

MERCHANTS OF PERIL

# Deadly Pesticides Pose Death, Pollution for EA



By WANJOHI KABUKURU

**T**hey are hazardous, portend grim and fatal implications and adversely affect all living things. And East Africa is still stocking them.

These are obsolete pesticides, defined as “stocked pesticides that can no longer be used for their original purpose or any other purpose and therefore require disposal.”

The World Health Organisation (WHO) estimates that three million people are poisoned and 200,000 die each year from these pesticides. Majority of victims are vulnerable, poverty stricken populations, agricultural workers and children.

According to Pesticides Action Network (PAN) “causes are many and include banning of pesticide products after import into the country, supply of banned products to countries in the form of aid, oversupply or duplicate supply by different aid agencies, poorly packaged or labeled products and inappropriate formulations of pesticides for local use.”

East African governments are not candid about current stocks. Attempts to get this information hit a brick wall. DEA fared better with the Rome-based Food and Agriculture Organisation (FAO). According to FAO estimates, the amount of obsolete pesticides in East Africa currently stands at around 3,000 tonnes. Not a single East African

*Before withdrawal from the Kenyan market in 2009, Furadan had reportedly decimated wildlife in Kenya, Uganda and Tanzania and was associated with the rampant poisoning resulting in the deaths of 187 African white backed vultures (*Gyps africanus*) in 2004 alone, two dozen lions and a general decline by 77 per cent of vulture population in Laikipia, Kenya*



PHOTOS BY CHILLI HILL

Community country is free from the ignominy of these poisons.

“In Eastern Africa we estimate that there are in the region of 3,000 tonnes of obsolete pesticides. We are working in Tanzania and in discussions with Kenya and Malawi. We have pretty much completed the clean-up in Mozambique and do not have a great deal of current information from Uganda.

Rwanda has some known stocks that were buried some time ago, we

have no information on Burundi,” Mark Davis, Senior Officer at FAO’s Pesticide Management, Plant Production and Protection Division, says.

Nearly half of the 3,000 tonnes are said to be amongst the dreaded persistent organic pollutants (POPs), the blacklisted ‘dirty dozen’ pesticides which remain banned worldwide. “These pesticides seriously threaten the health of both rural and urban populations, especially the poorest

**NOXIOUS:**

A compound in Kitengela, Kajiado county where pesticides are deposited. The area is under tight security

## THE REGION

EASTERN AFRICA BEAT

of the poor, and contribute to land degradation and water pollution," Ethiopian scientist, Alemayehu Wodgenah warns.

### FURADAN

According to the Stockholm Convention there are several sites in Kenya, Tanzania, Rwanda and Comoros that are heavily contaminated. These include, Kitengela, Wajir, Mandera (Kenya), Dire Dawa, Addis Ababa, Oromiya, (Ethiopia), Gisenyi and Gikongoro in Rwanda and Anjouan, Moheli and Grand Comore in Comoros.

The problem of disposal is slow as most countries lack appropriate technology. Indeed there are inadequate waste destruction facilities in the region today as these countries lack adequate high-temperature incinerators. At the moment the cost of incinerating obsolete pesticides stands at US \$ 3500 per tonne.

DEA visited the Kitengela site in Kajado County south of Nairobi, where banned, highly restricted and obsolete pesticides are officially stored. The store was built in 1967. A study conducted in 2005 under the auspices of International Persistent Organic Pesticides (IPEP) project found the site and the vicinity to be highly contaminated. Among the pesticides stored included Aldrin, Dieldrin Heptachlor, Endrin and the now famous Furadan.

For decades now the US agrochemical giant Farm Machinery Company (FMC) has been knowingly exporting for sale a highly restricted chemical to the East African Community (EAC) block countries of Kenya, Uganda, Tanzania, Rwanda and Burundi.

The chemical trading as Furadan but well known scientifically as carbofuran was on sale in Kenya until late 2009. It is imported in Kenya as a 'seed dressing agent for control of soil dwelling and foliar feeding insects' by FMC's local distributor, Juanco Group. Furadan is both an insecticide and nematocide and at the centre of a bitter



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row pitting environmental conservationists on the one side against agrochemical traders and the government on the other.

