

STATE ACTION PLAN

FOR CONSERVATION OF AVIAN DIVERSITY, THEIR ECOSYSTEMS, HABITATS & LANDSCAPES IN KARNATAKA

Submitted By Sálim Ali Centre for Ornithology and Natural History

Published by

Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Jorbagh Road, New Delhi – 110 003 Website: www.moef.nic.in

&

Sálim Ali Centre for Ornithology and Natural History South India Centre of Wildlife Institute of India, Ministry of Environment, Forest and Climate Change, Anaikatty (Post), Coimbatore – 641108, Tamil Nadu, India Website: www.sacon.in

Research Team

Dr. H. N.Kumara Mr. G. Praphul

Design & Layout

Vigneshwaran S

Citation

Kumara, H.N. and Praphul, G. (2023). State Action Plan-Karnataka. SACON Technical Report No. PR-263. Coimbatore.

Reproduction

The material in the Publication may be reproduced in whole or in part in any form for education or non-profit purposes, provided acknowledgement is made to the copyright holder. This publication can be used for commercial purposes only with permission from the Ministry of Environment, Forest and Climate Change





Sh Virendra R. Tiwari, IFS, Director





FOREWORD

Karnataka boasts an incredibly diverse avifauna with 548 species, which constitute 35% of India's bird species including six Critically Endangered, seven Endangered, 17 Vulnerable, and 29 Near Threatened taxa. Notably, Karnataka is home to 38 of India's 79 endemic bird species, with 23 exclusive to the Western Ghats. Additionally, 14 out of 18 range-restricted species find refuge here, emphasizing the state's crucial role in avian conservation. I am delighted to inform you that the State-level Action Plan (SAP) for bird conservation in Karnataka serves as a robust framework, aligned with the Visionary Perspective Plan (VPP) for avian conservation on a national scale and also with international targets for conserving global biological diversity. The SAP strategically addresses key thrust areas, providing a roadmap to safeguard the state's rich bird diversity. Emphasizing the prioritization of threats, identification of conservation gaps, and proposal of strategic plans are noteworthy aspects of this comprehensive action plan.

This plan is pivotal in identifying domains that urgently require attention for the betterment of avifaunal species and their habitats. The SAP meticulously outlines threats to birds within and outside protected areas, encompassing diverse landscapes such as grasslands, scrublands, wetlands, and urban habitats. It underscores the importance of assessing the impact of state-level projects on avifauna and addresses crucial management concerns, including capacity building and increasing awareness through nature education and outreach programs to foster community participation. This document is poised to serve as a framework for avian conservation in Karnataka, facilitating collaboration among various stakeholders at the state level, partner institutions, and organizations. The 15 main programs outlined here address a spectrum of threats to birds in the state, reflecting a collective effort of government bodies, and private entities. Successful implementation hinges on collaborative action across sectors, making this document an invaluable resource for the forest department, researchers, NGOs, bird enthusiasts, students, and the public, providing a comprehensive overview of the status of birds in Karnataka.

I extend my congratulations to the team for completing this action plan. My appreciation also goes to the State Forest Department, NGOs, and other stakeholders for their valuable contributions to this document. I anticipate effective implementation of this action plan in Karnataka for the conservation of birds, and their habitats.

Virendra R. Tiwari

ACKNOWLEDGMENTS

We extend our profound gratitude to the Ministry of Environment, Forest and Climate Change (MoEFCC) and the Sálim Ali Centre for Ornithology and Natural History (SACON) for spearheading the development of the State Level Action Plan dedicated to the conservation of avian species, habitats, landscapes, and ecosystems in Karnataka. We express our gratitude to the officers of the Karnataka Forest Department for their input and discussion that has helped in improving this document. We express our sincere appreciation to the Director of SACON and the diligent staff for their constant support throughout the project period.

We extend our appreciation to Dr. Rajah Jaypal Senior Principal Scientist, SACON for his crucial role in designing the species scoring system to prioritize RET species. His scientific expertise and guidance were indispensable for effective conservation strategies in the State Action Plan.

Our heartfelt thanks go to Shyamal, Shiva Shanker, and Vijay Ittigi for their invaluable contributions to various facets of ornithology in the state, providing enlightening insights into the diverse landscapes.

