A staged, progressive control pathway for tsetse-transmitted African animal trypanosomosis


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Introduction

Progressive Control Pathways (PCPs) and the related implementation roadmaps are used in the control of a number of human and animal diseases, including foot-and-mouth disease, pestes des petits ruminants, brucellosis and rabbies. International organizations such as FAO, the World Health Organization (WHO) and the World Organisation for Animal Health (OIE) and, rely on PCP frameworks for planning.

Methodology/Results

The PCP for AAT is structured along five stages and a pre-entry level, i.e. "below Stage N to Stage N + 1" but fast-tracking is possible in specific circumstances.

In order to move from one stage to the next, the set goals for the ongoing stage must have been achieved, and a plan for the following stage must be prepared. Independent validation is required.

Key requirements for a country to enter the PCP (i.e. to move to "Stage 1") include political and financial commitment for the progressive control of AAT, and the existence of a functioning Specialized National Structure having core capacities and mandate to deal with tsetse and AAT. When in Stage 1, affected countries have to develop technical capacities, and obtain a sufficient understanding of AAT distribution, risk and impact for an evidence-based planning of subsequent activities; pilot field interventions are also conducted. Larger scale field activities are implemented in Stage 2 and beyond, within the priority areas identified in Stage 1.

Stage 2 aims at a sustainable, economically-profitable reduction of the AAT burden, and the intervention strategy hinges on the integrated management of AAT (a community/farmer based approach).

The focus of the PCP’s final stages (3 to 5) is to create sustainable AAT-free areas. Stage 3 is completed when AAT transmission is interrupted. In Stage 4, some control measures are maintained, while in Stage 5 the elimination of AAT must be sustainable in the absence of interventions.

In panel B, one specific work plan by zone is illustrated (in this example, it is a five-year work plan). Zone A is an AAT-free area, in which the absence of AAT was confirmed through surveys carried out in previous stages of the roadmap. Zone B is an area where AAT occurs, and which has been prioritized for AAT elimination; elimination activities are planned to start in year N + 3. Zone C is an area where AAT is in the process of being eliminated, and where AAT transmission is planned to be interrupted by the year N + 3; some control measures are planned to be maintained after year N + 4. Zone D is an area where AAT transmission has been interrupted, but some control measures are still in place; all control measures are planned to be suspended as of year N + 5. Zone E is an area where AAT has been reduced, and which has been prioritized for AAT elimination as of N + 3. Zone F is an area where AAT has been reduced, and where the reduction is planned to be sustained during the five-year period. Zone G is an area where AAT occurs, and which has been prioritized for AAT reduction/integrated management as of year N + 2. Zone H is an area where AAT occurs, but which has not been prioritized for either reduction/integrated management or elimination activities during the present five-year work plan.

Conclusions

The PCP for AAT provides affected countries and stakeholders with a rational tool to plan and implement stepwise AAT control campaigns. The main goal of this PCP is to help lift the burden of AAT, and to achieve this goal, the support of all stakeholders, including resource partners, will be crucial. In particular, funding AAT-endemic countries through the early stages of the PCP will be critical before the benefits of more advanced PCP stages can be fully reaped.

Importantly, the PCP enables to better position interventions against tsetse and AAT in the broader context of poverty reduction, hunger eradication and increased resilience of vulnerable and marginalized rural communities. These are some of the major strategic objectives of FAO and included in the Sustainable Development Goals.

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