There are two forms of the pesticide, granular and liquid. The granular form was phased out in the US by Environmental Protection Agency (EPA) in 1991.

Indeed the Furadan saga has just revealed the dirty dealings of western chemical giants with complicity of local merchants and civil servants who use Africa as a dumping ground for banned, restricted and obsolete pesticides in Africa.

Before it was withdrawn from the Kenyan market in 2009 the granular Furadan, which was retailing for \$1.25, had reportedly decimated wildlife in Kenya, Uganda and Tanzania. Furadan has been associated with the rampant poisoning resulting in the deaths of 187 African white backed vultures (*Gyps africanus*) in 2004 alone, other raptors, two dozen lions and a general decline by 77 per cent of vulture population in Laikipia, Kenya. There were reports of deaths of camels, hyenas, lions and hippos.

"If Furadan is not safe enough for use in America, then it's not safe enough for us in Africa," renowned conservationist, Dr Richard Leakey, remarks.

### DANGEROUS

Though the granular carbofuran was phased out in 1991 in the US it found its way to East Africa as Furadan and was only withdrawn after

complaints from conservationists and farmers, according to the Kenya pesticide regulator the Pesticide Control and Produce Board (PCPB), a statutory state corporation in the Ministry of Agriculture, carbofuran (the main ingredient of Furadan) which was registered in Kenya in 1989.

Questions arise. Why did PCPB allow the importation of a highly restricted chemical after it had been phased out in the country of origin and banned in Canada and EU?

If it was phased out in 1991 why was it on sale up to 2009? What did PCPB stand to gain by allowing a dangerous chemical it had banned in 2004 to be sold under a new name? Was FMC dumping carbofuran in East Africa?

As we went to press these questions and a multitude of others combined by incessant calls by this writer to FMC, PCPB, Kenya's Agriculture Secretary Dr Wilson Songa and National Environment Management Authority (NEMA) Director General had not been answered.

Little has changed in the Kitengela site. In 2005 the International POPs Elimination Project undertook a study at the site. In its report titled Hotspot Report for a Contaminated Site: Kitengela Obsolete Pesticides Store in Kenya it was revealed that respiratory disease, emission of an irritating pungent smell, skin ailments and death of livestock was prevalent in the areas adjacent to the site.

The site still remains risky, especially with the increase of population, oblivious of the dangers.

While East African nations are yoked with the dangers of pesticides the fact is, they are minnows in pesticide production. The five major pesticide producing nations are Britain, France, Germany, Switzerland and the US. China, India and Brazil are also hovering around the major players.

The waste management industry in Europe has a turnover of 100 million. So if East Africa is not a producer of pesticides how come the region is

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## THE REGION

EASTERN AFRICA BEAT

saddled with obsolete pesticides? The answer is simple: Dumping.

Way back in 1977, during the United Nations Environmental Programme meeting, Kenya's then Minister for Water Development Dr Julius Kiano thundered: "Stop using us as dumping ground. Kenya detests the use of developing countries as experimental dumping grounds for chemical products that have been banned or have not been adequately tested," he warned.

In 1992 the then United Nations Environment Programme (UNEP) Executive Director, Dr Mostafa Tolba, accused the Italian mafia of dumping toxic waste in Somalia. Nobody took him seriously.

For years now such allegations of toxic waste dumping off Somalia by European companies were an open secret, but little action was taken and the allegations were treated as mere rumours. It wasn't until the 2004 Indian Ocean tsunami that the truth of such allegations came to light when broken hazardous waste containers were washed up to Somali shores.

DEA travelled to Kenya's northern most coastal island to inquire if the side effects of the dumping in Somali waters had been felt in the Kenyan islands.

"We have also heard about the dumping in Somalia and we have been very concerned. Together with our fisheries, police and marine officers we have been very keen monitoring aquatic life. So far we haven't observed anything unusual," Athman Dumila Mohd, the Lamu District Public Health Officer replies.

"Human beings can lie, but marine and aquatic beings cannot lie when exposed to any harmful toxic waste and poison. If the dumping is done in the ocean trust me dead fish will be floating all over the sea. They are very sensitive to ecological changes."

This being a sensitive matter affecting the Western Indian Ocean shelf and more so fish stocks DEA poses the same questions of toxic

dumping to the Seychelles-based authoritative Indian Ocean Tuna Commission (IOTC) Executive Secretary, Alejandro Anganuzzi.

