
ASSESSING ROLE OF SATELLITE WETLANDS AROUND LAKE OL' BOLOSSAT, KENYA FOR THE CONSERVATION OF ENDANGERED GREY CROWNED CRANE

1ST QUARTER PROJECT FIELD REPORT

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EXECUTIVE SUMMARY

The grey crowned crane is endemic in Africa and its population has been declining at a rate of 80% in the last 45 years, leading to it being listed as endangered in the IUCN Red Data List. This project aimed at assessing the role satellite wetlands around Lake Ol'Bolossat play in conservation of Grey Crowned Crane. During the first quarter of the project, we have been able to achieve the following specific objectives:

- Thirty-six satellite wetlands mapped and size of Grey Crowned Crane population in the satellite wetlands determined.
- Twenty-five satellite wetlands prioritized based on their significance for Grey Crowned Crane conservation and questionnaire survey conducted in twenty sites.
- Critical habitat, especially for breeding and foraging habitat established and also breeding activity and breeding success monitored.
- Potential threats to breeding sites for the species established and engage surrounding community in conservation of the Grey Crowned Crane.

Overall, the project will contribute to stabilizing and reversing the declining population trend of Grey Crowned Crane and strengthen conservation and protection of Grey Crowned Crane and its habitat through active local participation.

SUMMARY OF ACTIVITIES

Objective 1: Mapping and Population Assessment

Achievement: During the first three months, a comprehensive mapping exercise was successfully conducted in the satellite wetland areas. This mapping effort covered a total of thirty-six sites within a radius of twenty kilometers from Lake Ol'Bolossat. Additionally, a population size assessment of the Grey Crowned Crane was carried out, providing valuable data for conservation efforts.

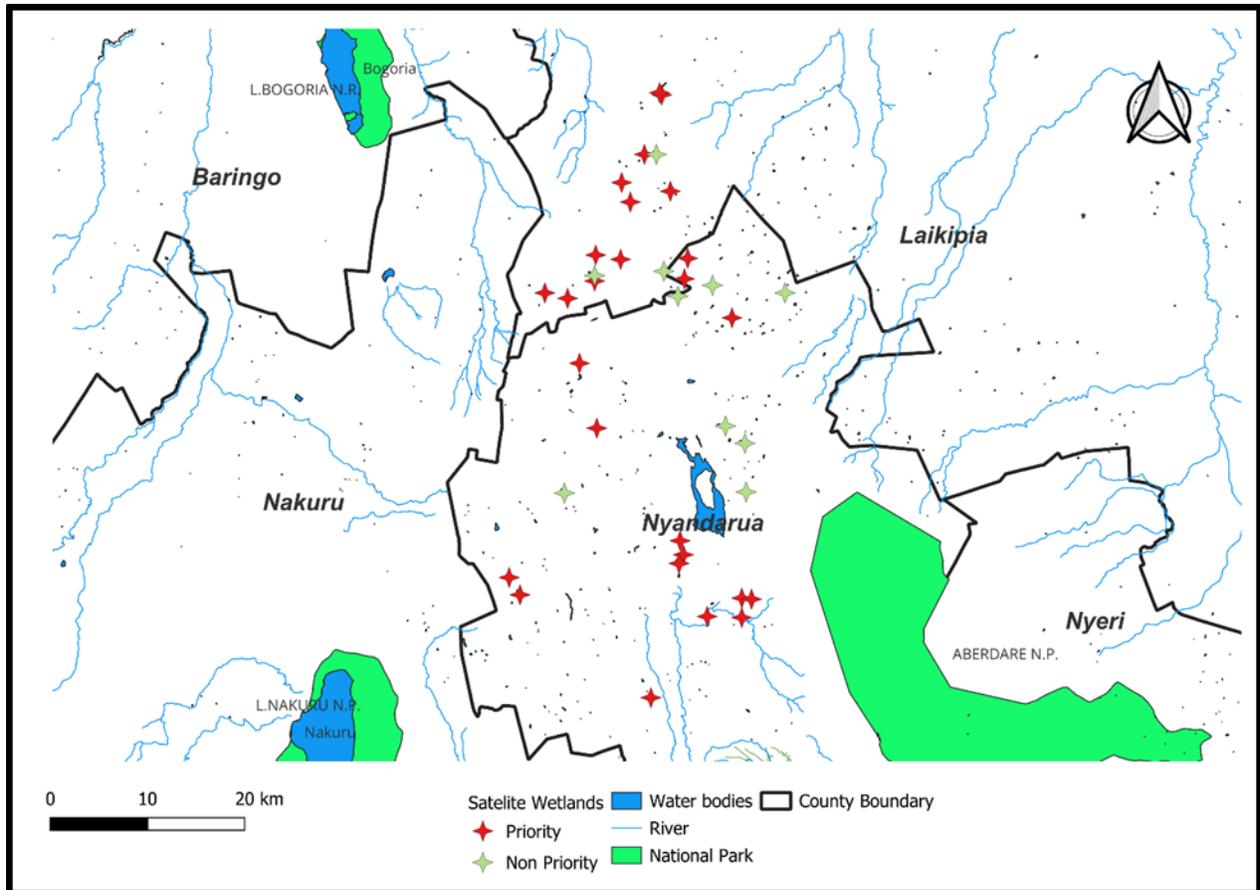


Fig 1: The map showing the thirty-six satellite wetlands that were visited during the project.

Objective 2: Prioritization and Questionnaire Survey

Achievement: During the first three months, twenty-five satellite wetlands were prioritized based on their significance for Grey Crowned Crane conservation. A structured questionnaire survey was also executed to gather essential information about these satellite wetlands. This survey involved engaging with local communities and stakeholders to understand their perspectives and concerns regarding crane habitat and conservation. Twenty satellite wetlands have been visited and questionnaire survey conducted, five satellite wetlands remain for analysis to be completed.

