

Jan 2022

Sarus Work Report

Sarus crane(*Grus antigone*) conservation in Gondia, Bhandara(M.S.) & Balaghat (M.P) districts of Central India.



Work Report submitted by-



INTRODUCTION:

Sarus crane (*Grus antigone*), the tallest flying bird in the world and is often referred as the symbol of love is certainly a treat for human eyes. Towering at over 150 cm or over 5 feet tall on an average, this magnificent bird is ecologically considered as an indicator species, reflecting health of the wetland ecosystem. The striking red head and rough greyish body is paired with a wingspan of about 8 feet.

Once a common sight in the grassy wetlands of Terai region, Gujarat and Central India, the bird is facing a serious threat of existence with the advent of anthropogenic activities in last couple of decades. Although the bird is revered by local communities, changes in land-use pattern and the ever increasing pressure on its habitat has certainly affected their home range and resources.

About S.E.W.A.:

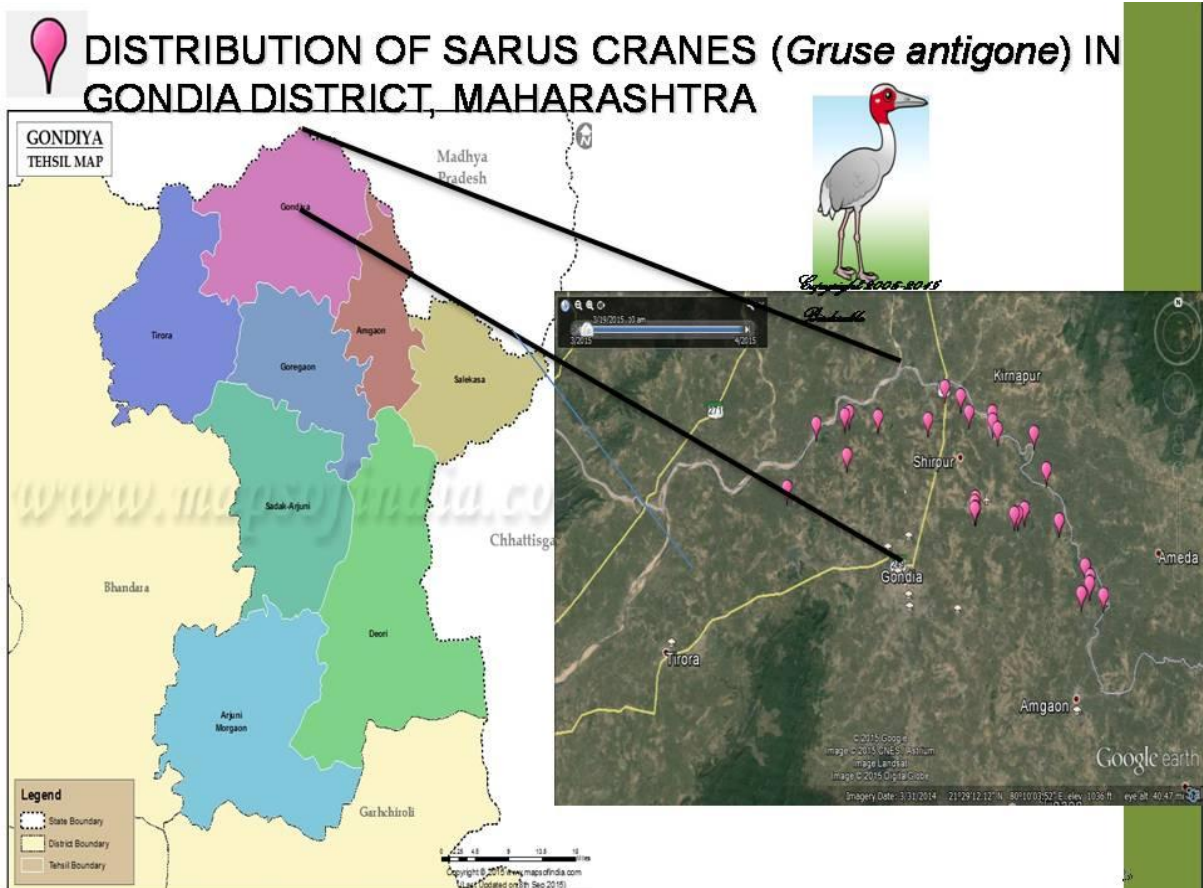
Sustaining Environment & Wildlife Assemblage (S.E.W.A.) consists of highly motivated conservationists with varied expertise, who are working with the prime objective of conserving the natural fauna & flora as our heritage sustainably. S.E.W.A. was established in the year 2014, although the members have experience of well over 17 years working full time in the field of conservation. S.E.W.A. was registered in Gondia district of Maharashtra and its headquarter is stationed at Gondia itself. The core team comprises of trained wildlife biologists, motivated speakers and naturalists with sound network in remote villages of Gondia(M.S.), adjoining Bhandara & Balaghat districts.