"This is the first time that we hear this claim. In the past, we have heard claims about the relationship between piracy and illegal fishing, but not a relationship between toxic dumping and the depletion to fish stocks," says Anganuzzi.

It seems the dumping wasn't in the Indian Ocean but in the Somali hinterland.

The fixation with synthetic pesticides is a debatable axis for an agricultural economy such as Kenya's, whose major foreign exchange earners are tea, coffee and horticulture. The pesticide industry is indeed lucrative business. According to Kenya's Ministry of Trade Kenya imports some \$50 million worth of synthetic pesticides annually. Conversely, it exports approximately 63 metric tonnes of pesticides valued at US\$ 700,000 to Seychelles, Burundi, Uganda and Tanzania.

### PARADOX

Kenya, with its 50,000 tonnes of flowers is the largest exporter to the EU, controlling a tidy 25 per cent stake. For this, Kenya earns \$300 million annually. The Ministry of Trade records further illustrate that Kenya's horticultural industry is the second largest foreign exchange earner after tea and employs 500,000 and over 2 million people respectively. The tea, coffee and horticulture industries are the major consumers of pesticides.

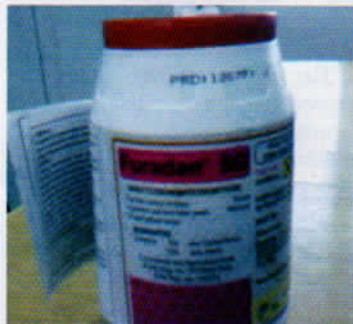
Ironically, Kenya is the leading producer of a natural pesticide, pyrethrin, a broad-spectrum insecticide processed from pyrethrum's dried flowers. Pyrethrum has been grown in Kenya for export for the last 70 years and 8,000 tonnes of dried flowers are produced annually.

Here is the paradox: 95 percent of all the crude pyrethrin is exported to the west (USA-60 per cent, Europe-35 per cent and Egypt and South Africa (2 per cent each). Only 1 per cent re-

mains in Kenya.

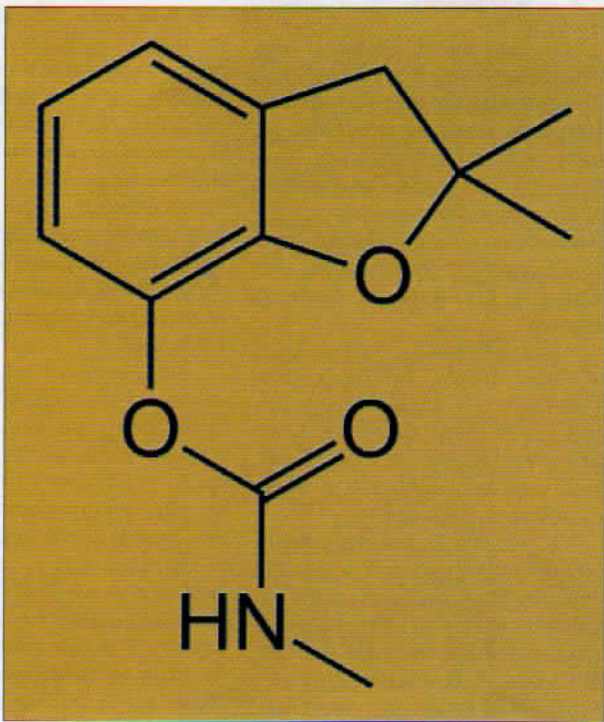
So, why do Kenya authorities, fully aware that pyrethrin-based insecticides can easily replace most of the synthetic insecticides, still allow for the exports of nearly all of its eco-friendly natural insecticide and imports highly toxic synthetic ones?

Here is the answer: Fully aware of the health risks posed by synthetics, Kenya authorities overlook this environmental health aspect and fix their eyes on the profits Kenyan pyrethrins earn. It is this scenario that aptly captures Kenya's and East Africa's dicing with dangerous and highly toxic pesticides such as Furadan ■



### DANGER:

Right: Furadan 5G package, Below: Furadan molecular structure scientifically known as carbofuran



PHOTOS: INTERNET SOURCES