Objective 3: Establishing threats, Critical Habitat and Monitoring of Grey Crowned Crane

Achievement: During the first quarter, significant progress was made in the establishment of critical habitats, with a particular focus on areas crucial for threats, breeding and foraging activities of the Grey Crowned Crane. This included habitat restoration and protection measures aimed at creating a suitable environment for crane breeding and foraging.

Breeding Activity and Success: Breeding activity of the Grey Crowned Crane was monitored closely during this time. Data collected indicate positive signs of breeding activity, with observations of nesting and chick-rearing activities. We have managed to successfully be monitored the fledging of two chicks at Lamutia wetland and two in Limunga further breeding activities will be shared in subsequent reports.

Threats: Threat to the satellites were observed during the survey and each priority wetland classified according to the nature of threats. The categories included threats affecting the breeding sites, threats leading to loss of eggs and chicks and threats to cranes after fledging.

Threats	Specific threats observed	Name of the Satellite wetlands
Threats affecting breeding sites (wetland habitats)	Harvesting of macrophytes	Limunga wetland, Gathara wetland, Mathakwa wetland
	Livestock (overgrazing)	Silale wetland, Huhirio wetland, Limunga wetland
	Invasive/introduced species	Smith dam, Shamanei dam,
	Encroachment	Losogwa wetland, Jebi dam, Limunga wetland, Gathara wetland, Njunu swamp
	Fishermen, boat riders' activities	Smith dam, Mugamba ciura dam
Threats leading to loss of eggs and chicks	Livestock (trampling)	Silale wetland, Gathara wetland, Captain wetland,
	Predation	Gwa Chege dam, Sironi dam
	Poaching (eggs and chicks)	Loitanet wetland, Huhirio wetland, Limunga, Mathakwa wetland, Kiriia wetland, Njigari wetland, Gathara wetland, Njigari wetland,
Threats to cranes after fledging	Poisoning (due to crop damage)	
	Poaching (snaring)	Robert dam
	Electrocution and collision with power lines	Huhirio wetland
	Land use changes (subdivision, fencing, conversions, crops)	Huhirio wetland, Kiriia wetland

During the initial survey it was noted that poaching of eggs and chicks is common in most wetland and that why working with Kenya Wildlife Service is important because as law enforcing agency, we can reduce the vice. We will continue monitoring the wetlands to unearth potential threats and possible ways of addressing them.

Objective 4: Community engagement to create awareness on conservation of Grey Crowned Crane

School Awareness: This activity involved conducting awareness in three primary schools. The primary issue addressed was the collection of eggs and killing of young chicks by primary pupils near the wetlands especially the boys.

Community awareness: Community engagement is not just important but often essential for the successful conservation of cranes. Involving and empowering local communities in conservation efforts can lead to more effective and sustainable results, benefiting both the cranes and the people who share their environment. During the first quarter we engage communities in two meetings. At Rurii, we enlighten leaders on conservation of cranes, the participants included three KWS officers one Assistance Commissioner two chiefs, six assistance chiefs, four village elders, three agricultural /livestock officers and one victim of hippo attack. The second one was community engagement at Karandi area where thirty-six members attended (twelve men and twenty-four women).

Objective 5: Raise awareness about importance of conserving the cranes to locals, educate the pupils on the threats posed by egg collection and young's chick's killings and encourage a change in behavior to protect the cranes nests.

Activities: Educational awareness to communities, interactive engagement with pupils. These sessions included the presentation, videos and discussion about the importance of cranes in the local ecosystems and threats they face.

The campaign has successfully increased awareness among the primary pupils and community members about the importance of cranes conservation and the detrimental effects of collecting eggs and killing if chicks.

Discussion: The achievements of these objectives represent substantial progress toward the conservation of the Grey Crowned Crane and their habitats in satellite wetlands. Mapping and population assessment provide essential baseline data, while prioritization helps focus conservation efforts on high-priority areas. The questionnaire survey aids in understanding local perspectives and involving communities in conservation initiatives.

The establishment of critical habitats and monitoring of breeding activities are critical steps in ensuring the long-term survival of this endangered species. The observed signs of breeding activity and chick-rearing are promising indicators of success in crane conservation.

Conclusion: The achieved objectives are significant milestones in the ongoing conservation efforts for the Grey Crowned Crane and their habitats. These accomplishments lay the foundation for continued conservation work, aiming to protect and enhance the crane population and their ecosystems in the wetland and satellite wetlands.

Next Steps: Moving forward, the conservation efforts should include ongoing monitoring, community engagement, and awareness campaigns. Collaboration with local stakeholders and communities remains vital for the success of these conservation initiatives.

Acknowledgments: We extend our appreciation to all team members, Kenya Wildlife Services, Local administration and other conservation organizations, and communities involved in the successful execution of these objectives. Their dedication and support have been instrumental in achieving these milestones.



Fig 1&2: Two dams covered by Salvinia Molesta, an invasive species that has affected many wetlands by depleting the native vegetation which cranes, and other waterfowl use for breeding. Fig 2: A crane sitting on eggs surrounded by Salvinia molesta later the nest was washed away by water after rains.



Fig 3: One egg left after boys were found collecting them then ran away Fig 4: Engaging with locals while surveying the status of the wetlands.



Fig5: Engaging with Kenya Wildlife Service warden after hippo destroyer two nest at Roberts dam. Fig 6: Engaging pupils of Kwajiku primary school on cranes conservation.



Fig7&8: Three fledged chicks in (two in Lamutia wetland and one in Limunga wetland).