S.E.W.A. has been working in protection of Sarus cranes & management of its habitat with a participatory approach, incorporating local stakeholders in conservation activities. In 2004-05, S.E.W.A. members acknowledged the presence of Sarus cranes in Gondia district (M.S.) and later went on to document only a handful of individuals in the early stages of monitoring. There was very less or no information available regarding Sarus cranes of this landscape. It was gradually understood that rivers like 'Baagh' & 'Wainganga', which in fact are the district and state boundaries for Maharashtra and Madhya Pradesh that forms the basis of the habitat of Sarus cranes. Correspondingly, the adjoining districts Bhandara(M.S.) & Balaghat (M.P.) was checked in a similar fashion, which too resulted in affirming the presence of Sarus cranes.

Working Area:

Gondia & Bhandara the easternmost district of Maharashtra and Balaghat, the adjoining district of Madhya Pradesh comprises of a landmass which is home to the Sarus cranes. This population of Sarus cranes in the said landscape is strategically significant as it is the southernmost population of the species in India. Consequently, the probability of having adverse impacts due to 'edge effect' is quite high. In ecology, edge effects are changes in population or community structures that occur at the boundary of two or more habitats. Due to this, it is imperative to protect the species residing on the edge of their distribution boundary to support the subordinate biota, as well as to ensure a healthy and sustainable population of the species in long term.

MAP



(Map showing the distribution of Sarus cranes in northern region of Gondia district right along the edges of 'Baagh' & 'Wainganga' river)

❖ Major threats to Sarus cranes along with their suggested mitigation measures:

1) Destruction of nests:

Due to reduction in natural grassy wetlands because of conversion of lands into agricultural fields, Sarus cranes had adapted newer nesting habits. In the said landscape, S.E.W.A. had documented that Sarus cranes use paddy fields for constructing their nests in breeding season (monsoon). Sarus being a huge bird constructs a considerably bigger nest in these agricultural fields. Also, the nesting season of this bird is in the monsoon season. Hence, there is a direct clash between the farm owner and the bird because for the protection of its nest, the Sarus crane hampers cultivation base activities in the field. This has led to a conflict situation where some farmers would simply destroy the nest in order to continue their cultivation practices.

Sarus cranes lay a single clutch of one or two eggs per year. This means destruction of one nest would destroy the entire breeding season of that pair for that very year.



(Sarus crane with eggs on the nest constructed in paddy fields)

Mitigation measures:

- Awareness drives, which are already initiated by S.E.W.A. needs to be strengthen and aided by administrative authorities. It's only with awareness campaigns that the significance of Sarus cranes and its ecosystem services can be understood by local villagers.
- There should be a model of 'Sarus Mitra' (Sarus friend) comprising of those identified farmers that allow Sarus to nest in their agricultural fields without disturbing. These identified farmer's needs to be honored and lauded on a common platform that would pass on an optimistic message of coexistence.
- Most importantly, these farmers should be provided with a onetime decent allowance as a compensation of the economic loss they suffered because of the nest of Sarus cranes. However, it is to be noted that this activity should be under a strict vigilance so that only the genuine farmers are accounted and also that merely providing money to local villagers should never be considered as a measure for protection.

2) Unregulated use of pesticides & chemical fertilizers:

In recent times, it has been observed that the use of pesticides and chemical fertilizers in agricultural practices has multiplied manifold. Also, the ground reality reveals that even some products which are banned by the government are being sold and used by local farmers under no check. Sarus cranes being a huge and free ranging species require a heavy diet, often foraging throughout the day. As a result, death of Sarus crane individuals has been reported multiple times due to feeding on various biotic resources infected heavily by these pesticides, leading to their poisoning. Such intensive farming practices are inevitably posing a great threat to the long term existence of Sarus cranes.

Mitigation measures:

- The concerned authorities should strictly monitor the use of banned pesticides & chemical fertilizers in the Sarus crane habitat.
- Use of further pesticides and fertilizers should be regulated with a limit of their use.
- Organic farming which can yield a win-win situation for Sarus cranes as well as humans should be strongly promoted by the concerned departments. Sensitization of local farmers regarding beneficial agro based schemes of government should be promoted.



(Left picture: In 2018, an individual of Sarus crane was found in a critical condition in the agricultural fields of 'Dangorli' village of Gondia district. The Sarus was brought to Gondia Range office by S.E.W.A. members where it was provided with basic aid and the veterinarians referred it to the 'Transit treatment Centre, Nagpur'. Unfortunately, the bird didn't survive and the reason of death was found to be poisoning.)

(Right picture: On 17th December 2010, a pair of Sarus crane was found dead due to poisoning near 'Panjhara' lake in Gondia district.)

3) High-Tension Power lines:

Sarus crane being a huge bird with a wingspan of about 8 feet requires a long range flight during ascends and descends. Construction of high-tension power lines has proved to be fatal for these tall birds as their chances of getting hit by these live wires are high in flight.

