The Hidden Costs of Valentine's Day By Ochieng' Ogodo IslamOnline

On February 14, Kenyans will be flocking to floral stands to purchase roses and carnations for their loved ones to celebrate Valentine's Day. The same will be happening in Europe where massive Kenyan-produced flowers are sold.

But beneath the graceful expression of love the roses convey and the lucrative business flower production is, there is the hidden cost little known to many: environmental degradation, socio-economic imbalance, blatant human rights violation, and adverse health consequences for workers.

Lake Naivasha, 120 kilometers northwest of Nairobi in the scenic Rift Valley, is flower farming's epicenter. The lake is on the point of ecological collapse. It could soon become little more than a turbid, smelly pond, threatening the livelihoods of over 300,000 people living around its shores.

"Naivasha was rated in the 1960s as one of the 10 top sites for birds in the world. It was then beautiful and globally famous. Now it is brown and murky. We are all sacrificing it to keep increasing our standards of living and our lifestyles," said Dr. David Harper, senior lecturer at Leicester University, UK.

## **Tranquility Lost**

Harper, who has studied the lake for 20 years, says it is now suffering for the sake of unrestrained commerce. Its ecology has been fundamentally changed with the deliberate and accidental introduction of alien species like the Nile Perch, crayfish, and water hyacinth. This led to changes in the underwater ecosystem stability.

Scientists are now concerned that the lake is fast shrinking and becoming polluted with chemicals from more than 50 flower farms. It is also under threat from soil washed down the hills and into the lake by water during the rainy season. This process is worsened by deforestation and overgrazing in the area around the lake. The earth that runs down the hill precipitates in the lake and starves it from oxygen.

Last October, the lake's level was three meters lower than what it was in 1982, according to a local conservationist who chose to remain unnamed. Although heavy rains have since raised the level of water by nearly a meter, the lake has shrunk in places by as much as 800 meters. Now, it is nowhere more than a few meters deep. There are no precise figures on the lake water usage by companies, but it is believed they are taking around 20,000 cubic meters of water daily. Many think this is an underestimate, as there are now more than 2,000 hectares of land covered by the steel and plastic greenhouses where the flowers are grown.

Each hectare of flowers grown with the most efficient watering mechanism uses about 40 cubic meters of water a day, but flowers grown in the open use three times this amount. By doing the math, one figures that the amount of water taken up daily appears much higher than the estimates.

## Sustainability

"What is not taken into account by the flower companies is that their activities put extra pressure on the lake water," said a conservationist who preferred to stay anonymous.

"About 40,000 people work directly in the flower farms around the lake, but every job attracts nearly seven other people to the area. They use about 750,000 bags of charcoal a year, mostly from wood grown locally in the area. The forests are being felled to provide cooking and heating."

"The new population around the lake has also increased demand for meat and fish." He explained that this is mostly provided from pastors that have increased the size of their herds. This has resulted in massive erosion in the watery pathways that feed the lake.

"At this rate of consumption we shall lose the lake within 10 or 15 years. The companies will not be able to grow flowers then because the water will become too alkaline. The companies are shooting themselves in the foot," said the conservationist. "This deliberate unrestrained commerce can only be compared to the Aral Sea in Russia that dried up in the 1970s due to lack of attention from the concerned authority," added Harper.

Francis Chege, who grew up around the water, remembers spending serene times fishing in the lake, but claims the pesticides from flower plantations are killing the fish and the lake's rich aquatic life.

"Job seekers have swelled the population, and this is also taking a toll on the rich wildlife of the surrounding forests," he said.

#### Health Hazards

Kimani Murigi, a worker in one of the farms, said that most days he works 10-hour shifts without any extra pay and is forced to handle flowers freshly sprayed with what he believes are harmful pesticides.

"The flowers should be sprayed in the evening and pruned the next morning, so that the pesticides are less concentrated," said Murigi, who started working in a flower farm a year ago.

"But here, the flowers are sprayed in the morning and pruned just an hour-and-a-half later," he complained. He also added that breathing disorders among workers are common.

"The owners don't want to take any responsibility for the workers' health," said Murigi. A 32-year-old father of two, he earns Kenya Shillings (KES)5,200 (about US\$75) a month. He lives in a poorly lit hut whose ceiling of corrugated iron is thick with soot from cooking. "Anyone complaining of feeling sick gets sacked," he said.

Last October, a female worker died of a breathing disorder, one of her co-workers alleged. Another complained of lesions on her body, which she said were from handling chemicals.

James Mwaniki spends his working day pushing cartloads of freshly cut flowers from the fields to the grading bay. The 1.5-kilometer route takes him through the area where the flowers are sprayed with pesticides, but he has no face mask or protective clothing.

