AN INTERTWINED FUTURE:

Cranes, Wetlands,and Communities in Uganda

Photo by Kahangye Kagwa

International Crane Foundation

How do you protect the bird that wears a golden crown—the living emblem of Uganda herself—when the very wetlands she calls home are disappearing, farmers are poisoning birds out of desperation, new power lines are cutting through crane flyways, and communities cannot choose conservation over survival?

You build the conditions in which conservation becomes the rational choice.

You trust Uganda's farmers, women, youth, and local leaders as the true custodians of their land. You address the health needs, the agricultural challenges, the water access, the governance gaps, and the human-wildlife conflicts simultaneously. These are not separate problems. They are one problem, requiring interlocking strategies deployed with patience, rigour, and genuine respect for the communities at the centre of it all.

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Uganda's Wetlands

A National Asset...

Uganda is one of Africa's most generously watered nations. Lake Victoria, the world's largest tropical lake and the primary source of the Nile, sits on its southern border. Hundreds of rivers thread through the hills of the southwest, their floodplains giving rise to papyrus swamps, seasonally inundated grasslands, and the dark, fertile valley-bottom wetlands that have sustained human settlement in this landscape for millennia. Wetlands cover approximately 13 percent of Uganda's total land area. This is an extraordinary endowment by any regional standard.

Uganda's wetland systems are not merely scenic. They are infrastructure. They filter water for millions of people who live far from a municipal treatment plant. They regulate flooding that would otherwise devastate the low-lying farms of the southwest. They recharge the aquifers that rural communities depend on through dry seasons that are becoming longer and less predictable under climate change. They provide nursery habitat for Uganda's freshwater fisheries, which employ over a million people and supply approximately 40 percent of the country's animal protein. They sequester carbon. They buffer the extreme rainfall events that are increasing in frequency across East Africa. They harbour a rich diversity of medicinal and aromatic plants, which millions of Ugandans rely on for healthcare, cultural heritage, and livelihoods. Thus, losing wetlands is an economic and human injury, as well as an environmental loss.

...Under Pressure

And Uganda is losing them—more than 5,000 hectares every year. The losses are concentrated in the agricultural southwest, in the catchments of the rivers that feed Lake Victoria. What is driving this wetland loss? First and foremost, it is human population pressure and poverty.

Uganda's population stands at more than 45 million and is growing at close to 3 percent annually, one of the fastest rates in the world. The population is projected to double by 2040. Human population density in the International Crane Foundation's project areas is among the highest in the country. High population growth subdivides land, increases resource pressure on wetlands, and reduces household resilience. The average farm has been subdivided across generations until it can no longer reliably feed the family that holds it. In this context, the wetland at the bottom of the valley becomes a last option. Understanding this is the beginning of everything ICF does.

Uganda's Grey Crowned Crane: A National Symbol in Crisis

The Grey Crowned Crane *(Balearica regulorum)* stands on Uganda's national coat of arms, an emblem of grace, resilience, and national identity recognised by every Ugandan child. Despite its revered status in Uganda and across its range, the Grey Crowned Crane is a globally Endangered Species on the IUCN Red List. In many countries where they once thrived, Grey Crowned Cranes have become rare and highly threatened. Uganda remains the stronghold for this species, supporting about 40 percent of the global population, but has many fewer cranes than in the past. The 2023 national census documented 13,803 Grey Crowned Cranes, down from an estimated population of 35,000 in 1985.

The key challenge for Grey Crowned Cranes is habitat loss and degradation. The majority of Uganda's crane population is threatened by the encroachment of agricultural landscapes on the wetlands where cranes breed and roost. Wetland vegetation is replaced with crops, and often these wetlands are drained to improve crop production. Soon, cranes must abandon these degraded wetlands in search of alternative feeding grounds. Other problems soon follow. When cranes feed on crops, they come into conflict with impoverished farmers who attack or poison them. Cranes on agricultural lands are more easily captured for domestication and illegal wildlife trade. Cranes also are more vulnerable to collision with power lines that traverse their feeding and roosting areas.

Conservation in these heavily populated agricultural landscapes requires a fundamentally different approach than in more pristine areas. It requires conservation programmes developed together with communities, built on trust, economic incentives, and integrated human wellbeing.

Photo by International Crane Foundation

Photo by Gilbert Tayebwa

Diverse Strategies.

One Integrated Programme.

The International Crane Foundation addresses Uganda's conservation challenge with complementary, interlocking strategies. Together, these strategies address the ecological, social, economic, governance, health, and knowledge dimensions of the challenge simultaneously.

