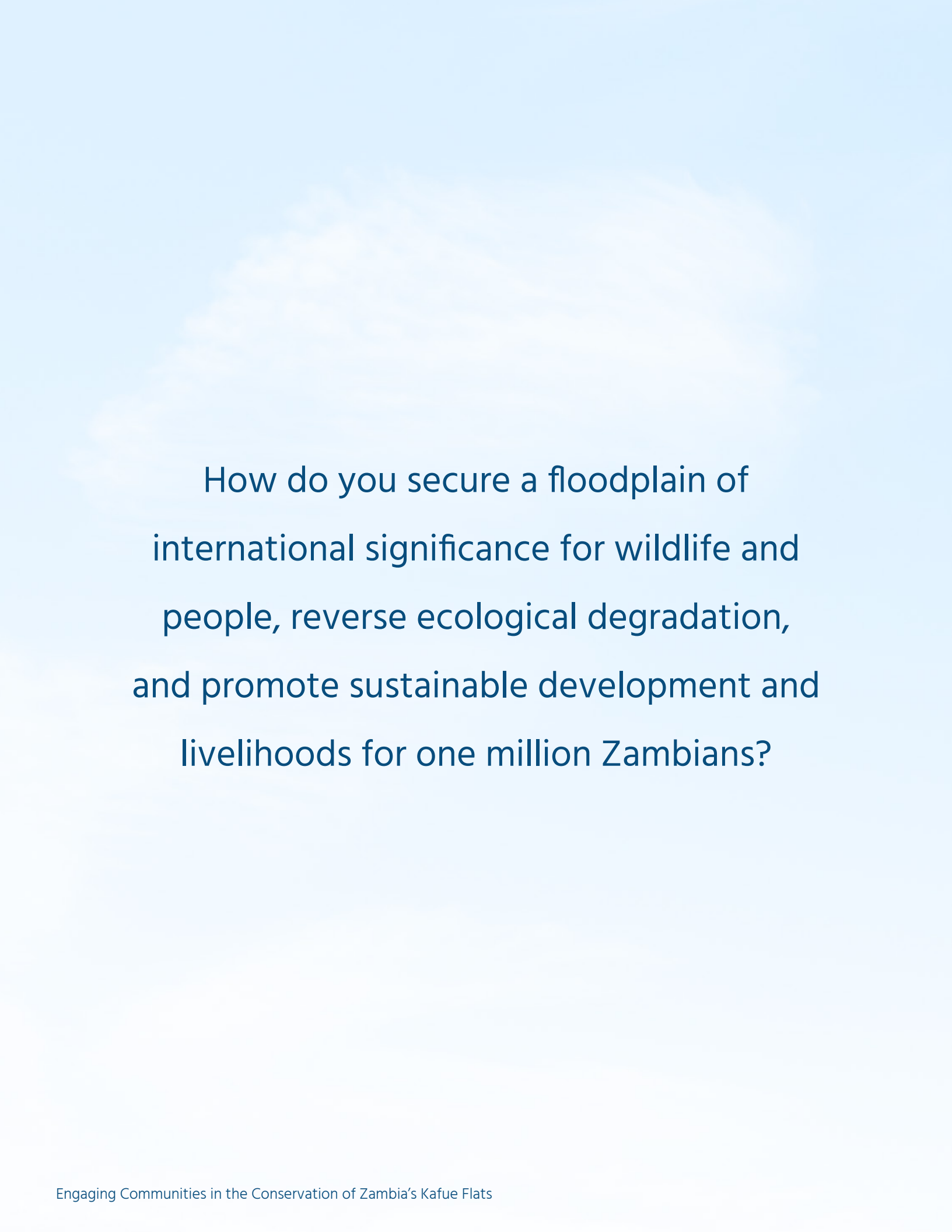




# A THRIVING FLOODPLAIN FOR ALL

Engaging Communities  
in the Conservation of  
Zambia's Kafue Flats



How do you secure a floodplain of international significance for wildlife and people, reverse ecological degradation, and promote sustainable development and livelihoods for one million Zambians?



Create an innovative, integrated  
conservation approach to the protected  
area model which:

Places community members and livelihoods  
at the core of every aspect of protected  
area management and

Builds a strong, mutually trusting  
relationship with the community and a  
shared vision for the future.