S.E.W.A. has been observing mortality of couple of individuals almost every year by these overhead transmission lines. The bird coming in contact receives a strong electric shock and falls to the ground in a state of trauma. Sarus cranes being a symbol of fidelity simply add to the misery.

The role of these transmission lines in local extinction of the 'Great Indian Bustard', a flagship species of grassland bird has been widely discussed and acknowledged.

Mitigation measure:

- A scientific study needs to be performed by expert wildlife biologists to assess and derive mitigation measures that should be adopted by the concerned administration.

Injured sarus crane dies during treatment

■ **District Correspondent**
GONDIA, Dec 22

THE rare sarus crane species which is found in Gondia district and has earned identity as 'Destination Sarus' for Gondia is in danger. There are just around 35 sarus birds left in the region and out of which one female sarus that got electrocuted on December 20. It was referred to Transit Treatment Centre (TTC) for further treatment, but reportedly died while undergoing the treatment in Nagpur on Thursday morning.

It may be recalled that Sarus which is the tallest flying bird in the world has its habitat near Paraswada, Lohara, Katangi, Bazartola, etc near Gondia. The bird which also called as 'Loving Birds' lives in pair for whole life. On Wednesday morning a pair was flying in the air when all of a sudden, the female partner accidentally came in contact with the live wire near Lohara village, as a result the bird fell on ground and was seriously got injured.

Biodiversity Management Committee President Ramesh Nagrikar spotted the bird and he

promptly informed the forest officials. They also administered first aid to the bird and looking at the critical condition it was referred



to TTC in Nagpur where veterinarian Dr Kadu and his team made every effort to save the endangered bird, but the bird died next day on Thursday. The untimely death has again raised question over the efforts of officials in saving the endangered species.

NEED TO SPREAD AWARENESS: Sarus cranes are found in Gondia

and adjoining areas of Balaghat district of Madhya Pradesh State. The bird which was at the extinction point one time was saved and the number was raised with the hard efforts of some bird lovers and villagers. The main habitat of these birds is near the water bodies having good vegetation and rich paddy fields beside perennial and seasonable wet lands. But considering them as harmful for the crop, in few cases people had poisoned them.

Likewise the extensive use of pesticide by the farmers has also resulted in their deaths beside the HT (high tension) electricity wire in which the long feathers of Sarus get trapped, injuring them to death.

According to former Wildlife Warden Sawan Bahekar, there is need for more effective steps by forest officials to save the birds from untimely deaths. He opined that they should hold awareness programmes for the farmers and the villagers, explaining them that Sarus cranes are not the enemies but are their friends and advised them for using minimum pesticides.

(On 21st December 2017, a Sarus crane was found in a trauma state, injured due to the high tension electric lines near 'Lohara' lake. The bird was referred to the 'Transit treatment centre, Nagpur' for further treatment but eventually died.)

Sub-adult Sarus crane dies of electrocution at Malutola

■ NGOs are striving to save endangered Sarus cranes and presently there are around 35 in Gondia district

■ District Correspondent
GONDIA, Oct 5

A SUB-ADULT male Sarus crane died due to electrocution near Malutola village of Dasgaon circle on Friday. Villagers reported the incident to forest officials.

On getting information, forest officials reached the spot and conducted spot 'panchnama'.

Sarus, the tallest living flying bird is endangered in Maharashtra State and is found only in Gondia. Sarus, being listed in the Schedule-IV bird and had been listed as vulnerable in the National list.

As per sources, a group of Sarus cranes was on flying spree in late evening on Friday, in Malutola. Suddenly, the sub-adult Sarus aged around two years allegedly came into contact with live wires



Carcass of Sarus Crane.

of the high tension electric lines and was electrocuted.

Villagers informed the matter to forest officers concerned.

On getting information, ACF Sadgir, SEWA's Sawan Bahekar, Range Forest Officer Sushilkumar Nandvate, Wildlife Warden Mukund Dhurwe, Round Officers Raut and Durrani with forest team reached the spot and recovered the carcass.

Veterinarian Dr Borkar conducted the postmortem after which the carcass was assigned to flames.

It may be noted that volunteers of NGOs are striving to save the endangered Sarus cranes and as a result the number of birds has risen to around 35 in Gondia district. But because of poisoning, electrocution, etc. every year few deaths are reported and few of them remain unnoticed, it is alleged.

Environmentalists and bird lovers from Gondia district have opined that authorities concerned should take necessary measures to curb such electrocution incidents to protect birds and wildlife.

FIRST COLUMN

Sarus crane found dead

■ Our Correspondents
GONDIA, June 29

A SUB ADULT sarus crane was found dead in a farm at



Dasgaon on Tuesday morning. The bird is said to be electrocuted due to power supply cables. Importantly, just recently census of sarus cranes was done in the district. SEWA (Sustaining Environment and Wildlife Assemblage) President Sawan Bahekar informed that the victim crane was born this year only and got separated from parents. The bird was found dead in the field by Bhelekar.

