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KIPSAINA CRANE AND WETLANDS CONSERVATION GROUP

Kenya

Equator Prize Winner

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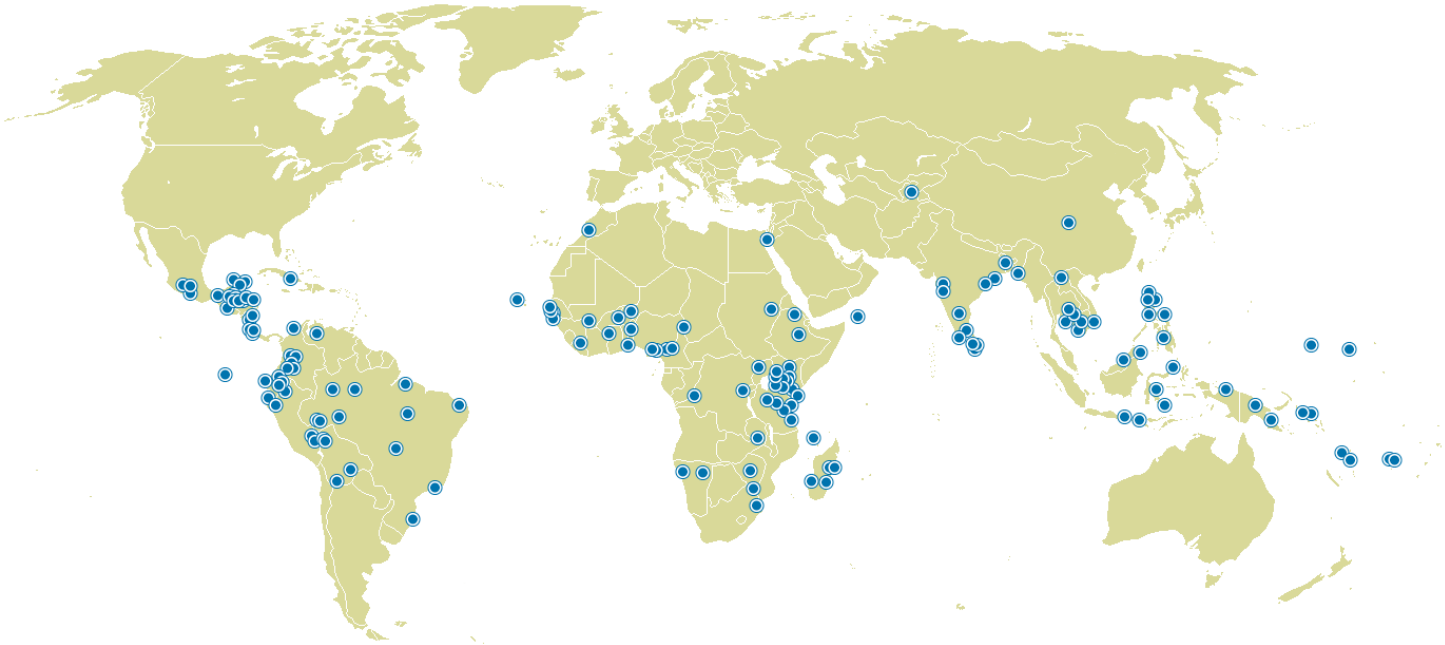
UNDP EQUATOR INITIATIVE CASE STUDY SERIES

Local and indigenous communities across the world are advancing innovative sustainable development solutions that work for people and for nature. Few publications or case studies tell the full story of how such initiatives evolve, the breadth of their impacts, or how they change over time. Fewer still have undertaken to tell these stories with community practitioners themselves guiding the narrative.

To mark its 10-year anniversary, the Equator Initiative aims to fill this gap. The following case study is one in a growing series that details the work of Equator Prize winners – vetted and peer-reviewed best practices in community-based environmental conservation and sustainable livelihoods. These cases are intended to inspire the policy dialogue needed to take local success to scale, to improve the global knowledge base on local environment and development solutions, and to serve as models for replication. Case studies are best viewed and understood with reference to '*The Power of Local Action: Lessons from 10 Years of the Equator Prize*', a compendium of lessons learned and policy guidance that draws from the case material.