"I hate it, I wish I could quit," said Mwaniki, 23, who has worked in the farms for three years. "There is no hope or future here," he lamented, revealing that he would like to marry but cannot afford to on his US\$56-a-month salary.

Rahab Wanjiru, 37, claimed that even pregnant women get exposed to hazardous chemicals in some companies. "One of my colleagues miscarried because of long exposure to these chemicals."

"Where the companies provide housing, you are forced to share a room with another family. No privacy," said Benta Akinyi, one of about 700 workers who rent rooms in Karagita, the biggest village serving flower farms workers.

Women have to leave their children at the makeshift day care centers where old women nurse them at US\$2 per day.

"When I go to the farm I normally leave my six-year-old daughter with some old woman. One time she neglected her and she was abused. The case is still in court," said Akinyi.

Naivasha town mayor, Musa Gitau, explained that "crime has also increased as the farms have grown. Naivasha now has more rape cases and sexual assaults than any other town in the country."

Some of the women have to endure sexual exploitation for favors like promotions, although this is declining due to fear of HIV/AIDS.

Few companies are like Magana Flowers Kenya, that pride in a comprehensive welfare package to workers. These include medical care and morale boosting incentives among other benefits.

## A Booming Market

However, Kenya Flower Council (KFC) says flower farming is an important economic activity for the country. "This is the fastest growing sector of the economy, only second to tea," said Loice Mwangi, an employee at KFC.

In 2005, Kenya exported 81,000 tons of cut flowers and earned US\$350 million (KES24 billion). "This was 10,000 tons more than the previous year," he boosted. Kenya, according to KFC, has attained the status of leading supplier to the European Union. It accounts for 31 percent of flowers imported by the EU against competitors Israel, Columbia, Zimbabwe, Zambia, Ecuador, and Uganda.

Jane Ngige, KFC head, says the sector today employs between 50,000-70,000 people. In addition, another one million depend on the farms through auxiliary services. "In a country where unemployment is high, we should not be lost to the fact that the flower industry employs up to 70,000 people directly, and benefits one million others involved in related trades," she said. Eighty percent of employees, according to Ngige, are unskilled, and women account for 60 percent of the total industry.

The lake was much better off during the colonial era when it was used as a sport fishing location. It thrived despite the introduction of different fish species as well as alien floating plants.

However, with the introduction of the Louisiana crayfish in the 1970s, the Kenyan government's intention of improving exports seemed to have backfired. The new species virtually ate nearly all plants and animals living underwater.

The crayfish were also depleted in the early 1990s by eagles paving the way for the survival of the water lilies. This was then followed by the infamous South American water hyacinth, the fastest growing plant in the world. It grows in dense mats that create low-oxygen conditions, killing many native life forms in the lake. It also leaves the water in conditions rife for mosquito growth. As the war against the hyacinth heightened, it also sunk and joined several other dead plants that had decayed.

# The Future of Flower Farming

By 1998, hardly one real native plant or fish from Lake Naivasha was left as the lake's ecology became dominated by crayfish and water hyacinth.

The situation was aggravated by deforestation on the Kipipiri, Mau, Eburru, and Aberdare banks close to the lake. The forests, which used to soak rain and release it slowly over dry season, were now being felled for charcoal. This considerably lowered the volume of water in the lake.

"Prevalence of waterborne diseases and pests in the area is also blamed on the presence of flower farms," said Harper, lecturer at Leicester University. None of the farms have an operational sewerage system, hence making the area susceptible to contracting waterborne diseases.

One fear being expressed is that the flower companies will simply move to other countries as the environment around Lake Naivasha deteriorates.

The farms have completely surrounded the lake, making ordinary people's access to it hard. The few water sources other than the lake are now under huge pressure from various consumers. "As much as the farms are the source of our livelihood, their activities are eating up the lake. Unless this situation is reversed, the lake is not likely to survive," said Jacob Votha, of Kenya Wildlife Service Training Institute (KWSTI) in Naiyasha.

The conflict escalates between the flower farmers and the fishermen who are deprived of their fishing grounds. Another sore conflict that has existed for years between the farmers and the pastoralists as they seek water for their cattle is also growing.

"For a water-stressed country like Kenya, we have to ask ourselves: Is it a sustainable industry? It is a challenge for us." said Dr. Julius Kipng'etich, head of the Kenya Wildlife service (KWS).

Peter Kenneth, Assistant Minister of Finance and a flower farmer near Nairobi himself said, "There is a danger that Rift Valley lakes [like Naivasha] will dry up. You can see that conflict will break out. Kenya needs to understand what the real cost of a poor environment is."

[Workers' names have been changed at their request.]

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