(Left Picture: On 5th October 2019, a sub-adult Sarus was found dead due to electrocution at 'Malutola' (Dasgaon), Gondia district.)

(Right picture: On 29th June 2020, a sub-adult Sarus was found dead under the high tension electric lines in the agricultural fields of Dasgaon village.)



Latitude: 21.567172
Longitude: 80.138998
Elevation: 286.23m
Accuracy: 3.8m
Azimuth: 48° (NE)
Pitch: 2.2°
Time: 10-05-2019 11:23
Note: sarus death location

Powered by: AngaraSat

(Picture showing electric lines passing through fields and the spot where a Sarus crane was found dead due to electrocution.)

4) Illegal Sand mining/excavation in river beds:

The entire landscape of Sarus cranes is broadly along the 'Baagh' & 'Wainganga' rivers that flow through Gondia & Balaghat districts. With regular monitoring, it was observed that these river beds are being used as roosting sites by Sarus cranes. Roosting sites are the isolated places where birds come to rest and spend the night on a daily basis and are usually the specific spots for specific individuals. Any disturbances in such roosting sites can possess direct impact upon the long-term existence of species in that landscape.

It has been observed that sand mining or excavation of sand from these river beds goes on even after the permitted timelines and continues throughout the night at many places in Gondia and Balaghat districts. Regular use of dozens of tractors in the river at night certainly affects such roosting sites and may force the individual to abandon the area permanently. This being not the natural cause can definitely lead to local extinction of Sarus cranes from the landscape.



(A pair of Sarus cranes at their roosting site in the river bed of 'Wainganga')

Mitigation measures:

- Sand mining or excavation processes should strictly be executed as per the predefined norms or regulations and at specified locations only.
- To restore and retain the bio-diversity of rivers, some crucial and identified river beds should be banned from mining.
- Mining syndicates or industries should be forced to execute compensatory activities to restore river bio-diversity just like the Corporate Social Responsibility (CSR).
- However, it is to be noted that such actions should not provoke any retaliatory impacts on the existence of resident Sarus cranes of the landscape.



(Picture showing the extent of sand excavation from 'Baagh' river, Gondia district)



5) **Lack of management practices of wetlands:**

Gondia district is entitled as the 'district of lakes'. The core habitat of Sarus cranes is evidently known as the grassy wetlands. Sarus cranes are an indicator of the health of wetlands and the decreasing number of these birds in itself proves or indicates deterioration of the health of wetlands in the landscape. All the management practices of lakes, ponds and other wetlands are irrigation centric and not much is being discussed about the sustainability of these wetlands or their bio-diversity. It's high time we need to include the wetlands for their scientific long term management plan.



(Picture showing deterioration of wetlands in terms of its bio-diversity)

Mitigation measures:

- Drafting management plan for revival of degraded wetlands in accordance with the irrigation department.
- Firm implementation of suggestions proposed by the resource agency.
- Introduction of native species of fishes and vegetation and a strict ban on invasive fish breed which destroy the natural cycle of wetlands.

6) **Bait poisoning:**

Hunting of water birds by local poachers for consumption of meat has been a prevalent practice in Gondia and Balaghat district. It is observed that the poachers and sometimes fisherman poison some grains like rice or wheat and spread them around in the catchment area of lakes near. Sarus cranes that forage throughout the day consume these poisoned grains and die an agonizing death.

Mitigation measures:

- Hunting which is a recognized crime in the Wildlife Protection Act 1972, should be dealt strictly by the concerned government department.
- Awareness among the masses needs to be imparted.



(Sarus crane found dead due to poisoning in grains near 'Panjara' lake, Gondia.)



(Left picture: On 31st January 2011, a Sarus crane was found in a critical condition due to bait poisoning near 'Jhilmili' lake, Gondia. The Sarus died later during treatment.)

(Right picture: A Sarus from our identified breeding pair was found dead due to poisoning near 'Malhi' village, Gondia.)

Sarus crane census by S.E.W.A.:

In order to plan or derive any conservation plan for a designated species, the first step is to understand the status of that species in the said landscape. Consequently, S.E.W.A. has been conducting a Sarus crane census since last 13 years.