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KIPSAINA CRANE AND WETLANDS CONSERVATION GROUP

Kenya

PROJECT SUMMARY

This community-based organization has worked since 1990 to conserve wetlands and biodiversity in and around Saiwa Swamp National Park, home to approximately 25 per cent of Kenya's vulnerable Grey Crowned Crane population. During the 1980s eucalyptus cultivation resulted in drainage of the swamp and damage to habitats.

The catalyst for reversing these trends came from a leader of the local Catholic parish, who mobilized community members to conserve a five-kilometer stretch of swamp – actively abandoning smallholder plots within the area and voluntarily planting a range of native tree species, including acacia varieties, around its border. This has allowed the wetlands to regenerate, and enabled the maintenance of a healthy crane population - the most recent count within the Kipsaina wetlands, in December 2009, found 35 individuals.

KEY FACTS

EQUATOR PRIZE WINNER: 2006

FOUNDED: 1990

LOCATION: Western edge of Great Rift Valley, Kenya

BENEFICIARIES: Kipsaina and other surrounding villages

BIODIVERSITY: Saiwa Swamp National Park

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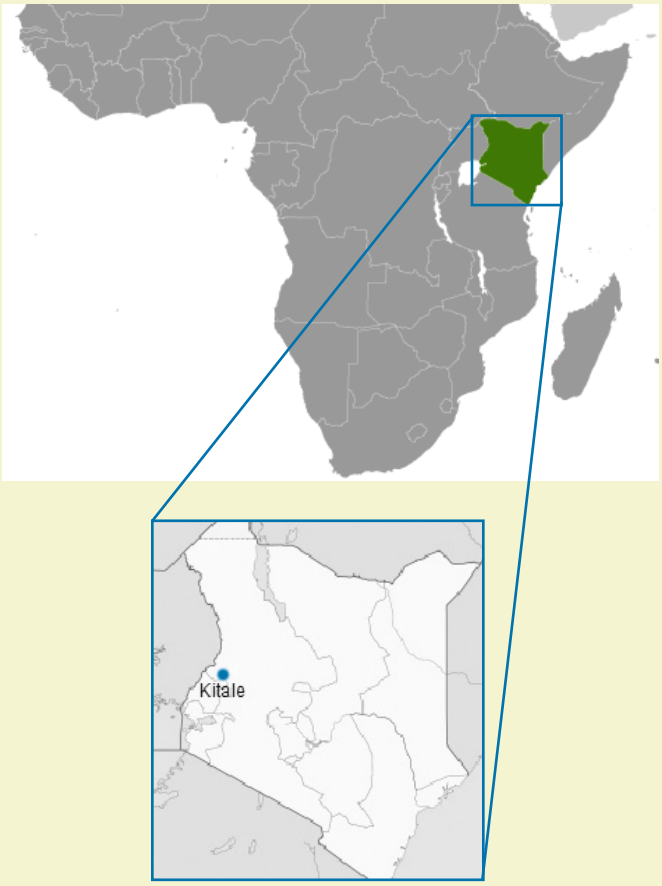

Background and Context

Kipsaina Crane and Wetlands Conservation Group began its work in 1990, and was officially registered as a community-based organization in 1991. The group works in conserving wetlands and their biodiversity in and around Saiwa Swamp National Park, Western Kenya. The swamp is located in the Trans Nzoia plateau lands, between Mount Elgon and the Cherangani Hills, along the western edge of the Great Rift Valley. The many rivers of the region eventually make their way through the basin to Lake Victoria, and two of these, Saiwa and Kipsaina, form a riverine forest and swamp area to the north of the town of Kitale. Officially gazetted in 1974, Saiwa Swamp now forms Kenya's smallest national park. From 1991 until 2003, the focus of Kipsaina Cranes and Wetlands Conservation Group was on Saiwa; since then, attention has shifted to the five kilometres of swamp upstream from the park, around Kipsaina village itself.

Protecting Kenya's smallest national park

The group began in response to human pressures on the Saiwa and Kipsaina ecosystems. The national park and its wildlife were threatened by activities in and around the wetlands including sand-harvesting, wetland drainage, over-grazing, wildlife poisoning from the use of artificial fertilizers, and illegal harvesting of water and firewood from the protected area. The Kipsaina river area was entirely cultivated, reducing the river to a stream, and wildlife had disappeared from the wetlands.