# A Thriving Flood

## A Breathtaking Ecosystem . . .

The health of Zambia's Kafue Flats—a 6,500 square kilometer area of wetlands, lagoons, grasslands, and floodplains—is critical to the region's people, wildlife, and national prosperity. Featuring Blue Lagoon and Lochinvar National Parks, the Kafue Flats Game Management Area, and four surrounding chiefdoms, the Kafue Flats is a landscape of astounding natural beauty and striking biodiversity. More than 470 bird species, including the biggest population of one of Africa's rarest birds, the Wattled Crane, as well as Endangered Grey Crowned Cranes and many other species of conservation concern, have been recorded on the Kafue Flats. The vast plains support many large mammals, including the semi-aquatic Kafue Lechwe, an antelope species found nowhere else on Earth, as well as African buffalo, zebra, hippo, and many others. The annual pulse of Kafue River freshwater across the floodplain supports a bounty of fish, amphibians, and reptiles.

More than 300,000 people call the Kafue Flats

home. The people of the Kafue Flats rely directly on the floodplain for fishing, water supply, building materials, food production, and grazing lands. Their societies are profoundly intertwined with the seasonal rhythms of the floodplain, making a healthy Kafue Flats region critical to their ways of life and their culture. The low-lying flooded plains are an oasis of life-giving waters for thirsty people and wildlife during the prolonged dry season that desiccates the surrounding landscape.

Moreover, the Kafue Flats is an economic engine for Zambia. Kafue waters provide 44% of the freshwater for the nation's capital, Lusaka. Irrigated sugar fields produce 90% of the country's sugarcane for domestic and foreign markets. Two hydropower dams on either end of the Kafue Flats produce half of Zambia's electricity. More than 20% of all beef produced in Zambia is grazed on the Flats. Kafue Flats fisheries produce up to 10% of Zambia's total fish catch.



# Floodplain for All

## ... Under Threat

Unfortunately, the ecological integrity of the Kafue Flats is at risk—threatening the diversity of this complex ecosystem and all who depend on its natural resources.

Overgrazing is an enormous challenge. Wealthy cattle owners from distant cities graze their enormous herds freely across the floodplain and protected areas. Domesticated cattle now outnumber wild lechwe and other wildlife by more than five to one. Wildlife and livestock graze unnaturally close together, increasing the spread of disease between animals. Cattle herders disrupt the breeding grounds for waterbirds and other wildlife that breed in seclusion on the grassland plains.

Excessive levels of wildlife hunting have decimated large herbivore and waterbird populations, feeding the demand for bushmeat in distant cities. Fishing communities settle deep on the floodplain—occupying the high grounds needed by Kafue Lechwe for breeding and dispersal during flooding—and over-harvest the floodplain fish stocks with small gill

nets and electroshocking. Gypsum mining scars the landscape, impairing tourism potential, threatening water quality, and disturbing wildlife.

Hydropower generation is changing the timing and extent of river flows, disrupting the seasonal migration of fish and wildlife, reducing their productivity, and exposing them to over-harvest. These changes trigger the proliferation of invasive plants, including the thorny shrub *Mimosa pigra* that colonizes critical wildlife habitats and impedes access to the floodplain. Uncontrolled fires burn much of the Kafue Flats annually.

All these pressures take place against the backdrop of surging human populations and global climate change. Zambia's population is projected to reach 100 million by the end of the century—placing ever-increasing demands on natural resources. Rising temperatures, changing rainfall patterns, and more frequent and severe droughts and floods associated with climate change are further degrading the Kafue Flats.

