



South-South and triangular cooperation

FAO-China SSC global capacity development activity

Boosting southern partnerships for the progressive control of high-impact animal diseases: Zimbabwe's successful experience in controlling tsetse-transmitted trypanosomosis

Development challenge

In Zimbabwe, as in all of sub-Saharan Africa, tsetse-transmitted trypanosomosis poses a severe challenge to food security by limiting livestock production and mixed animal–crop agriculture. This transboundary animal disease is characterized by a slow deterioration of health leading to death; it also reduces quality and quantity of meat and milk production and induces abortions. Trypanosomosis also affects humans in the form of the tropical disease better known as 'sleeping sickness', which causes sleepiness during the day and insomnia at night, anxiety, and is lethal if untreated.

Animal trypanosomosis control is neglected in many African countries as the disease disproportionately affects smallholder livestock keepers, who often lack access to quality veterinary products and services. Outdated drugs and the emergence of drug resistance compound ineffective treatment. Because of the severe burden this disease places on rural livelihoods, trypanosomosis is considered one of the major challenges to sustainable agricultural development in Africa.

Development solution

Good practices have been developed and applied in Zimbabwe to reduce or eliminate the burden of African animal trypanosomosis (AAT). The adoption of these good practices was made possible by the strong commitment of the Government of Zimbabwe, a commitment demonstrated in the allocation of adequate human and financial resources for the control of AAT.

The **FAO-China South-South Cooperation (SSC) Programme, under its Global Capacity Development Project, and the Animal Production and Health Division (AGA)**, have identified **Zimbabwe**

as one of the southern African countries that could **offer many on-the-ground practical technologies & experiences** of proved efficiency that need to be shared with other countries, such as:

- Tsetse control tools such as insecticide-treated targets (ITT), insecticide-treated cattle (ITC), ground and aerial spraying methods and strategies.
- Disease monitoring for AAT surveillance.
- Ensuring quality and rational and correct use of veterinary drugs to reduce the disease burden in animals, lessen the threat of drug resistance, and decrease the risk to humans.

- Information technology (IT): geographic information systems (GIS), global positioning systems (GPS) and other IT tools (e.g. the atlas of tsetse and AAT) for evidence-based decision-making and improved risk management and interventions.

- Progressive control pathway (PCP) as a step-wise, risk-based strategic approach to reduce the incidence of AAT, as has been done with a number of other animal diseases, including foot-and-mouth disease and *peste des petits ruminants*. The PCP for AAT enables better planning and monitoring the impact of field activities.

Key results

The integrated, strategic **use of tsetse control tools eliminated tsetse flies** from selected target areas at the margins of their known habitats and **prevented the reinvasion of cleared areas**. In other areas, **tsetse densities and the related AAT problem were sustainably reduced**.

Disease monitoring (e.g. through sentinel herds) and the rational, controlled use of drugs against trypanosomosis enhances and enables to sustain the impact of vector control. It also minimizes the risk of drug resistance, which emerges when veterinary drugs are misused (e.g. by underdosing), or when falsified or substandard drugs are applied by unknowing livestock keepers.

An information system on the spatial distribution of the disease and its vectors (i.e. the national atlas of tsetse and AAT) guides a rational deployment of control interventions, e.g. by targeting areas where the disease impact is highest and where the socio-economic benefits of control can be maximized.

The **FAO-China SSC Programme** has therefore recognized Zimbabwe as a provider country of expertise in this area. This is the **first example of innovative approach of partnerships-building** to be set-up by the Programme, joining the forces of **provider countries from the South and new resource partners**, to introduce a truly **mutual-learning modality of SSC**.

Potential for upscaling

With FAO support through South-South and triangular cooperation (SSTC) and Programme Against African Trypanosomosis (PAAT), efforts should also be made to streamline the PCP for AAT **into national policies and strategies**. **Community-based AAT control** should be further promoted to scale up and sustain the achievements. **Investment from other stakeholders**, such as the **private sector and international resource partners** should be encouraged to broaden the geographical coverage and effectiveness of interventions. Disease data management and risk mapping should be improved for better, evidence-based targeting of field interventions.

An **innovative SSTC approach**, based on the principles of **co-financing** and **mutual learning exchanges** is being promoted by FAO. In June 2019, a **multi-stakeholder gathering with technical and resource partners** took place in Zimbabwe, to support a SSTC project for the control of high-impact transboundary animal diseases in Southern Africa. In addition to participants from countries from the sub-region, representatives from OIE and AU were invited, as well as from South Africa, Brazil and China, as **potential SSTC partners** for the proposed project. The workshop also served as a pilot for the programme formulation in the area of **one health/transboundary pests and diseases**. **This programmatic area of work** is also being supported through the FAO's business development portfolio (BDP).

Solution exchange

A number of **tsetse control tools**, especially certain types of **traps or insecticide treated targets**, **were developed in Zimbabwe**, and are now used in other African countries. Also, **Zimbabwe** is at the forefront of the implementation of the PCP for AAT, and with support from FAO and the **PAAT is an example for countries that share the same challenges**. Similarly, the development of a national atlas of tsetse and AAT, already completed in Sudan is being implemented in Burkina Faso, Ghana, Mali, Kenya and Zimbabwe.

Good practices to control tsetse and trypanosomosis that were developed or adopted in **Zimbabwe could be scaled up at the sub-regional and continental level**. In particular, **other affected countries could strengthen their AAT control activities by guaranteeing adequate financial resources** and by reinvigorating their commitment to the Pan African Tsetse and Trypanosomosis Eradication Campaign (**PATTEC**), an initiative of the **African Union**.

With FAO technical support through SSTC, efforts should also be made to streamline the PCP for AAT into **national policies and strategies**. **Community-based AAT control should be further promoted to scale up and sustain the achievements**.

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