We implement our strategies across three of Uganda's most invaluable wetland landscapes, which together harbour over 50 percent of Uganda's Grey Crowned Cranes, support a wealth of other wildlife, and are vital to the livelihoods of millions of people. Rushebeya-Kanyabaha Wetland in Rukiga District provides subsistence agriculture for hundreds of thousands of people and hosts two globally-threatened bird species—the Papyrus Yellow Warbler and Papyrus Gonolek—as well as the near-threatened Congo Clawless Otter, alongside its crane population. The River Rwizi Wetlands span eleven districts—harbouring Grey Crowned Cranes, the Critically Endangered ningu, and a wealth of waterbirds—and support over five million people. The Kiyanja-Kaku Wetland in Lwengo District, an internationally recognised Important Bird Area, supports approximately 100 breeding crane pairs (Uganda's largest concentration) as well as breeding populations of Shoebill Stork, Sitatunga antelope, and hippopotamus.

Applied Research and Monitoring

We collect research and monitoring data that feeds into our adaptive management process, through which we adjust our field strategies based on what interventions are working and what actions require change. We monitor crane populations annually, assess wetland conditions at priority sites, study community attitudes and behaviours, assess climate vulnerability, and document power line collisions. We publish our work in peer-reviewed journals that contribute to global conservation knowledge and reaffirm ICF's scientific credibility.

Partnership Engagement

We nurture strategic collaborations with government agencies including the Ministry of Water and Environment; Ministry of Health; Ministry of Tourism, Wildlife and Antiquities; Uganda Electricity Transmission Company; Uganda Wildlife Authority; National Forestry Authority, and more than 20 district local governments. We partner with academic and research institutions including Mbarara University of Science and Technology, Makerere University, the London School of Hygiene and Tropical Medicine, and the National Agriculture Research Organization. Our health partners include the Margaret Pyke Trust, Rugarama Hospital, and district health facilities across the programme area. Conservation partners include Wetlands International, Living Earth Uganda, the Endangered Wildlife Trust, Rwanda Wildlife Conservation Association, and Wildlife Clubs of Uganda. Our communications and community partners include Uganda Radio Network, the Uganda Wildlife Conservation Education Centre, and St. Jude Family Projects. Each partnership brings complementary authority, expertise, or community access that ICF alone cannot provide.

Community Outreach

We engage with communities to ensure that they understand, own, and value the conservation actions we develop together. We help build community resiliency to withstand the pressure of a drought year, a change of district leadership, or a funding gap. We deliver conservation messages through diverse media, including radio programming in English and local languages, training materials developed with district education officials and teachers, engagement of traditional and religious leaders as conservation champions, and social media and digital communications campaigns calibrated for Ugandan audiences. We also celebrate together with communities, including the National Crane Festival we spearheaded.

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Integrated Conservation and Human Health

We integrate family planning services, maternal health support, water and sanitation infrastructure, and health education into our conservation programming. Our family planning work uses the USHAPE (Uganda Sexual Health and Public Education) methodology, developed by the Margaret Pyke Trust and accredited by the Uganda Protestant Medical Bureau. Working with the Margaret Pyke Trust, the London School of Hygiene and Tropical Medicine, and Rugarama Hospital, this strategy addresses the root human drivers of environmental degradation in Uganda while measurably improving community wellbeing.

Crane Custodianship

More than 150 trained community volunteers, including at least 60 women, serve as the International Crane Foundation's invaluable Crane Custodians. Together, we cover a vast landscape that no staff team could monitor alone. Crane Custodians monitor crane nests and population trends within key wetlands and across agricultural landscapes. They respond to crane incidents including injuries and human-wildlife conflicts, report illegal activities to authorities through Survey123 and other mobile platforms, and carry conservation messages into communities through peer-to-peer communication.

Ecosystem-based Adaptation (EbA)

Ecosystem-based Adaptation is all about nature-based strategies that help people reduce their vulnerability to climate change and associated floods, droughts, and other challenges. We work with farming households to increase productivity on existing land through climate-smart agricultural practices such as integrated agroforestry systems, improved fodder production, and organic soil fertility management. We help farmers use improved crop varieties adapted to shifting rainfall patterns. We promote terracing and contour farming that reduce sediment loads entering wetlands, as well as alternative livelihood enterprises such as mushroom cultivation and beekeeping. We advance Conservation Agreements that link direct livelihood benefits to clearly defined conservation commitments.

Conflict Prevention and Response

We work to reduce crane damage to croplands, and the attacks and poisonings that are often associated with this conflict, by understanding conflict patterns and drivers and assisting farmers with non-lethal crop deterrent methods. We facilitate rapid-response teams that reach incident sites within hours, coordinate law enforcement with Uganda Wildlife Authority and Uganda Police, help find veterinary care for injured birds, and help develop improved evidence collection for successful prosecution. We also offer community education on both the legal consequences of harming cranes and the human health risks of the agricultural pesticides being misused.