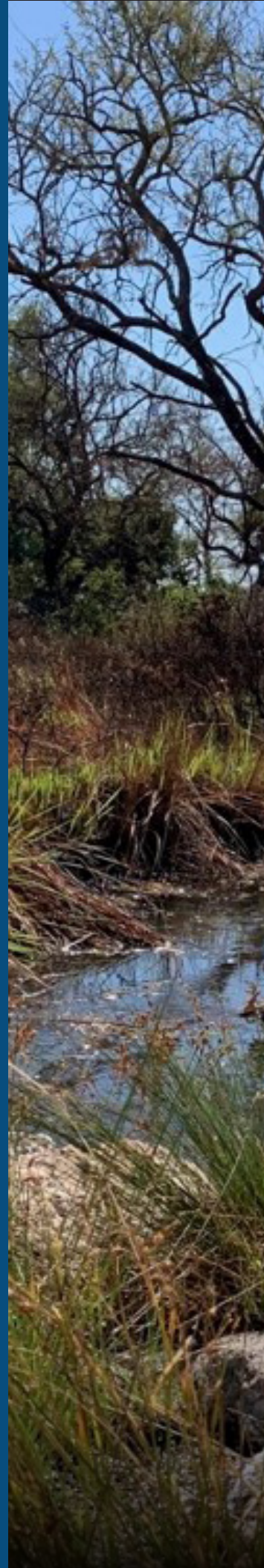
# A Model Approach to Conservation

The Kafue Flats Restoration Partnership is a 20-year co-management agreement between the International Crane Foundation, the Government of Zambia (Department of National Parks and Wildlife), and World Wide Fund for Nature of Zambia to restore abundant wildlife and thriving communities on the Kafue Flats for the long term. The International Crane Foundation is the implementing partner for this innovative agreement, covering both national parks and the game management area. The motto of our partnership is “A Thriving Floodplain for All.”

To succeed in this ambitious effort, the International Crane Foundation turns to the wisdom of the people who have lived and worked on the floodplain for centuries and their economic and cultural needs. Our integrated conservation strategy is the product of years of trust-building and open dialogue with the communities of the Kafue Flats, fostering a deep relationship with the Muwezwa, Shakumbila, Hamusonde, Choongo, Mungaila, Nalubamba, and Mwanachingwala chiefdoms that have depended on the resources of the Kafue Flats since time immemorial.

Through regular meetings conducted at community centers, district offices, and other gathering places across the Kafue Flats, the International Crane Foundation’s community outreach specialists engage with the people who know this floodplain best—the farmers, herders, fishers, harvesters, and other community members who depend on the ecosystem every day to maintain their livelihoods. Community members share their needs for the resources of the flats, their awareness and concerns about the status and future of the floodplain, and their ideas about how to solve these conservation challenges.

From these exchanges, the International Crane Foundation, our trusted partners, and community leaders have developed an innovative approach for restoring and sustaining the Kafue Flats: engage community members in all aspects of protecting, managing, and benefiting from the Kafue Flats. Our approach features four pillars of integrated action:



## The four pillars are:

### **1. Community Engagement & Livelihoods**

Improve basic human needs and income opportunities for local communities as incentives for ecological sustainability and environmental stewardship.

### **2. Law Enforcement**

Strengthen protected area regulation and management to reduce illegal activities and recover wildlife populations.

### **3. Ecological Restoration**

Safeguard critical wildlife habitat by removing invasive species, controlling fires, and improving water conditions.

### **4. Research and Monitoring**

Generate knowledge to support adaptive management and informed decision making.

## Pillar #1:

# Community Engagement & Livelihoods

For more than 50 years, the International Crane Foundation has championed robust partnerships with local communities as an essential part of our efforts to save endangered species and conserve healthy landscapes around the world.

That's why, from our first day working with stakeholders of Zambia's Kafue Flats, we have engaged the local community in every aspect of protecting, restoring, and wisely using the floodplain, magnifying the program's impact and long-term viability. By approaching these communities not as problems, but as ideal environmental stewards, we inspire advocates, ready and willing to support and drive the ongoing work of conservation for the benefit of their families and future generations.

The communities surrounding the Kafue Flats depend on sustainable natural resources from the floodplain to meet their basic human needs and livelihoods. Working together with community-based organizations and their representatives, we've designed a conservation program that offers improved sustenance and new employment opportunities linked to the sustainable management and wise use of

the floodplain—addressing a widespread need for scarce cash income. Innovative new opportunities in development, like Kafue Flats grassfed beef and sustainably harvested fisheries, offer value-added products founded on more sustainable use of land and waters. Climate-resilient fruit trees and vegetables grown in buffer areas outside the flats provide healthy food and income. All these activities reduce pressure on wildlife, inspire environmental stewardship, and contribute to a more sustainable future. They also contribute to the resilience of these communities in the face of climate change.