Methodology:

- S.E.W.A. conduct annual census of Sarus cranes in the pre-identified roosting sites, that goes on for 2 days, i.e. one day for Gondia district (M.S.) & another day for Balaghat district (M.P.).
- The census is scheduled roughly in the second week of June that is just before the onset of monsoon, which in turn is the breeding season of these birds.
- Since the Sarus cranes travel for a considerably large area foraging throughout the day, it was not possible to conduct a stratified random sampling method of survey.
- With the help of year round monitoring, S.E.W.A. keeps a close watch on almost all of the roosting sites of Sarus cranes in landscape.
- Each of the roosting sites is documented and a team of 2 trained volunteers are allotted per site for the survey. Hence, each site becomes a stratum to be surveyed.
- Each team reaches the spot before sunrise around 5 am (before the Sarus cranes could leave the roost) and document the presence or absence of Sarus cranes on that site. The survey usually lasts for about 3-4 hours.
- All the teams are provided with contact number of every volunteer so that they can inform the adjoining/nearby team members if they have sighted the Sarus cranes. This is done to filter out any probabilities of overlapping of individuals in the census and so that the first documented birds would not be counted again layer.
- Each team is provided with a structured format where the members document the number of Sarus crane individuals sighted, time of sighting and GPS co-ordinates of site. This further helps in filtering any possibilities of overlapping.
- The entire process is repeated exactly in the same manner next day for the other district.
- All the survey forms are then collected and the data is scrutinized for compiling a refined and accurate result of the survey conducted for each districts.

Data of Sarus crane census in Gondia	
Year	Population
2004 - 2005	~6
2006 – 2007	~22
2008 – 2009	~38
2010 - 2011	~45
2011 – 2012	~52
2012 – 2013	~35
2014 – 2015	~38
2015 – 2016	~35
2016 - 2017	~37
2017-2018	~35
2018-2019	~38
2019-2020	~45
2020-2021	~39

S.E.W.A.'s Conservation Activities:

- ✓ S.E.W.A. identifies each breeding pair of Sarus cranes, their home range, nesting sites, etc. through regular visits and patrolling. Regular monitoring aids us to understand the ground realities and also the perception of local stakeholders regarding the existence of Sarus cranes.
- ✓ Through organized sensitization over the course of many years, S.E.W.A. was able to establish a network of interested local volunteers within the villages.
- ✓ S.E.W.A.'s prime focus has always been to secure the breeding-nesting sites.
- ✓ During the onset of monsoon, S.E.W.A. with the help of its monitoring program monitors each breeding pair and correspondingly the nesting sites. Once the nesting is confirmed, we approach the land owner where the bird has constructed the nest.
- ✓ A series of consultative meetings are held with these farm owners, explaining the significance of this indicator bird and its ecosystem services. This is being done from over 15 years.
- ✓ Through regular interactions, we were able to convince some of the farm owners to let the Sarus cranes breed in their farms, not to disturb the pair and in fact protect them from other local miscreants.

- ✓ Our team visits each of the nesting sites with all the necessary protocols every alternate day, in order to keep a check on them.
- ✓ Awareness programs including open interactive sessions with local villagers, addressing their queries and complaints, etc. were organized during pre & post breeding period of Sarus cranes. On an average, S.E.W.A conducts 15 programs throughout the year for generating awareness regarding Sarus cranes among the local villagers as an important stakeholder in conservation. Display of photography exhibitions, informative short films/documentaries, etc. was also a part of the awareness program which draws attention of local villagers.



(Wall paintings done by S.E.W.A. to impart awareness about Sarus cranes near 'Lohara')



(Bird watching drives conducted by S.E.W.A. for school students and interested members)

- ✓ In coordination with district administration, concerned forest department, S.E.W.A. conducted a joint program titled as **‘Sarus-MitraSammelan’** or ‘Sarus friend’s conference’ in 2015. In the conference, local stakeholders including farm/land owners who helped in protection and young enthusiasts/volunteers who helped in monitoring were felicitated with a kit of goods used in their daily chores, along with a certificate of appreciation. This was primarily done to boost their moral and acknowledge their efforts in the field of Sarus crane conservation.



(‘Sarus MitraSammelan’ organized by S.E.W.A. in accordance with forest officials and the frontline staff.)



(Left Picture: Distribution of ‘Kits’ to Sarus mitra as an appreciation of their support)

(Right Picture: S.E.W.A. members)

- ✓ Bird watching sessions are conducted by S.E.W.A. in regular intervals throughout the year for school students across the district. Including students or the upcoming generation in awareness activities has been a major objective for S.E.W.A. This helps in passing on the message of significance of Sarus cranes and the work being done for their protection to the upcoming generation.
- ✓ S.E.W.A. had launched an awareness activity to spread the message about the harmful impacts of the use of pesticides and chemical fertilizers on Sarus cranes and humans as well. Brochures, pamphlets and posters were distributed and pasted on the walls of village premises regarding the same.