Kipsaina Conservation Group was formed with the objective of easing the pressure on this fragile ecosystem by making the swamp a community-conserved area. Much of the initial work in persuading community members to refrain from cultivation of the wetlands area was undertaken by a key figure in the local Catholic parish, who convinced Kipsaina residents to conserve the swamp area on the grounds of its inherent natural value.

The prime objective was to rehabilitate the badly degraded areas in and around the swamp through tree-planting, while other objectives aimed at compensating communities for the services they had typically obtained from the wetlands area. This included providing alternative, clean sources of water; fodder for cattle instead of grazing within the wetlands; and income-generating activities besides cultivation. Kipsaina promoted environmentally-friendly practices such as fish-farming, agroforestry, bee-keeping, poultry and rabbit keeping, and the sale of curios and tour-guiding for ecotourism. Through the adoption of these alternative livelihood activities the group has been able to successfully rehabilitate the wetlands and improve local wellbeing.

The chief biodiversity impact has been the return of several key wildlife species to the wetlands, including the rare Sitatunga antelope and a large population of Grey Crowned Cranes. Much of Kipsaina's work has been supported by the International Crane Foundation, and the area has been the subject of television documentaries for the BBC and the African Wildlife Foundation, among others. This international recognition has made the group a model within Kenya for community-based approaches to conservation.

"The region was affected by the droughts throughout Southern Kenya in 2008-2009. In Kipsaina, we were able to construct simple irrigation ditches through the wetlands, which benefitted local cultivation."

Maurice Wanjala, Kipsaina Crane and Wetlands Conservation Group

Key Activities and Innovations

The conservation model employed by Kipsaina has been that of a community-conserved area, protecting the wetlands area upland from Saiwa Swamp National Park. This has involved extensive community participation, as the wetlands area had previously been entirely used for cultivation, grazing, and as a source of water, and the surrounding forests for firewood and timber. In order to halt this practice of human encroachment and reverse the environmental harm done, the Kipsaina Conservation Group has had to change behaviours and attitudes towards conservation, promote schemes to preserve the conserved area, and provide realistic alternatives for the services provided by the Kipsaina ecosystem. The first part of this was achieved through the engagement of a local church community; conservation of the wetlands area was conceived of as part of a holistic approach to ownership and stewardship of the community's land. This has been vital for the initiative's durability and sustainability, but has been supplemented by a variety of environmentally-friendly and income-generating activities.

Conservation through tree-planting

Kipsaina's main achievement has been its capacity to raise indigenous and exotic tree-seedlings on a large scale. Currently they are able to produce 100,000 seedlings a year at their main tree nursery, where they grow over twenty species of tree. This has involved local stakeholders such as schools, women's groups, churches and youth groups. The indigenous seedlings are given to communities for agroforestry purposes and to create an upland buffer zone around the wetlands, while the exotic varieties are sold to generate revenues to cover operational costs. Planting along the edge of the wetlands area and in the upland area has helped to prevent soil erosion and has provided habitats for returning wildlife.

Ten new sites for tree nurseries are being planned for the surrounding ten districts to scale up the environmental benefits from the tree-planting scheme, using Kipsaina's expertise. The areas will be identified according to the criteria of the presence of, or the potential for, wildlife habitats. The group plans to raise up to one million seedlings in total: 100,000 at each planned new site. Organised groups close to the site, such as church, school, or women's groups for example, will be engaged to lead the projects. So far, three sites have been identified, in Trans-Nzoia, Bungoma, and Kakamega Forest.

Investments in wellbeing and raising awareness

In Saiwa Swamp National Park and Kipsaina, human pressure on the wetlands ecosystem has been reduced through a variety of measures. A key intervention for this was funding from the Disney Worldwide Conservation Fund through the International Crane Foundation in 2003. One innovation was providing tree seedlings free of charge to local farmers, encouraging them to refrain from harvesting trees around the wetlands for fuel. Water springs have been bored and water catchment areas preserved in the villages surrounding the national park, reducing communities' need to take water from the conservation area.