Together with employment and income opportunities linked to the other pillars of the Kafue Flats Restoration Program, we are creating a win-win model for wildlife and people who depend on protected areas—A Thriving Floodplain for All!







A vertical photograph on the left side of the page shows a soldier in camouflage uniform and a beret, holding a rifle, standing in a field.

## Pillar #2:

# Law Enforcement

For communities to thrive on the Kafue Flats, they also must be engaged in protecting it. While there is considerable protection “on paper” for the Kafue Flats and its wealth of fish, wildlife, and natural resources, government law enforcement is inadequately financed and equipped.

Patrols are physically unable to cover the protected areas adequately. As a result, fish and wildlife populations are being decimated by unregulated levels of hunting, fishing, and livestock grazing.

The International Crane Foundation is working to ensure that law enforcement under the Department of National Parks and Wildlife is well-supported, fully equipped, and highly strategic in reducing illegal hunting of wildlife. We are equipping Wildlife Police Officers and Community Scouts—many of them hired from the local community—with the necessary housing, fuel, food, vehicles, and communication tools for rapid and strategic law enforcement responses to poaching. We are better ensuring their well-being and safety in the field with better healthcare, first aid

equipment, and training. We are also setting up important law enforcement monitoring tools—like the Spatial Monitoring and Reporting Tool (SMART) that enables better decision making for patrol design, vital data collection on animal locations and poaching occurrences, rapid deployment of patrol teams to critical hotspots, and provision of field equipment like radios and critical infrastructure.

By training and deploying men and women from the local community to serve on these law enforcement teams, and caring about their living and working conditions, we are creating conservation jobs that provide important cash income to families and reduce the incentives that drive illegal hunting.

## Pillar #3:

# Ecological Restoration

Communities can also play an integral role in restoring the natural resources they depend on. The International Crane Foundation team, partners, and local communities are working together to reduce the spread of invasive species, control fires and bush encroachment, and support healthy range management.

### Community-based control of *Mimosa Pigra*

For years, The Kafue Flats faced a growing infestation of *Mimosa pigra*—an invasive species of thorny shrub that forms dense, impenetrable thickets that displace native vegetation, choke waterways, and increase sedimentation. From a small infestation in the early 1980s, *Mimosa pigra* spread to cover vast areas of Lochinvar and Blue Lagoon National Parks and the surrounding Game Management Areas, displacing wildlife and people from the Kafue Flats.

In 2017, the International Crane Foundation began hiring local community members to clear the invasive plant from the national parks. More than 90% cover of the invasive weed has been removed, and careful patrols ensure that resprouting shrubs are controlled before they can spread again. As the *Mimosa pigra* is removed, the flagship wildlife species of the Kafue Flats—including Wattled Cranes, Kafue lechwe, and many others—are returning to the reclaimed areas.

Communities benefit from reducing the thorny shrub, but even more importantly, they gain jobs. To date, more than 800 local workers have been engaged to complete the work. Monthly cash payments—appropriately referred to as

“environmental cash transfers” as they provide local employment and produce positive environmental outcomes—have helped improve the lives of the workers and their families. These cash payments enable people to improve their homes, plan for the future, support their children, and improve resilience in times of crop failure. Field workers who clear invasive mimosa use their earnings to:

- Buy livestock such as goats and cows, thus improving their asset base
- Send their children to school by buying uniforms and books and paying school fees
- Maintain their homes
- Pay college tuition fees and leave seasonal employment
- Set up small businesses including local lending and trading
- Secure emergency food supplies

The success of the *Mimosa pigra* project had an additional, important outcome. It advanced goodwill for other conservation campaigns in the Kafue Flats—creating an opening for even more ambitious partnerships in the years since, such as sustainable cattle grazing.

## Sustainable cattle grazing

Another way we can engage communities in supporting and benefiting from ecological restoration is through sustainable livestock management. The Kafue Flats has been a grazing system for cattle and wildlife for millennia. Cattle ownership has great cultural significance in this part of Zambia, and cattle are used for milk, leather products, social relations including weddings and funerals, and emergency cash sales. Beef production is very important to the national economy too. Recently, the Kafue Flats was declared as a Beef Special Economic Zone by the Zambian cabinet.

If grazing densities and patterns are managed sustainably, the Kafue Flats can support these needs and healthy populations of wild herbivores like Kafue Lechwe, buffalo, and zebra.