The talented photographers whose visual documentation has not only enhanced the allure of the action plan but also emerged as a potent advocacy tool, underscoring the beauty and significance of avian species in Karnataka. We acknowledge Mr. Vigneshwaran S for his indispensable assistance in crafting the design template for the State Action Plan, contributing expertise and creativity to visually present the document.

This collaborative undertaking stands as a testament to the dedication and commitment of each individual and organization involved in formulating the State Action Plan for the conservation of birds and their habitats in Karnataka. Together, we aspire towards a sustainable future for our avian companions and the ecosystems they inhabit.

Kumara and Praphul

BACKGROUND

In the intricate tapestry of varied ecosystems in Karnataka, birds emerge not merely as winged wonders but as vital threads weaving the fabric of ecological harmony. As bioindicators and pollinators, avian species play an indispensable role in preserving the delicate balance of nature. The myriad melodies that resonate through the diverse landscape of Karnataka encapsulate not only the ornithological richness of the state but also the health of its ecosystems.

Birds, acting as ecological barometers, reflect the well-being of habitats. Their intricate interactions with flora and fauna contribute to the resilience and sustainability of ecosystems. From seed dispersal to insect control, birds orchestrate a symphony of ecological functions that transcend the boundaries of their avian realm.

However, this delicate equilibrium is under constant threat, accentuating the urgent need for avian conservation. The exponential growth of developmental projects, anthropogenic activities, and the clandestine trade in birds pose formidable challenges. The ramifications of these threats reverberate beyond avian populations, affecting entire ecosystems and, consequently, the well-being of communities intertwined with nature.

Recognizing the imperative to safeguard avian diversity of Karnataka, the Ministry of Environment, Forest and Climate Change (MoEFCC), in collaboration with the Sálim Ali Centre for Ornithology and Natural History (SACON), has formulated a 'Visionary Perspective Plan for Conservation of Avian Diversity.' This pioneering initiative aims not only to protect individual bird species but to fortify the ecological foundations on which they thrive.

Karnataka, adorned with diverse habitats, encapsulates over 35% of India's avian species. Despite its geopolitical formation in 1956, ornithological exploration in the region predates its statehood. Historical pioneers such as Butler, Davison, Taylor, and Hume laid the foundation, culminating seminal survey of Mysore State by Dr. Sálim Ali Despite ethical considerations today, these collections played an instrumental role in shaping contemporary ornithology.

Following these endeavours, amateur bird-watching surged post-1970, propelling avian documentation in Karnataka. In 2000, Ameen Ahmed initiated the first comprehensive bird checklist for Karnataka, setting the stage for subsequent expansions and revisions. In 2015, Praveen et al. meticulously reorganized the checklist, eliminating poorly documented species. This iterative process, combined with the advent of digital photography, catapulted avifauna documentation of the state to 548 species as of April 2023. The 548 avian species across 92 families and 25 orders. Noteworthy is the prevalence of 38 endemic species, with 23 exclusively inhabiting the Western Ghats. The state houses 93 species listed under Schedule I of the Wildlife Protection Act 1972, emphasizing the need for conservation measures.

In spearheading the conservation effort, the VPP engages with 15 key programs that align with the national perspective plan. From conserving Rare,

Endangered, and Threatened (RET) species to mainstreaming avian diversity into existing government schemes, the VPP meticulously outlines actions and strategies.

- 1. Conservation of Rare, Endangered and Threatened (RET) Bird Species
- 2. Conservation of Important Bird and Biodiversity Areas (IBAs) Outside Protected Area (PA) Network
- 3. Conservation of Protected Areas (PAs) with High Avian Diversity
- 4. Conservation of Avian Diversity at the Landscape Level
- 5. Conservation of Inland Aquatic Ecosystems with High Avian Diversity
- 6. Conservation of Coastal and Marine Ecosystems with High Avian Diversity
- 7. Conservation of Migratory Birds
- 8. Impacts of Developmental Projects and other Anthropogenic Activities on Avian Diversity and Habitats
- 9. Curbing Illegal Trafficking of Birds in India
- 10. Conservation of Avian Diversity in Urban Areas
- 11. Surveillance and Monitoring of Avian Diseases
- 12. National Plan for Nature Education and Awareness for Conservation of Avian Diversity, their Ecosystems, Habitats and Landscapes
- 13. National Capacity Building Program for Protection and Monitoring of Avian Diversity, their Ecosystems, Habitats and Landscapes
- 14. Mainstreaming Conservation of Avian Diversity with other Government of India Schemes and Programme