Wetland Management Plans

We facilitate the creation and adoption of legally recognised, community-based wetland management plans across our priority sites. These plans establish governance structures, clarify land and resource use rights that are often ambiguous and contested, define ecological restoration priorities, and give communities and governments a shared legal framework for their wetlands' futures. These plans are developed through sustained participatory processes in which all wetland stakeholders, including farmers, herders, fishers, and local government and traditional leaders, negotiate rules and seek genuine consensus. The Kiyanja-Kaku Wetland management plan, for example, is effectively engaging local communities in protecting Uganda's largest Grey Crowned Crane breeding concentration.

Strong Project Management

We implement these intertwined strategies, across more than 20 districts in southwestern Uganda, with strong management systems through our Uganda Country Office and global headquarters. We strive for rigorous financial oversight, adaptive management processes that respond to monitoring evidence in real time, comprehensive monitoring, evaluation, accountability, and learning frameworks, staff development and institutional capacity building, stakeholder engagement and risk management, and transparent donor reporting. These systems are the invisible architecture on which everything else stands.


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The Women at the Centre of This Work

We know that when women are in leadership roles, we can achieve much greater impact from households to communities. The International Crane Foundation assures the deep involvement of women at every level of engagement: at least 40 percent of all Crane Custodians, community group leaders, field staff, and steering committee members are women. The integration of family planning and reproductive health services into ICF's conservation work reflects the same recognition: when women have reproductive autonomy, household trajectories change, land pressure changes, and the conditions for conservation improve in ways that no field intervention alone can achieve.

Women in the communities where we work are the primary managers of household food security, water, and land use, and make the daily decisions that either protect or degrade a wetland at the household scale. They are also the members of those households who most consistently benefit from integrated health and conservation programming. They are most likely to adopt sustainable land management practices when given genuine support, and when they take on conservation leadership roles, they influence their communities with an authority rooted in daily knowledge of the land.

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Building a Better Tomorrow

Picture Uganda in 2035. The River Rwizi runs stronger and cleaner than it has in a generation. It is not pristine, because it is a working river in a farming landscape, but it has measurably improved. The papyrus beds along its banks are tall and dense and full of nesting birds. Farmers in the Rwizi catchment are producing more food from smaller footprints. Their upland plots carry agroforestry systems that have had a decade to establish—fruit trees, nitrogen-fixing species, and improved pasture grasses that keep livestock off wetland margins without reducing the household's productive capacity. The Conservation Agreements they signed with the International Crane Foundation years ago have become habitual land management practices that feel natural because they have shown their benefits in the soil and in the harvest.

Women lead many of the community conservation groups across the project area. The Crane Custodian network has become a permanent community institution, sustained by the communities themselves because they have experienced its value. Young people are managing field offices and presenting research findings at national conferences.

Wetland management plans in the core project districts remain strongly supported through multiple political cycles. They have been updated and strengthened because the communities that helped develop them feel ownership over their implementation.

And the biodiversity impact of all this positive change is clear! Grey Crowned Crane numbers are increasing after years of decline.

Crane poisoning incidents have declined to very few, isolated incidents rather than regular seasonal events. Innovative new deterrent methods have become standard practice among farmers who live near crane habitat. Ecosystem-based Adaptation has given farming households new hope during times of drought and flood. Power line marking programmes, developed in partnership with Uganda's electricity transmission authority, have been implemented across high-risk segments in the major crane corridors of southwestern and central Uganda, and collision mortality has measurably declined. The next national census will confirm gains in the catchments where the International Crane Foundation has worked most intensively. We gather annually to celebrate this news at the National Crane Festival, now in its sixteenth year.

And conservation practitioners from across East Africa come to southwestern Uganda to learn from a programme that has demonstrated, at scale, what integrated conservation looks like when it is conceptualized and developed with communities rather than for them. Uganda has become not only the world's most important country for the Grey Crowned Crane's survival, but the country that showed the rest of the world how to think about saving it.

This is not a fantasy. It is the trajectory that our work has already set in motion. What it requires now is sustained investment from partners who understand that the health of Uganda's wetlands is inseparable from the health of Uganda's communities—and that the Grey Crowned Crane, resplendent in her golden crown, is worth every resource that can be brought to her defense.

Committed to a world where cranes, people, and our natural heritage thrive together.

For more than 50 years, the International Crane Foundation has led innovative community-based conservation programs and research projects to help safeguard the world's 15 crane species and the places they live.

Hatched in 1973 by Dr. George Archibald and Dr. Ron Sauey in Baraboo, Wisconsin, USA, the organization has grown from two people to more than 170 staff with offices in China, Kenya, Rwanda, South Africa, Uganda, Zambia, Wisconsin, and Texas. We work through strong partnerships with local organizations, governments, universities, businesses, and others in these regions. These endeavors have inspired international cooperation, helped improve people's livelihoods, and protected millions of acres of wetlands and grasslands on the five continents where cranes live.

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