



Research Paper

## Status of Sarus Crane *Grus antigone antigone* in Banswara, (Raj.).

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**ABSTRACT:** The City of Hundred Islands is located on the hills of Aravali in Southern Rajasthan; around 170 wetlands are contained here. This city is a heaven for migratory birds and a refuge. We found that Sarus Crane (*Grus antigone antigone*) is a mascot of our wetlands and croplands in the current research. Wetlands are the most precious ecosystems at risk in the developed world. Crane ecosystems are in danger of destruction and modification attributable to numerous anthropogenic activities. Therefore, urgent attention is required to conserve the water sources and preserve the study region's marine environments to protect Sarus cranes' diversity. This article is focused on this analysis and deals with the populations and habitats of the Sarus crane, its Distribution, the value of the species, the risks to the bird, and proposes proactive planning for the survival of the Sarus crane. Their delivery is fractured today. The Conservation of such a precious ecosystem is continuing any of the work's impacts of other industries essential to these lines of biodiversity's existence are often appreciable yet fruitful cooperation. Some of the work's effects are also appreciable yet successful cooperation of other important sectors to these life biodiversity lines.

**KEYWORDS:** Wetlands, Biodiversity, Anthropogenic, Degradation, *Grus antigone antigone*.

### I. INTRODUCTION

Birds are some of the most influential organisms of wildlife in this world and, being vulnerable to environmental changes, are important markers for determining the health status of ecosystems [1] and [2]. Birds are among the most potent ecosystem change control devices. To analyze the long-term consequences of habitat fragmentation, shifts in their community, behavior habits, and reproductive capacity have more frequently been used [3]. One of the 15 recognized crane species worldwide, the Indian Sarus Crane (*Grus antigone antigone*) is the only resident breeding crane present in India and Southeast Asia. It is the world's highest-flying creature, with heights of 1.5 to 1.8 m. of the 2700 species of birds in Asia, 323 are currently endangered due to habitat degradation; 130 species are of conservation concern in India alone. About 20 percent of these species are reportedly endangered due to wetland habitat loss [4], [5], [6], and [7]. The Sarus Crane (*Grus Antigone*), the 7th tallest flying bird globally, is India and Southeast Asia's only resident breeding crane. Within a few decades, it has experienced a massive demographic loss [8]. The northern and north-western plains contain the existing range of the Indian Sarus Crane. The depletion of wetland areas, poaching, nest degradation, improvements in farming methods, and wetland catchment conflicts with farmers have been primary drivers of this decrease in western India and half of the west of Tarai lowlands of Nepal, which seems likely to intensify unless appropriate mitigation steps are taken [9], [10], [11] and [12]. This crane is classified as vulnerable because it is accused of experiencing a rapid reduction in population, which is expected to continue owing to extensive decreases in the degree and condition of its wetland environments, pollutant exploitation, and impacts.

The southern districts of Sarus Crane in Rajasthan, namely Banswara, Dungarpur, and Pratapgarh, part of the Chittor Region, are important places. In this section, including Udaipur and Bhilwara, a total distance of 663km was covered. The survey team identified an impressive concentration of Sarus Cranes on the village tanks and backwaters of Mahi Dam. Ninety-eight Sarus Cranes, including 90 adults and eight subadults and juveniles, were seen; the highest concentration was in the Banswara region due to the shift in its ecosystem triggered by the waters of Mahi Dam. It should be remembered that due to the degradation and loss of its natural wetland environment [13], [14] and [15]. Sarus Crane is gradually forced to use suboptimal rice paddies as a breeding habitat. Shifts influence the bird population's composition in vegetation structure attributable to standard or other disruptions caused by humans [16], [17] and [18]. In India, the biology of Sarus Crane was examined by different ornithologists [19], [20], [21], [22], [23], [24], [25], [26], [27], [28] and [29].

