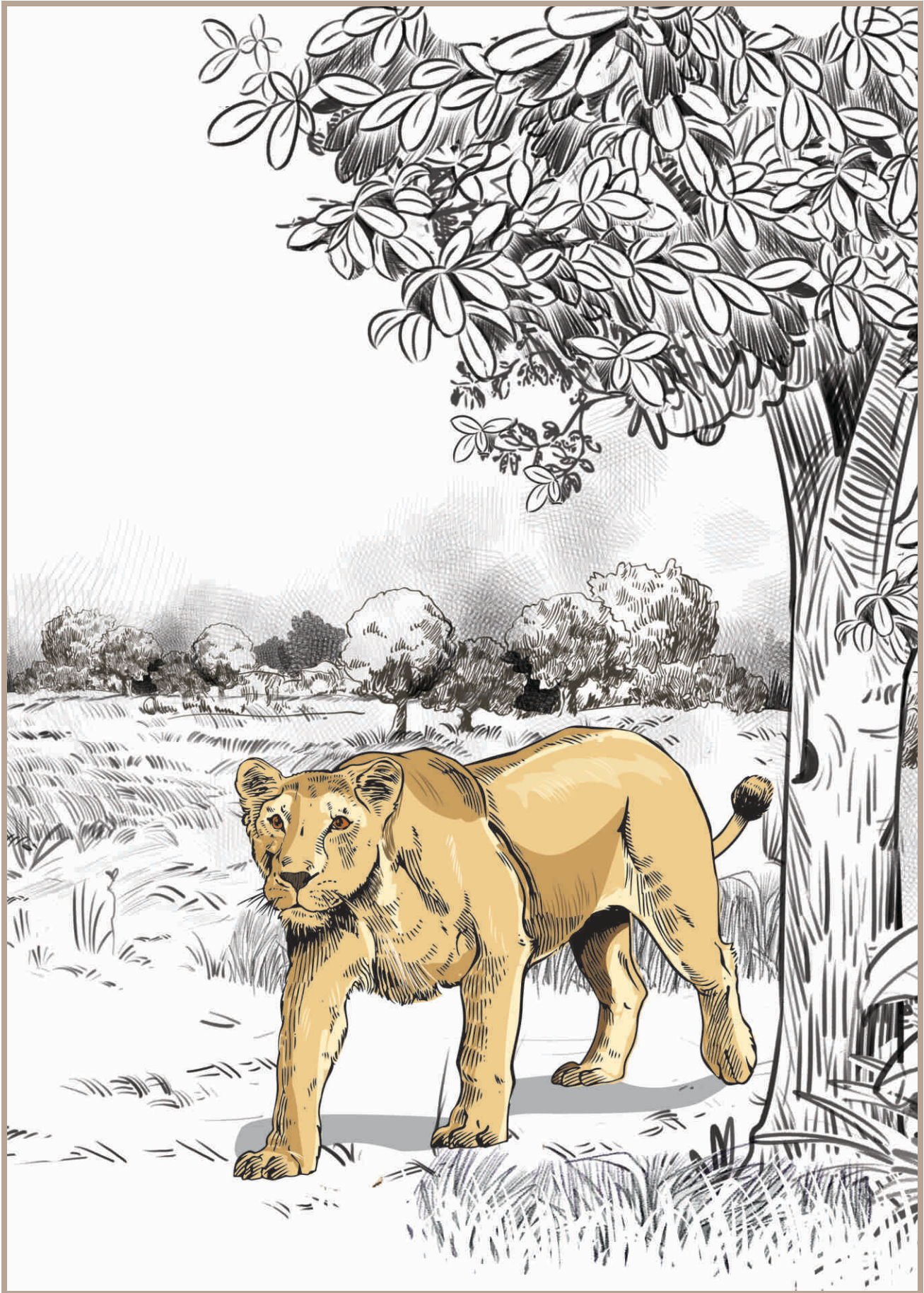
To ensure the safety and well-being of the Asiatic lions inhabiting the sanctuary, the management authorities need to address a myriad of challenges, all of which are meticulously detailed in this comprehensive management plan.

It is indeed gratifying to peruse this thorough document outlining long-term management strategies for the conservation of one of the state's most pristine biodiversity areas. I extend my heartfelt congratulations to the writer for his commendable efforts in presenting innovative ideas and covering nearly all aspects with meticulous detail. With the incorporation of extensive, scientifically reviewed content in this management plan, I am confident that significant progress will be achieved in the Barda Wildlife Sanctuary over the next decade. Furthermore, this management plan will serve as an invaluable reference for scientists, researchers, policymakers, and managers alike.



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## PREFACE

Barda Wildlife Sanctuary has been designated as a second home for the conservation of Asiatic lions. The stewardship of Barda Wildlife Sanctuary (Barda WLS) carries immense significance, chiefly due to the recent recolonisation by the flagship species—the Asiatic lion—and its diverse biodiversity. The conservation and management of Barda demand the formulation of a comprehensive management plan. However, with the resurgence of Asiatic lions in Barda Wildlife Sanctuary, this management plan proposes several interventions centered around Asiatic lion conservation.

This management plan provides insights into various facets of Barda Wildlife Sanctuary, with a specific emphasis on the conservation of Asiatic lions within the sanctuary and its surrounding areas. It delves into its historical perspective, addressing emerging challenges such as the human-wildlife conflict and habitat manipulation activities favouring wildlife. The document also explores how the available human and technological resources can be optimally utilised to achieve the goal of Asiatic lion conservation in the sanctuary.