**आपके खेतों में सारस पक्षी,
खुशहाली का प्रतीक है**

**लुप्तप्रायः
हो रहे
सारस पक्षी
किसानों के मित्र हैं**

खेतों में थिमेट व
अन्य घातक किटनाशकों
का प्रयोग बन्द करें



धान की फसल के किछे पर नियंत्रण रखने वाले सारस पक्षी हमारी सांस्कृतिक वरोधर हैं

सारस बचाओ अभियान में आपका सहयोग जरूरी है

सारस पक्षी या उसके घोंसले को नुकसान पहुंचाना कृषिजीव (संरक्षण) अधिनियम १९८२ के अंतर्गत दंडनीय अपराध है।
सारस पक्षी के घोंसले या अंडे दिखाइ दें तो उसका संरक्षण करें और नीचे दिये गए दुराचार पर संवर्त करें

वन मंडलिकावली साकराज वन मंडल, साकराज 09424790200	साकराज वरोधर 09420515041 09767575957	अविजीत परिहार 08446455628 08669178109	उप कमंडांतिकावली साकराज वन मंडल, साकराज 09424790201
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**नांदतील सारस ज्या शेतांत
ती शेत राहतील नेहमी खुशहाल.**

**नामशेष
होत चाललेला
सारस पक्षी
हा शेतकऱ्यांचा मित्र आहे**

शेतात थिमेट व अन्य
घातक किटनाशकांचा
वापर करू नका



वर्गाविकांवरील वरीदीवर नियंत्रण ठेवून आमदार उपकार करणारा हा शेत पक्षी आपला सांस्कृतिक वारसा आहे.
मरुफुला रचणे जातून करणे हे आमचे आत कर्तव्य आहे.

सारस बचाव कार्यक्रमात आपणही सहभागी व्हा

सारस, घरेले थिमेट अदी खांबा लुप्तप्राय पोदारणे हा कृषिजीव (संरक्षण) अधिनियम १९८२ अन्वये नुकदा आहे. असे अवरोधनास आमकास जिला व दंड दिला जाकचे
सारस, सारसो घरेले थिमेट अदी दिवाकवास त्याचे संरक्षण करा व खांबीत दिवेलेवा दुराचारीवर संवर्त करा.

उपकरावरोधर गोंदीया वन विभाग, गोंदीया 07182 235388	सुनेल सैरान 09403371390	साकराज वरोधर शेरा संरक्षण, गोंदीया 09420515041, 09767575957
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गोंदीया वनविभाग, गोंदीया

(Posters developed by S.E.W.A. as a tool against the use of harmful pesticides)

PREREQUISITE SUGGESTIONS:

- 1) On the basis of experience in conservation and protection of Sarus cranes from last 16 years, S.E.W.A. strongly advocates declaring the **Sarus crane habitat (landscape) a legal status** for conservation and protection by the concerning authority. Unlike the concept of reserve forest for protection of floral and mammalian aspect of wildlife, there are no structured measures or approaches for the administration to render long term practices for conserving wetland ecosystem.
- 2) Recent research in ecology has proved the significance of drawing a management plan of wetlands, lakes, ponds and rivers for their sustainable existence and to keep them ecologically functional. Hence, there is a strong need to construct a long term management plan for wetlands by experts, wildlife biologists, resource persons and local stakeholders.
- 3) To undertake carefully designed dispersal studies of the young birds and the annual movement pattern of resident birds. This would render an opportunity to derive efficient management protocols. The dispersal studies to be monitored with scientific 'Radio-telemetry methods'. S.E.W.A. offers its resources to conduct these studies in accordance with the forest department.
- 4) To conduct & document a research comprising of subjects like the socio-economic status of the landscape, designated land-use by the Sarus cranes & humans and further compile the data for management plan including local stakeholders, District planning committee, village committees and land owners.
- 5) Given the work done in various strata's and experience of over 17 years in Sarus crane conservation, S.E.W.A. would kindly advocate to be appointed as the resource agency in deriving or initiating further actions to be taken in future for the conservation and management of 'Sarus crane landscape' in Gondia & Balaghat district.

S.E.W.A. core committee members:

- 1) Mr. Sawan Bahekar, President
- 2) Mr. Chetan Jasani, Vice-President
- 3) Mr. Ankit Thakur, Wildlife Biologist & Secretary
- 4) Mr. Bharat Jasani, Mentor
- 5) Mr. Avijit Parihar, Member
- 6) Mr. Shashank Ladekar, Member
- 7) Mr. Dushyant Akre, Member
- 8) Mr. Kanhaiya Udupure, Member
- 9) Mr. Vikas Farkunde, Member

We are obliged to receive regular consultations by Mr. K.S. Gopi Sundar, Director, Program SarusScape, The International Crane Foundation (ICF) as our guide and look forward to render our best services in conserving mother nature and the beloved Sarus cranes!

ANNEXURE

CASE STUDY- I :

Sarus cranes which are now found only in the northern parts of Gondia district were once wide spread within the district boundaries. A very old picture captured by one of the naturalist in 1970's recorded at least 32 individual Sarus cranes in the 'Nawegaon' & 'Shringarbandh' lakes, which in fact forms the southern region of district. This evidently indicates a rampant decline in the population dynamics of the species within a small district. These lakes were already known for the diversity of their migratory as well as resident avian fauna since a long time. Since then a sharp decline in Sarus numbers were observed and it was in the year 30/07/2011, POR No. 132/24 that the last remaining pair of the species was found dead in the 'Gothangaon' beat area of 'Nawegaon' region. The reason of death was later found out to be bait poisoning, i.e. poisoning in the form of grains that were spread by the local poachers or water bird hunters.