The International Crane Foundation is partnering with the government, local communities, non-government organizations, and private businesses to work holistically towards sustainable cattle grazing and thriving wildlife on the Kafue Flats, providing management of water, fires, and invasive species, regulation of livestock movements, control of disease, and other range management considerations. We hope to produce a highly profitable grass-fed beef production that can provide more household income with fewer cattle.



## Pillar #4: Research & Monitoring

Community members can also contribute to generating the knowledge and data needed to effectively manage and sustain the Kafue Flats.

The International Crane Foundation is working with the Department of National Parks & Wildlife researchers, university faculty and students, and local community members to monitor restoration efforts, document improvements in the ecosystem, and incorporate learnings into adaptive management of the Kafue Flats floodplain.

A well-designed research and monitoring system helps us answer critical questions about the management of the Kafue Flats and the best ways to reduce threats to species, improve ecological conditions, and support sustainable livelihoods. We generate and disseminate the knowledge required to improve management and restoration of the Kafue Flats and inform policy discussions

and directions. We ensure communities have access to the latest data and information about their homelands.

As part of its integrated strategy for the floodplain, the International Crane Foundation aims to make the Kafue Flats a model wetland for ecological research. Researchers engage with local people to monitor and collect data on biodiversity through fieldwork, aerial surveys, remote sensing, and baseline biodiversity data. Key findings are managed and shared through the Kafue Flats Wetland Information System, hosted by the Global Biodiversity Information Facility, an international network and data infrastructure aimed at providing anyone, anywhere, open access to data about all types of life on Earth.





A photograph of a white crane with a red face and blue crest, standing in a green field with its wings spread. The crane is facing left, and its wings are spread out to the right. The background is a clear blue sky.

# Our Partners

The core of the Kafue Flats Restoration Partnership is the long-term partnership agreement between the International Crane Foundation, the Zambian Department of National Parks and Wildlife, and World Wide Fund for Nature Zambia. Many other partners—local, regional, and global—are essential to the success of this effort. We work on-the-ground with traditional chiefs, government Community Resource Boards, and other community-based organizations. We engage specialized NGOs like BirdWatch Zambia, Self Help Africa, and Solidaridad. We work with a range of government agencies responsible for fisheries, agriculture and livestock, water resources management, tourism, and more. We engage private industries whose businesses depend on the Kafue Flats.

Our partners bring invaluable experience and expertise to problem-solving on the Kafue Flats—deepening the work involved in all four pillars to strengthen community livelihoods, protected area management, ecological restoration, and research and monitoring—and tackling deep challenges like sustainable grazing, sustainable fishing, climate change adaptation and resilience, and water management.

Thanks to the hard work and commitment of everyone involved, we are turning the corner towards a much better future for the Kafue Flats...but there is still so much to be done to recover and sustain this world-class floodplain for future generations.



## Public Awareness

The Kafue Flats Restoration Partnership communicates regularly with government, partners, and communities about the local, national, and international importance of this work for people and wildlife. By creating and distributing content (videos, newsletters, podcasts, etc.) that showcases the beauty of the Kafue Flats floodplain and the collective power of its peoples, the Kafue Flats Restoration Partnership will spark keen interest in the conservation projects underway here, motivating current stakeholders and encouraging future partners to lend their support. The creation and activities of the Kafue Flats Restoration Partnership have already made great progress in drawing attention to the importance of the Kafue Flats, which over the years had become a low priority due to its degradation.

# Goals for the decade ahead...

By 2030, the International Crane Foundation and its partners envision a Kafue Flats floodplain with ...