Furthermore, the plan discusses the current ecological state of the sanctuary and outlines future steps, including prey augmentation, protective measures, the establishment of an Asiatic lion monitoring center, and the creation of robust baseline data through rigorous scientific inputs. After extensive brainstorming, research, and discussions, a comprehensive chapter has been added outlining strategies to tackle the management challenges.

I am confident that this management plan will meet the requirements and expectations of those diligently working for the conservation of the Barda Wildlife Sanctuary and Asiatic lions. Additionally, the detailed literature review, comprehensive data lists, and scientifically supported protocols will serve as a valuable reference for forest officials, researchers, wildlife managers, and scientists.



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I express my deep gratitude to my senior officers for their unwavering encouragement, guidance, and invaluable sharing of their extensive experience, which played a pivotal role in shaping this plan. Special acknowledgement goes to Mr. U. D. Singh, IFS, Principal Chief Conservator of Forests & Head of Forest Force; Mr. S. K. Srivastava, IFS, Additional Principal Chief Conservator of Forests (Wildlife), and Mrs. Aradhana Sahu, IFS, Chief Conservator of Forests, Wildlife Circle, Junagadh, for providing innovative ideas, offering feedback, contributing constructive thoughts, and extending crucial support. I extend heartfelt thanks to Mr. Nityanand Srivastava, IFS, Principal Chief Conservator of Forests (Wildlife) & Chief Wildlife Warden, for entrusting me with the opportunity to craft the management plan for Barda Wildlife Sanctuary. It is indeed a great honour for me to be involved in writing the Barda Wildlife Sanctuary management plan.

Special recognition is extended to Mr. Arun Kumar, IFS, DCF, Porbandar Forest Division, for providing valuable insights, practical and analytical suggestions, and ensuring a seamless flow of data sharing. Deep gratitude is also conveyed to the Assistant Conservator of Forests, Range Forest Officers, and field staff of Barda Wildlife Sanctuary, Rescue & Rehabilitation Teams, Veterinary Doctors, and their teams of Barda Wildlife Sanctuary and Wildlife Division, Sasan-Gir, for their valuable inputs. Thanks are also owed to the office staff of the Porbandar Forest Division for supporting the work by providing all necessary information regarding the sanctuary timely. Help and cooperation received from the office staff of the Chief Conservator of Forests, Wildlife Circle, Junagadh, and the office of the Deputy Conservator of Forests, Wildlife Division, Sasan-Gir, are duly acknowledged.

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of researchers from the Wildlife Division, Sasan-Gir, is also duly acknowledged for their tireless efforts in conducting surveys and collecting valuable data from the field. Their commitment and contribution have been instrumental in enhancing the quality and comprehensiveness of the information incorporated into this management plan.

This acknowledgement would only be complete with expressing appreciation for the dedication and efforts of the writers of the previous management plan for Barda Wildlife Sanctuary, which served as a baseline of information, reference, and inspiration for me.

A handwritten signature in blue ink, consisting of a large, stylized 'M' followed by a series of horizontal lines and a vertical stroke.

**DR. MOHAN RAM, IFS**  
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## EXECUTIVE SUMMARY

Spread over 192.31 km<sup>2</sup> in Gujarat's Saurashtra region, the Barda Wildlife Sanctuary (Barda WLS) holds significant importance as a conservation site for the Asiatic lion (*Panthera leo persica*). The Asiatic lion population, originating from Gir protected areas, serves as a source for the species, expanding its reach to approximately 30,000 km<sup>2</sup>. The expanding territories include the eastern, northern, and coastal areas of the Gir landscape. Recognizing the need to accommodate this growth, the Government of Gujarat and the Gujarat Forest Department designated Barda WLS as a second home for Asiatic lions, making it crucial for their dispersal and conservation.

Recent observations show that an adult male lion has naturally settled in the sanctuary, emphasizing the importance of active conservation efforts. The current management plan strives to provide a comprehensive and scientifically sound approach to address emerging challenges, ensuring the survival of Asiatic lions and the preservation of the sanctuary's unique ecosystem.

The plan focuses on the Asiatic lion as the flagship species, considering its long-term habitat needs and the importance of maintaining a high-quality environment for the growing lion population. The sanctuary is divided into three zones: the core zone (comprising the entire Barda WLS), the buffer zone, and the eco-sensitive zone. The core zone faces challenges like invasive alien species, particularly *Euphorbia*, necessitating strategies for their removal. Additionally, the high growth of *Acacia senegal* in the core zone and the need for grassland restoration in the buffer zone are addressed in the plan.

Barda WLS has experienced the local extinction of important prey species, such as sambar and spotted deer. To revive their population, the plan recommends augmenting captive breeding efforts in the wild. Ecological monitoring, water resource management, protection from grazing, fire management, and strategies for religious pilgrimage-induced tourism are integral components of the plan.

Addressing issues related to encroachment, poaching, and the impact of Maldharis (local pastoral communities) on natural resources, the plan suggests measures such as demarcation of boundaries, anti-poaching initiatives, and sustainable livestock management. Furthermore, the conservation of geological formations and the establishment of ecotourism infrastructure are proposed to enhance the sanctuary's overall management.

Recognizing the lack of research activities, the plan advocates for lion-centric research to better understand their spatial and predation ecology, emphasizing the lion's role in the Barda ecosystem. To strengthen the sanctuary's management, the plan underscores the importance of improving basic amenities and infrastructure. Overall, the plan seeks to create a holistic strategy for the conservation and sustainable management of Barda Wildlife Sanctuary, ensuring the well-being of its diverse flora and fauna for future generations.





**FOREST DEPARTMENT  
GUJARAT STATE**