Genetic diversity and vigor in the gene pool forms the basis of a healthy progeny and the long term sustainability of any species. Such disappearances of an entire species from a landscape without any natural reason, inevitably signifies the threat of extinction the existing Sarus cranes are facing! If strict actions or amendments in the management plans are not done, Maharashtra could soon lose the only existing population of world's tallest flying bird in a similar fashion.



The image captured by veteran wildlife enthusiast Shrinarayan Dongarwar (Dada) at Nawegaon bandh lake. The congregation of Sarus witnessed by Arayan Maharshi Shri Maruti Chittampalli in 1971.

उन्हाळ्यात नवेगाववाघ तळ्याकाठच्या झिलानी पार ओढून जातात. त्यातील गवत, गाद, देवनाळ आणि देवघान सुकून जाते. सरण्यातील चिखलपणी सुकून गेल्या असे वाटत असले, तरी चुकून जरी तप्त प्रदेश केला की पाह त्या फसव्या. चिखलत रुतू लागतात. पक्षीनिरीक्षण करताना एकदा मी पाहता पाहता गुडघाभर चिखलात रुसलो. बरोबरच्या साथीदाराने मला हात देऊन वाहेर ओढून काढले. जे शहाणपण गुराढोराजवळ असते, ते शिकायलदेखील माणसाला जीवघेण्या प्रसंगातून जावे लागते. कमळवनाच्या भागातील पाणीदेखील दिवसांदिवस आटू लागते. चिखलतील कमळांची रुंद पानेदेखील कडक उन्हात

उभा होता. कसलपक्षी आवाज ते करीत नव्हत. क्वचितच मावळच्या सूर्यप्रकाशात त्यांचे नारंगी डोळे चमकत. सारसाएवढा मोठा पक्षी भारतात नाही. उंच लाल पाय व लांब मान असलेल्या या राखी रंगाच्या पक्ष्यांचे डोळे व मान तांबड्या रंगाची असतात. नरभादी विसावला सारखे असतात. परंतु थारकाईने निरीक्षण केल्यावर आढळून येईल की, मादी आकाराने नरापेक्षा किंचित लहान आहे.

तळ्याकाठच्या निरीक्षण मनोऱ्यात वसून मी त्यांच्याकडे दुर्बिणीतून पाहत होतो. वाटले, त्यांच्यात मूकपणे कसले हितगुज चाललेय ! सूर्य मावळला, जिकडे तिकडे संधीप्रकाश पडला. त्या संधीप्रकाशात सारसांच्या थव्याकडे पाहणे म्हणजे एक अमृतपूर्व आनंदच

असा. संधीप्रकाशाही खऱ्यातील एखाद्या सुंदर दृश्याप्रमाणे हळुहळू नाहीसा झाला. वडोल पक्षी एरवी तुम्हाला एकटे-दुकटे चरताना व गाताना दिसतात. पण सार्याकडे झाली की, त्यांचे थवे आकाशातून इकडून-तिकडे उडताना दिसतात. हळुहळू ते उघारात विलीन होतात.

पण तळ्याकाठी अंधार असा कधीच नसतो. त्यातील पाण्याच्या प्रकाशाने काठ उजळलेला दिसतो. आकाशात मध्यावर असणाऱ्या अष्टमीच्या चंद्रप्रकाशात सारसांचा थवा स्पष्ट दिसत होता. वाटले, अजूनही मंडळी अशीच का उभी ! थोड्या वेळाने सारस पक्षी आजूबाजूच्या तळ्याकाठी पांगले व चरू लागले.

असा त्यांचा 'शब्देविण संवाद' दोनतीन दिवस चालू होता. ठरल्यावेळी सूर्यास्तापूर्वी ती सारीजण त्या जागी वर्तुळाकार गोळा व्हायची. चौथ्या दिवशी आश्चर्य घडले. आता त्यांच्या जोड्या तयार झाल्या. त्यांना कंठ फुटला. त्यांचे मधुर कूजन ऐकू येऊ लागले. जोडीने ते एकमेकांचा अनुनय करू लागले. त्यांचे नृत्य