15. Implementation of International Protocols and Conventions in Conservation of Avian Diversity

In consonance with the VPP, Karnataka endeavours to formulate this State level Action Plan (SAP). This plan, derived through extensive consultations with stakeholders, pinpoints state-specific avian conservation issues and delineates priority projects for effective management.

Despite notable avian studies in key regions like Mysuru and Bengaluru, knowledge gaps persist, particularly in North Karnataka. Bridging these gaps becomes imperative for a holistic understanding of avian dynamics, distribution patterns, and conservation imperatives.

In the crucible of avian diversity in Karnataka, the SAP of the VPP emerges as a guiding light, illuminating a path toward sustainable coexistence. This backdrop establishes the stage for a visionary decade, during which strategic actions will unfold, nurturing the avian treasures of Karnataka for generations to come.

Foreword		List of Tables	XIV
Acknowledgments	V		
Background	VI	List of Appendix	XVI
Abbrevations	XII	List of Figures	XV

PART A: DESCRIPTION OF BIRDS & THEIR HABITATS

An Introduction to Biogeography and Biodiversity of the State

Basic Geography and State Administration	04
Biogeographic Zones, Ecoregions and Agro-Ecological regions of the State	22
Forests, Protected Areas and Other significant conservation areas in Karnataka	3(
Flora and fauna of the state	59
Key local NGOs and other organizations involved in Avian Conservation in the state	61

4	A Brief History of State Ornithology	64
2	History of Specimen Collection in the state	66
D	Description of Bird Diversity in Karnataka	68
9	Major bird species of conservation significance in the state	70
1	Bird Studies in Karnataka	71

An Overview of Avifauna of the State



PART B: BIRD CONSERVATION ISSUES & MANAGEMENT PRIORITIES

Programme 1

Conservation of rare, endangered & threatened (RET) bird species of Karnataka

Programme 2

Conservation of Important Bird & Biodiversity Areas (IBAs) Outside Protected Area (PA) Network

Programme 3

Conservation of Protected Areas (PAs) with High Avian Diversity

Programme 4

Conservation of Avian Diversity at the Landscape Level

Programme 5

 Conservation of Inland Aquatic Ecosystems with High Avian Diversity
Programme 6
Conservation of Coastal and Marine Ecosystems
100

with High Avian Diversity

Programme 7

87 Conservation of Migratory Birds

Programme 8

 Impacts of Developmental Projects and other
Anthropogenic Activities on Avian Diversity and 110 Habitats

105

PART B: BIRD CONSERVATION ISSUES & MANAGEMENT PRIORITIES

Programme 13

Programme 9

		National Capacity Building Programme for	
Curbing Illegal Trafficking of Birds in India	114	Protection and Monitoring of Avian Diversity, their	132
		Ecosystems, Habitats & Landscapes	
Programme 10		Programme 14	
		Mainstreaming Conservation of Avian Diversity	
Conservation of Avian Diversity in Urban Areas	118	with other Government of India Schemes and	136
		Programs	
Programme 11			
and the second s		Programme 15	
Surveillance and Monitoring of Avian Diseases	123	Mainstreaming Conservation of Avian Diversity	
		with other Government of India Schemes and	139
		Programs.	
The second s		APPENDICES	142
Programme 12		REFERENCES	194
National Plan for Nature Education and Awareness		Photo Credits	222
for Conservation of Avian Diversity, their	127		
Frosystems Habitats & Landscapes			

CONTENTS



Published By Sálim Ali Centre for Ornithology and Natural History South India Centre of Wildlife Institute of India, Ministry of Environment, Forest and Climate Change,

Anaikatty (Post), Coimbatore - 641108, Tamil Nadu, India