## II. MATERIALS AND METHODS

### 2.1 Study area

"The City of Hundred Islands" is the Banswara district of the southernmost part of Rajasthan. It lies between 23.11° N to 23.56° N latitudes and 73.58° E to 74.49° E. longitudes. It is the eastern part occupied by the hills of Deccan trap. Banswara district lies in the Mahi river basin. Mahi enters from the southeast and flowing north towards the northern end of Banswara. It turns southwest, where it forms the boundary between Dungarpur & Banswara. Finally, Mahi reaches into Gulf of Cambay. A good number of wetlands are found in this city, and they provide a habitat platform to aquatic biocommunities. In the present study, observations were made throughout the study area. The present study carried out in some wetlands of Banswara district, namely Kagdi, Lodha, Mordi, Dilab, Baitalab, Patela, Bhagora, Arthuna, Loharia, Metwala, Survania, Nathelav, Padamnath ka gada, Senavasa Talab, Dandela Talab (Padoli village), Haro wetland (Ghatol), Vanela Talab, Kambua, Konia wetland. This research is focused on the ground, site observation, and views of villagers from some viewers. Details and data are gathered by discussions with the Department of Forestry, the Department of Agriculture, the Department of Fisheries, and the appropriate region of Panchyat. Any knowledge is also obtained from secondary sources. These include literature review, reports, and records of related departments. A regular field trip was continuing throughout these periods at intervals of two or four days. However, the schedule was altered according to the situation and availability of time. Field data were collected during morning hours between 5.00 am to 10.00 am, from 12 Noon to 2 pm, and evening from 4.00 pm to 7.00 pm during 2013-2015.

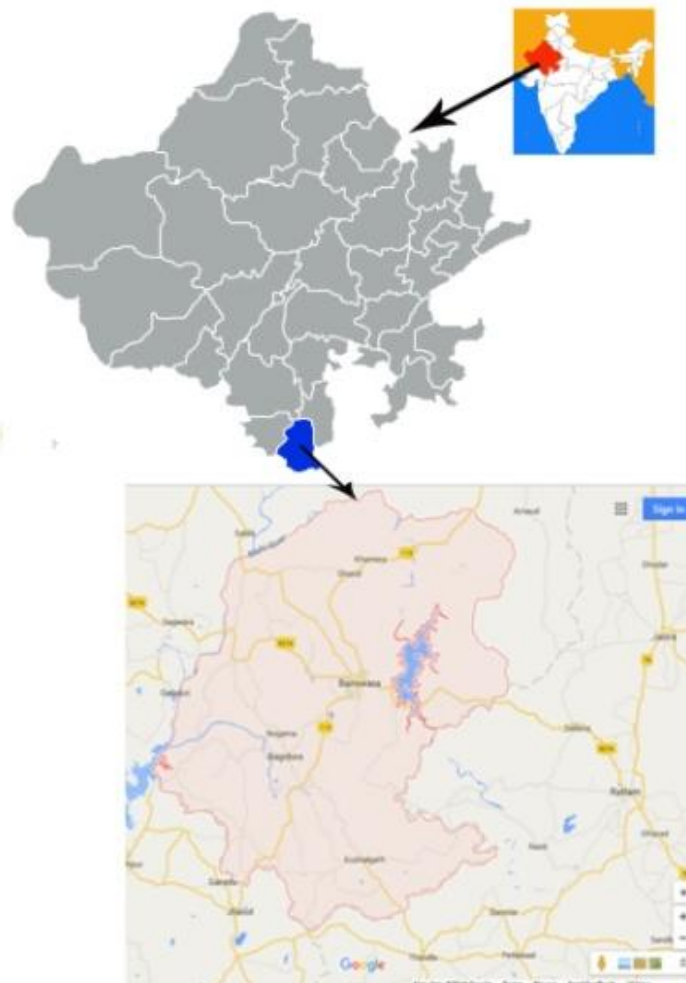


Fig. 1 Shows Study area

### III. RESULTS AND DISCUSSION

The findings showed that 46 birds were present in the study area in which 16 pairs were young with a sub-adult, juvenile, or chick, and 14 birds were young. The adult was 69%, and the juvenile was 30%, which is a good number in this study field. It was observed that the cranes preferred wetlands close to cropland. During the study period, Sarus Cranes were observed in single, pair, and families. Due to temperatures and scarcity of food in the dry season, the number of cranes decreased in the survey area compared to the wet season. This result shows similarities with the earlier work [30], [31], [32], [33] and [34]. In the present study number of *Grus antigone antigone*, the population is suspected of having decreased. It may be due to a combination of loss and degradation of wetlands due to drainage and conversion to agriculture ingestion of pesticides, hunting of adults, and collection of eggs—findings of this study corroborant with the results of different researchers [7], [10], [15], [23], [27], [29] and [35].

### IV. CONCLUSION

From the above study, it is clear that more fieldwork and scientific studies on *Grus antigone antigone* are needed to prepare a proper guideline of the conservation plans. Steps to conserve the environment of *Grus antigone antigone* should be noted by a continuous community count with the assistance of local citizens, teachers, growers, and decision-makers.

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