

Continent-wide attack launched on African trypanosomiasis

Government officials from about 30 African countries meeting in Ouagadougou, capital of Burkina Faso, in the first week of October, together with about 300 international and national health experts and scientists, announced the launch of a campaign to wipe out African trypanosomiasis and the tsetse fly that spreads the disease. The campaign will focus initially on areas of the continent where the disease affects mainly animals — eastern Africa, essentially — and then gradually home in on the human disease, which is also known as sleeping sickness.

Originally conceived six years ago, the campaign has finally been prodded into formal existence by a clutch of international organizations and national governments. “It could have come into existence sooner,” says WHO trypanosomiasis control-and-surveillance expert Dr Jean Jannin. “What was missing was the necessary political commitment. Now, for the first time, government leaders themselves have started vigorously pushing for action and the campaign has become a reality.”

Among the main supporters of the campaign, which will be called the “Pan African Trypanosomiasis and Tsetse Eradication Campaign”, are the Organization of African Unity, the Food and Agriculture Organization of the United Nations (FAO), and the International Atomic Energy Agency (IAEA). These organizations are concerned primarily with the animal disease and with efforts to wipe out the tsetse fly vector. WHO, also a strong supporter of the campaign, is primarily concerned with reducing the burden of human disease through better surveillance, case detection and treatment. “At some point in time, though, the two paths will cross to produce a concerted attack on the disease in all its forms,” says Jannin.

The new-found political commitment is fuelled, among other things, by the resurgence of the disease, says Jannin. By the late 1960s, vigorous surveillance, case detection and treatment over the previous two or three decades, plus efforts to hold down the tsetse population through insecticide spraying in areas afflicted with the animal disease, had virtually brought African trypanosomiasis under control. Since, then, anti-trypanosomiasis activities have slack-

High-tech birth control for flies



WHO/TDR/Fisher

Caught in the act — tsetse flies, that spread African trypanosomiasis, mating. One method that could be used to help wipe out tsetse flies is the sterile insect technique, a kind of insect birth control method. It was conceived in the first half of last century, later developed and adapted for various fly pest species by US and former-Soviet scientists, and refined by the International Atomic Energy Agency (IAEA) in the last decade of the century. The technique involves breeding male tsetse flies, sterilizing them with gamma radiation — hence the IAEA’s involvement — and releasing them massively into areas infested by wild tsetse flies. Since female tsetse flies mate only once, those that mate with the irradiated flies will not produce offspring and, provided sufficient sterile male flies are released into a relatively confined area, the tsetse population should die out. So far the technique has only been applied in Zanzibar, where in 1990–93 an IAEA-sponsored project eradicated the tsetse fly from the island.

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ened and the disease has rebounded with a vengeance: about 55 million people in 36 African countries are currently at risk of contracting it, an estimated 300 000–500 000 people are currently suffering from it, and more than 25 000 people die of it every year. On top of that, the disease kills some three million animals a year, at an annual loss of US\$ 600 million to US\$ 1.2 billion, according to FAO estimates.

The new campaign’s five-year plan of action is based essentially on a vigorous attack on the tsetse fly, bolstering surveillance to map the occurrence and socio-economic burden of the disease, and finding better ways of detecting and treating the disease. Anti-tsetse measures will include some time-honoured methods like insecticide spraying and insecticide-doused fly traps. But more sophisticated approaches,

such as the sterile insect technique (see caption above), will in all likelihood be brought into the picture to finish the job.

Jannin cautions, however, against over-optimism at the new campaign’s chances of early victory. “It’s going to take a lot of coordination, a lot of funding — several hundred million dollars or thereabouts — and anywhere between 10 and 20 years, before we can bring at least human African trypanosomiasis under control. It’s still far too early to be speaking about eradication. Bringing the disease under control would already be a major achievement.” What *does* justify optimism, he adds, is that “we really do have the political will now to make a solid start and to get the plan well and truly under way.” ■

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