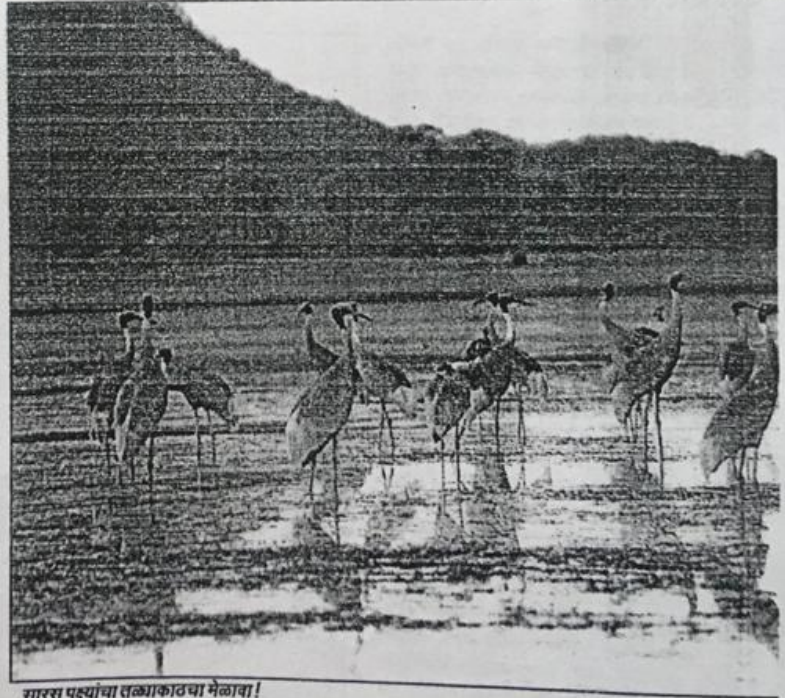
तळ्याकाठचे कूजन

- मारुती चितमपल्ली

कोमेजू लागतात. दिवर त्यातील कमळ-कंद ओढून वाहेर काढतात. खस गवताचे नुसते बुडखे दिसू लागतात. दिवरांना तळ्याकाठी मासळी मिळेनाशी होते. तेव्हा ते तळ्याच्या खोल भागात मासे पकडताना दिसतात. शेकडो वर्षांपूर्वी पाण्याखाली बुडालेले झाडांचे खुंट एखाद्या शिल्पकामाप्रमाणे पाण्याच्या पातळीवर डोकावू लागतात. भर दुपारी एखादा माशांचा मोठा कळप इकडून तिकडे पाण्यातून विहार करताना दिसतो. त्यांनी व्यापलेला पाण्याचा पृष्ठभाग धांदीप्रमाणे चमकू लागतो. तो कळप एखाद्या अजरुजर जीवासारखा एकसंध दिसू लागतो. आरशाप्रमाणे स्वच्छ अशा पृष्ठभागावरून सूर्याचे किरण चोहोकडे परावर्तित होतात. अशावेळी तळ्यातील पाण्याकडे दृष्टी टाकणेदेखील शक्य होत नाही.

पावसाची अपेक्षा घेऊन जून महिना येतो. पयनीगावाजवळच्या तळ्याकाठी अजूनही जागजागी पाण्याची रुंद, उथळ डबकी आहेत. अशा वीतभर खोल पाण्यातील भागात आजूबाजूच्या तळ्यातून सारस पक्ष्यांचे आगमन होऊ लागले. पाहता पाहता सूर्यास्ताच्या सोनेरी प्रकाशात सुमारे चाळीस सारसांचा थवा तैथे वर्तुळाकारात गोळा झालेला दिसला. उन्हाळ्यात सूर्यास्त लवकर होत नाही. कितीतरी वेळ पश्चिमकडच्या क्षितिजावर सोन्याचा गोळा तळपत असतो.

सारस पक्ष्यांचा थवा त्या रिगजात शांतपणे



सारस पक्ष्यांचा तळ्याकाठचा मेळावा !

CASE STUDY – II:

In the year 2006, the foremost days of identifying and understanding the occupancy of Sarus cranes in the landscape, S.E.W.A. members along with other activists found the first nest of cranes at 'Ghattemni', a village in Gondia district surrounded by lush paddy fields. Till then the information about nests were restricted to farmers of those remote villages. A team of S.E.W.A. members and others initiated sensitization among local villagers, explaining about the significance of Sarus cranes in their fields, something which was nowhere else present in the entire state of Maharashtra. Mostly, the young enthusiasts from village seemed interested and later started joining the team members in regular monitoring activities. Since these candidates were the primary stakeholders and were the ones daily present around the fields of nesting areas, they became the first hand informers and volunteers for the Sarus cranes. S.E.W.A. members conducted several awareness programs in the village and schools nearby. Through repeated consultative meetings and interactive sessions, the volunteers became the real stalwarts in the early days of conservation activities. These volunteers along with other villagers formed the basis of information sharing network. They would inform team members and forest department officials about any miscreants that would disturb the routine activity of Sarus cranes during nesting period. There were incidences when these volunteers treated and assisted an orphaned pair of juvenile Sarus without seeking any financial assistance from others. The affection grew gradually among the villagers and Sarus cranes became the pride of 'Ghattemni'. This became the first model of participatory management by S.E.W.A. and later formed the basis of our work.

Since 2006 till now, Sarus crane pairs have been nesting every single year in the agricultural fields of this village and have been raising their progeny successfully almost every single breeding season.



(Pictures taken in 2007 showing young volunteers of 'Ghattemni' along with S.E.W.A.'s Sarus-Program coordinator late Mr. MuneshGautam, treating and taking care of orphaned juveniles of Sarus cranes.)