Extensive sensitization of the communities through training, workshops and seminars was also vital in persuading local farmers not to graze their herds on the park's land. To support this, Kipsaina initiated the planting of elephant grass along the riverbanks, safeguarding against soil erosion and providing fodder for livestock, to compensate for the loss of grazing areas within the swamp.

The targeted beneficiaries of Kipsaina's work have been the surrounding communities in both upper and lower Saiwa and Kipsaina, many of whom have been encouraged in undertaking alternative livelihood activities. Among these, Kipsaina especially targets both youth and women. Training has been given at Kipsaina's demo site in bee-keeping, fish-farming, poultry and rabbit-rearing, and organic farming, among other livelihood activities.

This has been supplemented by environmental education with local youth. Initially, sixteen schools – ten primary and six secondary schools – were given tree nurseries and beehives, engaging a swathe of local youth in conservation efforts. These schools also participate in art and drama competitions with conservation themes. Awareness of the importance of wetland conservation has also been spread to the broader community through music and drama, especially on World Environment Days and public holidays.

The development of Kipsaina wetlands for ecotourism activities is ongoing, but the potential for generating revenues through this avenue is very real. Formerly, visitors to Saiwa Swamp National park had driven past Kipsaina, creating a market for the sale of crafts made from wetland resources and stimulating income generation for community members. Now, however, a newly-built road has changed the access route to the national park. Nonetheless, Kipsaina has explored the possibility of erecting observation towers to view the wildlife within the wetlands. The area offers the chance of seeing the rare, semi-aquatic Sitatunga antelope, as well as one of Kenya's largest populations of Grey Crowned Cranes.

Finally, Kipsaina has also participated in joint research projects in biodiversity conservation, undertaken along with students and experts from institutes such as Moi University, Kenyatta University and Nairobi University from Kenya, and Makerere University from Uganda.

Saiwa Swamp, 1990

Saiwa Swamp, 2006

"I would urge the entire Kenyan and even international policy-making community to contribute to environmental conservation. For if we fail to do that, our future is doomed. Man was created last, and was handed over our Mother Earth to nurse, not to destroy."

Maurice Wanjala, Kipsaina Crane and Wetlands Conservation Group

Impacts

BIODIVERSITY IMPACTS

The tree nursery at Kipsaina's demonstration site, situated adjacent to the wetlands, contains around fifteen indigenous and five exotic species of tree seedlings. These include: Prunus Africana, Cordia Africana, Melia species, Albizia Gummifra, Sizygium species, acacia species, Bischovia, Olea species (*Olea Africana* and *Olea Welwich*), *Graveria, Spathodea Nilotica, Markhamia Lutea*, cedar, palm (*Phonex species*), *Melidia Dura, Vitex Kinyensis, Croton Megalcarpus, Maesopis Eminii*, ash, *Eucalyptus Grandis*, cypress, and *Caleantra* species. The proliferation of these various and diverse species around the wetlands has been Kipsaina's most significant environmental impact, greatly improving local biological diversity and helping to conserve several important native species.

The species are chosen for being "multi-ecological" – that is, they can survive in many different geographical areas, and will regenerate. They are therefore suitable for developing buffer zones around the wetlands. Many of the tree species have medicinal uses, and can be used for timber and charcoal, while some are fast-growing. Some of these exotic species, such as eucalyptus and cypress, are sold to local farmers at affordable prices for agroforestry, on the condition that they are not planted around the wetlands area. Other varieties can be used for silk-worm rearing, to provide fodder for animals, or will be used for housing beehives. In addition, acacia trees provide natural roosting spots for Grey Crowned Cranes.

Saiwa Swamp National Park and the Kipsaina wetlands provide a natural habitat for approximately 25% of Kenya's Grey Crowned Crane population. The most recent count within Kipsaina wetlands, in December 2009, found 35 cranes. Other bird species include the Great Blue and Grey Turaco, and Ibis; at least 78 species in total have been spotted within the conserved area. There are also twenty-two Sitatunga antelopes, and a small family group of six of the endangered De Brazza's monkeys, as well as Vervet and Colubus monkeys. The area is also home to species such as the water mongoose, shy otter, and giant snakes including black and green mambas and forest cobras. Endemic plant species include Tipha, Sedge grass and water lilies.

