Multi-sectoral approach on animal African trypanosomiasis (AAT): Challenges and opportunities

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Introduction

- Sub Saharan African countries least developed in the world: hunger and poverty widespread, especially amongst the rural populations

- Global climatic change (drought, flood) which compromises crop production and livestock production

- Tsetse & trypanosomosis in 1/3 Africa (38 countries): major constraint to livestock production (Shaw, 2004).

- Huge economical losses induced by AAT in SSA
Introduction

- Complexity of T&T eradication and sustainability of the assets of its control
- Multi-sectoral approach to T&T eradication programmes is necessary
Multi-sectoral approach of AAT

The multisectoral approach to AAT could be defined as “an action that involves all stakeholders — political decision makers, researchers, farmers or organizations of farmers, local communities, NGOs, International organizations … — in addressing the sustainable control or the eradication of the disease.”
Sectors involved

- Political commitment
  - Government
    - Good AAT control policy: National AAT control programme, Regional coordinated AAT control, PATTEC
    - Financial support: AAT control = public good
    - Increase capacity and capability of agencies in charge of tsetse and trypanosomosis control.
  - Local or regional government
    - Important role in community awareness
    - Leadership
Sectors involved

- Involvement of beneficiary communities
  - Communities’ awareness
  - Ownership: financial contribution/work
  - Leadership: local AAT control committee
  - Sustainability of the achievement of AAT control projects or programmes
  - Lack communities’ commitment is causes of failure of AA control in many countries

  Burkina Faso (Bauer et al., 1992; Bauer et al., 1995; Sow et al., 2010)
Sectors involved

- Research on T&T
  - National research institutes
    - Kenya: KTRI,
    - Nigeria: NITR,
    - Burkina: ELAT…
  - International research institutes
    - CIRDES,
    - ILRI,
    - ITC…
  - European research institutes (ITM, CIRAD, ULB, University of Glasgow…)
Sectors involved

Important roles of the research

- Baseline situation
- Design of good intervention strategies
- Analysis of risk factors (remote sensing, competitiveness of sterile males (SIT), Tsetse population genetics, chemoresistance…)
- Impact assessment of the intervention
- Various experiences for better knowledge of tsetse biology (olfactive attractant, mark release recapture…)
- Development of sensitive diagnosis test
T&T control or eradication programmes

- National T&T control or eradication programmes
  - In the framework with the national or international research institutes
  - Supported by national resources and other donors

- Regional T&T control or eradication programmes
  - PATTEC (eradication of T&T from Africa)
  - Various FAO financed projects in tsetse infected countries
Other sectors involved

- **NGOs**
  - GalVmed (development of new drugs, support to the research and policy)
  - Vétérinaires Sans Frontières (support of farmers and local development agencies)
  - Etc.

- **International organisation**
  - FAO (capacity building, financial support, research action, expertise…)
  - IAEA (capacity building, financial support, research action, training, expertise)
Participatory approaches

- AAT eradication should involve all the relevant stakeholders
  - Integrated approach to improve the efficacy of trypanocidal drug treatments in livestock to control AAT: rational drug use
  - Platform for AAT control.
    - Veterinary services
    - Policy makers
    - International organisations
    - Smallholder livestock producers:
Challenges

- Eradication of AAT
  - Size of T&T repartition area (10 million km²)
  - Mass rearing capacity of sterile males
  - Capacity building of the T&T control institutions or bodies
  - The concerted T&T control by neighbour countries (TWB)
  - War-torn zones
  - Sustainability of financial support
Drug resistance

- Trypanocidal drug quality
- New drugs discovery
- Identification of potentiator to potentiate the action of existing trypanocide against resistant trypanosome strains
- Rational drug use
Challenges

- Environmental consideration: biodiversity
  - Role of wild animal and game reserves
  - Protected forest
- Mechanical vectors (\textit{T. vivax, T. congoense})
- Sustainability of assets of the campaign
  - The sustainability of the achievements of the campaign by the local communities
  - Maintaining of artificial barriers
  - Contribution (financial, work) to continue the control effort
- Good Land use policy
Opportunities

- Research institutes which carry on various researches on T&T in Africa and Europe
- PATTEC
- NGO/international organisation
  - GalvMed: New drug discovery
  - FAO various projects
  - IAEA various projects
Opportunities

- International donors
  - EU (Project TRYPRAC)
  - Bill and Melinda Gates foundation
  - Others donors (small grants for research)

- New Partnership for African development (NEPAD)

- The declaration of Maputo
Opportunities

- New approaches
  - TWB
  - Live with T&T until its eradication
Acknowledgement

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THANK YOU!

Web site: www.pattec.bf