- Recovering wildlife populations, including increasing populations of the two signature species of the Kafue Flats—the Wattled Crane and Kafue Lechwe
- An open floodplain nearly free of invasive *Mimosa pigra* shrubs, with low-level control efforts to maintain the balance
- Control plans and action for other aggressive and invasive species that threaten the ecological integrity of the floodplain
- Improved fire management and reduction in damaging wildfires
- Reduced grazing density on the floodplain, with well-managed grazing associated with the two national parks
- Reduced fishing camps in the national parks and regulation of sustainable fisheries practices
- A reduction in wildlife disease, coupled with safe and effective response measures when disease outbreaks occur
- No mining and prospecting in the national parks
- Improved water management on the floodplain, including environmental flow releases from the hydroelectric dams that better mimic the natural, seasonal pulse of Kafue River floodwaters and provide vital dry season freshwater to combat drought and climate change
- Community Resource Boards empowered to effectively engage in the management and sustainable development of the Kafue Flats and advocate for their needs and interests
- Traditional rulers who are supportive of the Kafue Flats Restoration Partnership and appreciate the benefits they receive from sustainable floodplain management
- New boreholes (more than 30) in the upland surrounding the Kafue Flats to provide alternatives for drinking water, livestock, and gardening
- Innovative new livelihood programs under trial, linked to sustainable grazing, fisheries, and upland land use, and grounded in climate-resilience land use practices
- More than 60 new jobs for community members to serve as law enforcement scouts
- More than 100 new jobs for community members in ecological management, including *Mimosa* clearance, sustainable grazing, and other activities
- Increased public awareness and education of the Kafue Flats Restoration project and its benefits, including providing information in relevant languages
- Increased local, national, and international awareness about the success and impact of the Kafue Flats Restoration Partnership.

These goals not only contribute to a better future for the Kafue Flats and its people and wildlife, but also align directly with the national mandates of the Government of Zambia, as expressed in the government's *Vision 2030* and *National Adaptation Plan for Zambia* and the *Second National Biodiversity Strategy and Action Plan*, and the *Eighth National Development Plan*.

## ... and Beyond

The International Crane Foundation's vision of 'A Thriving Floodplain for All' also aligns with the international commitments of the Government of Zambia to address poverty, climate, biodiversity, and freshwater crises. The Kafue Flats Restoration Partnership is dedicated to advancing many of the United Nations' 17 Sustainable Development Goals.

## No Poverty, Decent Work, and Economic Growth

By generating employment opportunities in innovative, community-driven wetland restoration and law enforcement programs, and by enhancing staff welfare through improved health screening and training, the Kafue Flats Restoration Partnership is contributing to poverty reduction on the Kafue Flats—thereby addressing one of the root causes of degradation.

## Climate Action, Life Below Water, Life on Land

Working alongside local communities to develop sustainable livelihoods and husbandry practices and expand ecological restoration efforts, the Kafue Flats Restoration Partnership is empowering the peoples of the Kafue Flats to increase climate change resilience, biodiversity, and wetland management.

## Peace, Justice, and Strong Institutions

By recruiting, training, and deploying new community scouts; providing service training in human rights, prosecution, evidence-gathering, and documentation; and promoting cooperation with other law enforcement agencies to increase the effectiveness of existing anti-poaching laws, the Kafue Flats Restoration Partnership contributes to the enhancement of sound governance in the region.





## **Our vision for a region restored...**

We envision a Kafue Flats where Wattled Cranes, Grey Crowned Cranes, pelicans, storks, geese, ducks, vultures, and many other birds fill the skies and marshes. Vast herds of Kafue Lechwe—with zebra, buffalo, and wildebeest—safely roam the grassland floodplains and drink from the Kafue River and its wetlands. Roaring hippos breach deep pools of clear water, surrounded by crocodiles and otters that adorn riverbanks free of invasive plant life. Bream and other fish species swim in nurseries of water and plants—a bountiful resource for wildlife, fishing, households, and the economy.

Delighted school children, dedicated birdwatchers, and other park visitors will marvel at an abundance of natural beauty, while local communities will take pride in their natural heritage. Meanwhile, researchers will continuously monitor ongoing conservation and restoration efforts, documenting improvements in the ecosystem, incorporating new knowledge into the adaptive management of the Kafue Flats floodplain.

Meanwhile, life will change for the local communities who make all these dramatic improvements possible.

On the restored Kafue Flats floodplain, local people will find direct employment working in protected areas, while learning skills that will serve them a lifetime. They will enjoy healthier livestock with better returns, and reliable income from sustainable levels of fishing. They will benefit from improved management and governance capacity today—and, eventually, the distribution of benefits from carbon offsetting, tourism, and other nature-based solutions.

The International Crane Foundation seeks supporters and partners who are equally committed to making 'A Thriving Floodplain for All' a reality in Zambia's Kafue Flats.