These numbers compare to no wildlife and few bird species prior to 2003, when the area was drained for cultivation. These species have returned solely as a result of the work of Kipsaina's members; the high level of plant and wildlife diversity in and around the small area of wetlands is indicative of the personal sacrifices and long-term planning of this local initiative. Monitoring of this biodiversity is conducted by local schoolchildren and teachers, who are involved in ongoing species sightings. Spot-counting, such as crane counts, are conducted twice annually using community volunteers.

SOCIOECONOMIC IMPACTS

The socioeconomic impacts of Kipsaina's work have been limited by the effects of the 2007 post-election violence in Kenya, which was particularly intense in the Rift Valley area. Nonetheless, at various times Kipsaina has been able to promote income-generating activities in target constituencies which have brought tangible social and economic benefits to indigenous community members. These included the sale of handicrafts and curios to tourists, and environmentally-friendly businesses.

In 2003, the International Crane Foundation conducted a project evaluation of the Disney Worldwide Conservation Fund grant along with a government team, focusing primarily on the fish farming projects initiated by the group. Kipsaina was investigating monoculture fish farming, growing only male fish within a pond, which had yielded heavier specimens. At the time, a single fish was selling for KSh250, and each pond contained up to one thousand fish. The farmers could expect to generate 250,000 Kenyan shillings from the total harvest, or approximately USD 200. This, and other livelihood activities such as bee-keeping and poultry-farming, had helped to lessen communities' reliance on the wetlands area.

In one example, Kipsaina worked with Bwayi Women's Group by donating fish for fish-farming, and tree seedlings for planting. Unfortunately these projects collapsed following 2007. Kipsaina's own demonstration site and nursery were affected when the group's members left the area, but have recovered partially since then. Kipsaina's continued commitment to encouraging conservation through environmentally-friendly livelihoods ensures that socioeconomic benefits will accrue to local communities again; this has been a feature of its success and its continuing sustainability.

POLICY IMPACTS

Kipsaina has been heavily involved in advocating for policy development with various government bodies. Working with the National Environmental Management Authority (NEMA), the Ministry of Agriculture, and other government departments at various local, district and national levels has given the group considerable influence in policies concerning communities and the environment. Kipsaina has hosted district environmental meetings, and was granted land by the Ministry of Agriculture for its tree nursery.

The director of Kipsaina is a member of NEMA, which has used Kipsaina as a role model for replication in community conservation areas in Kenya. Involvement in this national body also led to participation in discussions over reconciling conflicting government legislation. For instance, agricultural, water and land rights laws had specified differing interpretations of private and common property: coordinating legislation to clarify these different interpretations was eventually passed after combined lobbying efforts in which Kipsaina played a leading role. Recently, Kipsaina has also lobbied for change in wildlife policy, arguing for compensation of farmers for destruction of crops by wildlife.

Often, Kipsaina's community members have felt that they have lacked the appropriate tools and training for advocacy, however. This was addressed in 2010, when the World Wildlife Fund invited four of Kipsaina's members for training on lobbying on land issues, anticipating the passing of Kenya's new constitution in August 2010. The group continues to play a role in community conservation issues in Kenya, especially through its association with the National Environmental Management Authority.

Sustainability and Replication

SUSTAINABILITY

In term of financing, Kipsaina's operational sustainability has been underpinned by the sale of exotic tree seedlings from the tree nursery. This provides the only source of income to cover the costs of Kipsaina's activities at present, however. The International Crane Foundation's grant in 2003 has been the only significant source of outside funding for Kipsaina, while the organization has also given training to group members on occasion. No funding has been received from the government. Given the relatively little financing received, Kipsaina's conservation achievements appear even more impressive.

Its sustained success has been enabled by its strong reputational quality among the surrounding communities. This has resulted from the leading role played by key individuals in many aspects of community development. Among these individuals, Maurice Wanjala stands out as the driving force behind community conservation and development. He was the motivation behind the group's foundation, and has been its director for the duration of its existence. His involvement with the local Catholic parish, which he founded in Kipsaina, and several schools has embedded Kipsaina's work within a broader context of community ownership and stewardship of their natural resources. There is also a strong religious overtone to much of Kipsaina's conservation, which has undoubtedly contributed to its continued durability and popularity within the villages bordering the wetlands.

