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EU funded project launched in March 2012

Partners:

Institute of Tropical Medicine Antwerp

University of Hannover

NAHDIC Ethiopia

VetTogo Togo

Universidade Eduardo Mundlane Mozambique

University of Glasgow

CIRDES

Vétérinaires Sans Frontières Belgique

University of Berlin

University of Pretoria

FAO

CIRDES (Bobo Dioulasso)
Tryrac’s backbone

WP 1: Management and coordination

Laboratory work

WP 2: Tool development
and transfer to regional laboratories.
Establishment drug quality control laboratory

Field studies (Ethiopia, Mozambique and Togo)

WP 3: Determine prevalence of trypanocidal drug Resistance and drug quality

WP 4: Develop and test ‘best bet’ resistance control strategies

WP 5: Develop extension messages and transfer strategies

WP 6: Determine impact of interventions

WP 7: Dissemination
Figure 6: Flowchart for investigation of trypanocidal drug resistance and development and evaluation of integrated best-bet control strategies.
WORK PACKAGE 2: Develop tools to detect trypanocidal drug resistance and establish local capacity and capability to diagnose drug resistance and to conduct trypanocidal drug quality control (WP leader: ITM; Partners: UFB, CIRDES, UP, NAHDIC, a regional quality control laboratory; Associates: FAO, University of Glasgow)

- DR diagnosis tools development (« omics » with a.o. whole genome sequencing on characterized strains, ...)
- Tools dissemination
- Technology transfer
- Quality control between laboratories
- Standardized drug quality monitoring (FAO, GALVmed)

• Central Ethiopia
  – 4 districts, namely Abeshege, Enemor Ener, Sheha, Sebeta Awas

• Central Mozambique
  – 3 districts, Chinde, Nicoadala and Maganja da Costa Districts (Zambézia Province)

• **Northern Togo**
  
  – Kora and Dapaong departments located in the Northern part of Togo

• Genetic mapping (University of Glasgow)
  – Microsatellite analysis of field samples
  – Determination of genetic exchange
  – Insight into the dynamics and evolution of drug resistance
WORK PACKAGE 4: Develop and test best-bet integrated strategies to improve effectiveness of trypanocides and minimize and control trypanocide resistance (WP leader: FUB; Partners: VetTogo, EMU, NAHDIC, ITM, VSF Subcontract: tsetse control consultant)

• Rational Drug Use (RDU)
• Vector control
• Improve livestock condition
• Monitoring the impact of the intervention
  – Calves sentinel herd
WORKPACKAGE 5: Develop and use delivery systems to support control strategies. (WP leader: VSF, Partners: EMU, NAHDIC, VetTogo, ITM, FUB, LUH)

• *Diagnosis* (in each intervention areas)
  – Analysis of the (institutional) environment in which the extension message will have to be developed and transferred.
WORKPACKAGE 5: Develop and use delivery systems to support control strategies.  
(WP leader: VSF, Partners: EMU, NAHDIC, VetTogo, ITM, FUB, LUH)

- Message development and transfer
  - Train the trainees
  - Different channels of communication (country specific)
- Sustainability and exit strategy
  - Built on sustainable veterinary service delivery for small holders by empowering all stakeholders involved in the system
WORKPACKAGE 5: Develop and use delivery systems to support control strategies.  
(WP leader: VSF, Partners: EMU, NAHDIC, VetTogo, ITM, FUB, LUH)

• Evaluation
  – Verify the training of the trainees and the implementation of the training programs
  – VSF will prepare a manual on best extension practices for the promotion of effective use of trypanocidal drugs.
WORKPACKAGE 6: Determine impact of intervention on the livelihoods of smallholders (WP leader: LUH; Partners: VetTogo, EMU, CIRDES, NAHDIC, VSF)

• Hypothesis: best-bet strategies (WP4) developed and tested within a participatory approach (WP5) will improve the farmers’ knowledge and behaviour

• Impact assessment:
  – (i) the direct impact of the intervention on participating farmers
  – (ii) the secondary impact through farmer-to-farmer diffusion

• Baseline survey year 1+ follow up study at year 4 and specific case studies in between
**WORKPACKAGE 7: Visibility** (WP leader: ITM; Partners: all partners; Subcontract: update of trypanocidal drug resistance situation)

- (1) *Directly* to recipients integrated into research activities (technical staff, service providers, cattle keepers): see WP5.
- (2) A project *website* is now available: [http://www.trypanocide.eu](http://www.trypanocide.eu)
- (3) Conferences, publications...
Rational Chemotherapy begins now and here
Rational Chemotherapy begins now and here

- Publicity for quinapyramine is made during this meeting (Tambisco L.t.d.)
- Quinapyramine was banned for use in cattle in the 70’s
- Causes resistance to ISM and DA
- Should be restricted to treatment of T. evansi in cattle!
- Packaging should be modified