With a rapidly growing world population, humans and animals are increasingly competing for the same space. The damage caused by herds of elephants is an economic problem in poor countries and constitutes a threat to people’s food security and to company plantations. What can be done to bar the way to these giants that consume 150 kg of plants every day, without harming them or affecting their lives? How can the peaceful coexistence of humans and elephants be guaranteed?

**A BESPOKE SOLUTION**

**Original principle:** the dispenser launches a ping-pong ball filled with chili oil extract at the elephants. Unsettled first by the noise, then by the impact of the ball, and finally by the explosive smell of the chili mixture, the elephants (which have ultra-sensitive trunks) will turn away. If used in a localised manner, El@out will create a psychological barrier that will gradually condition the elephants.

**Automatic El@out**
- For permanent deterrence, including at night, on tracks used by elephants
- Wooden dispenser triggered by a cord

**Manual El@out**
- For deterrence by wardens:
- Plastic dispenser in the size and shape of a gun

**3 combined repellent effects:**
1. Alerts the elephant with noise (110db)
2. Impact of projectile (16J)
3. Release of chili oil extract

**CIRAD IN A NUTSHELL**

CIRAD is the French agricultural research and international cooperation organization working for the sustainable development of tropical and Mediterranean regions. With over 100 countries, it works to generate new knowledge, support agricultural development, and contribute to the debate on the main global issues concerning agriculture, food and rural territories. It has a staff of 1650, including 800 researchers. Sugar cane is one of the tropical supply chains in which it specializes.

Visit Cirad website: www.cirad.fr
Sébastien Le Bel, designer of El@out®, works for CIRAD’s Forests and Societies research unit. He developed and patented the El@out dispenser with a Zimbabwean partner, to supplement other deterrent methods. FAO enabled the first trials to be conducted in Gabon and, in collaboration with the NGO AWELY, financed the production of a toolbox that includes the El@out dispenser as one of its solutions.

The automatic El@out dispenser is the result of a partnership with La Fruitière Numérique, a fab lab in the south of France, which provides training in its installation and use. CIRAD is organising the production and distribution of both models in France and Gabon.

> OUR SERVICES

- CIRAD’s expertise and R&D services to develop innovative strategies for managing human-wildlife conflicts
- Training in the use of automatic dispensers by our partner La Fruitière Numérique
- A toolbox for choosing ad hoc solutions to mitigate human-wildlife conflicts
- The provision of automatic and manual El@out® dispensers by manufacturers and distributors authorised to do so

> PUBLICATIONS & REFERENCES

- Toolbox for mitigating human-wildlife conflicts (BO-CHF)
- Tutorial for using automatic El@out®