Nonetheless, for its future development and scaling-up of conservation efforts, Kipsaina needs several interventions to make it more sustainable. One such intervention is funding to buy specialized equipment for its programs, such as the tree nursery. Funding is also needed for training of group members in relevant scientific fields, as well as for research into the appearance of wild elephant grasses within Kipsaina River, for instance, into water quality, and into the decline of numbers of some wildlife species in the area.

REPLICATION

The Kipsaina model has so far been implemented in both Bungoma, where a tree nursery is established, and near the city of Eldoret. In the latter case, Sitatunga antelopes were being poached and swamps were being depleted. Training was given by Kipsaina staff on the importance of maintaining local ecosystems, and focused on how community initiatives could contribute to the conservation of wetlands and the preservation of the sitatunga. Kipsaina helped to persuade the group to conserve the swamps for ecotourism instead of draining them for cultivation, relating to its prime location on the main road between Kapsabit and Eldoret. This training was facilitated by the Lake Victoria Wetlands Management Program. Further replication is planned at the ten new sites being identified for tree nurseries.

PARTNERS

Several partners have been important for enabling Kipsaina's conservation and development successes. These include, but are not limited to:

- International Crane Foundation ranks as the initiative's most important partner, having worked alongside Kipsaina since 1992
- Endangered Wildlife Trust
- World Wildlife Fund
- Kenya Wildlife Services
- National Museums of Kenya
- Ministry of Agriculture
- National Environment Management Authority
- Kenya Forestry Research Institute (KEFRI)
- Lake Victoria Wetland Management Programme

FURTHER REFERENCE

- International Crane Foundation spotlight on Kipsaina: savingcranes.org/the-kipsaina-crane-and-wetlands-conservation-group.html
- Kipsaina Crane and Wetlands Conservation Group PhotoStory (Vimeo) vimeo.com/15780448 (English) vimeo.com/15780521 (Swahili)

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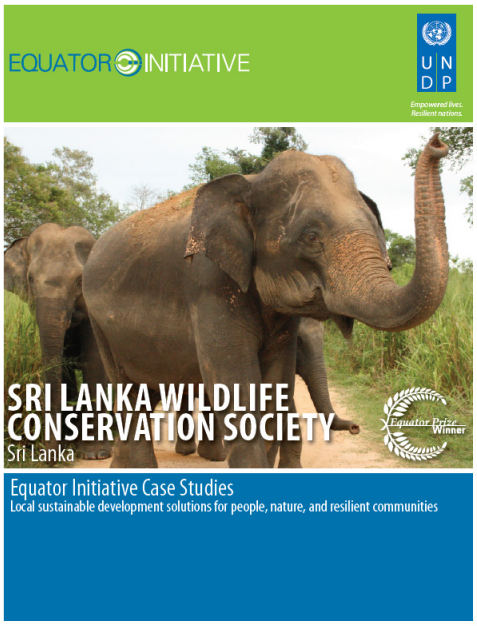

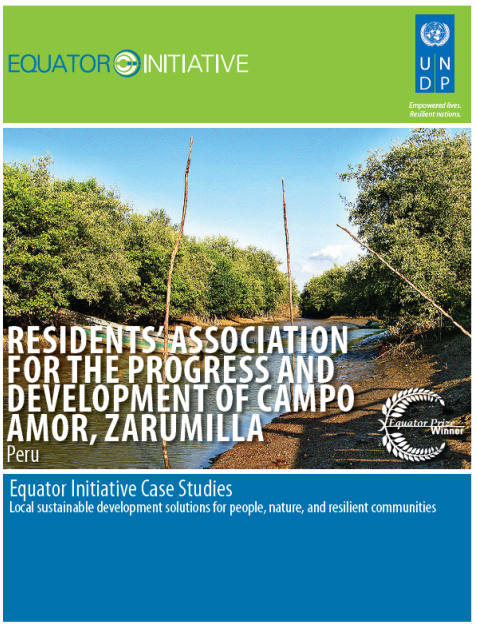

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