SUPPRESSING TSETSE F
THE IAEA HELPS ETHIOPIA PRE

1 In Ethiopia's Southern Rift Valley, a man ploughs a field using oxen. For years this land was just forest. It was not possible to use it for agriculture, because tsetse flies were killing all livestock in the region.

2 The flies carry the parasites that cause nagana. This wasting disease is transmitted when they bite animals to feed on their blood. Many cattle die of the disease, others become too weak to be used for ploughing and transport and have limited milk production.

3 In 2009, the government-run Southern Tsetse Eradication Project (STEP), with the support of the IAEA, started to carry out intensive activities to suppress the fly population using insecticides. The fly population is now down by 90%.

4 The benefits of tsetse suppression can be seen all over the region. Dairy produce is now widely available at markets and healthy animals can be seen everywhere in farming and transport. In order to maintain these benefits in a sustainable way, suppression alone is not sufficient.

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PARE FOR TSETSE ERADICATION

5 The STEP project is aiming to eradicate the flies over a 25,000 km^2 area. To be able to achieve this the sterile insect technique needs to be integrated. This form of pest control uses radiation to sterilise male flies which are mass-produced in special rearing facilities.

6 Thousands of sterile males are being released every week by plane into a tsetse-infested area in the Deme Basin, following suppression activities. They mate with wild females, but these produce no offspring. Over time the wild population should be eradicated.

7 In Soddo near the Deme Basin, the STEP team monitors the success of the SIT project. They trap flies in the areas where the sterile males were released. Using a range of special techniques, they can determine whether the trapped sterile males are outnumbering their wild counterparts.

8 Once the area-wide tsetse suppression activities have advanced sufficiently in the Arba Minch region and enough flies are being reared, aerial releases of sterile males will begin. Fly eradication is essential to ensure that the benefits of healthy and ample livestock for farming are sustained.

The IAEA has been supporting the STEP project since it was launched in 1997. Text and Photos: Louise Potterton, Petr Pavlicek / IAEA Division of Public Information; and Andrew Parker/Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture.