



**PROGRAMME AGAINST AFRICAN TRYPANOSOMIASIS**

**11<sup>th</sup> MEETING OF THE PROGRAMME COMMITTEE**

**REPORT**

**Geneva, Switzerland**

**24-25 April 2007**

**Food and Agriculture Organization of the United Nations  
Inter-Africa Bureau for Animal Resources of the Organization for African Unity  
International Atomic Energy Agency of the United Nations  
World Health Organization of the United Nations**

## Acronyms

AAT	Animal African Trypanosomiasis
AfDB	African Development Bank
ALIVE	African Livestock
AW-IPM	Area-Wide Insect Pest Management
AU	African Union
GAEC	Ghana Atomic Energy Commission
CATT	Card Agglutination Test for Trypanosomiasis
CIRAD-EMVT	Centre de Coopération Internationale en Recherche Agronomique pour le Développement - Elevage et Médecine Vétérinaire Tropicale (French Agricultural Research Centre for International Development-Animal Production and Veterinary Medicine)
CIRDES	Centre International de Recherche-Développement sur l'Elevage en Zone Subhumide
COCTU	Coordinating Office for the Control of Trypanosomiasis in Uganda
CTVM	Centre for Tropical veterinary Medicine
DBMS	Data Base Management Systems
DRC	Democratic Republic of the Congo
FAO	Food and Agriculture Organization of the United Nations
FAO/IAEA	Joint FAO/IAEA Division of Nuclear Applications in Food and Agriculture
FITCA	Farming in Tsetse Controlled Areas of Eastern Africa
GF-TADs	Global Framework for the Progressive Control of Transboundary Animal Diseases
GIS	Geographic Information System
HAT	Human African Trypanosomiasis
IAEA	International Atomic Energy Agency
ICIPE	International Centre of Insect Physiology and Ecology
IFAD	International Fund for Agricultural Development
IFAH	International Federation for Animal Health
IGAD-LPI	Inter-Governmental Authority on Development-Livestock Policy Initiative
IRD	Institut de recherche pour le développement (Research Institute for Development)
ISCTRC	International Scientific Council for Trypanosomiasis Research and Control
ITM	Institute of Tropical Medicine
ITW	Interactive Training Workshop
ILRI	International Livestock Research Institute
NTDs	Neglected Tropical Diseases
PAAT	Programme Against African Trypanosomiasis
PAAT-PC	Programme Against African Trypanosomiasis-Programme Committee
PAG	PAAT Advisory Group Coordinators
PATTEC	Pan-African Tsetse and Trypanosomiasis Eradication Campaign
PCMU	Project Coordination and Management Unit
PNLTHA	Pogramme National De Lutte contre la Trypanosomiase Humaine Africaine
PPLPI	Pro-Poor Livestock Policy Initiative
SADC	Southern Africa Development Community
SARD	Sustainable Agricultural and Rural Development
SAT	Sequential Aerosol Technique
SIT	Sterile Insect Technique
SSNCP	Sleeping Sickness National Control Programmes
STEP	Southern Tsetse Eradication Project
T&T	Tsetse and Trypanosomiasis
UNIDO	United Nations Industrial Development Organization
WHO	World Health Organization

## Foreword

The eleventh meeting of the PAAT Programme Committee was convened at WHO headquarters, Geneva, Switzerland, 24-25 April 2007. The meeting focused on (i) achievements of PAAT mandated organizations (i.e. FAO, IAEA, WHO, AU-IBAR) and AU-PATTEC, (ii) implementation of AfDB-PATTEC supported T&T intervention in six sub-Saharan countries (Burkina Faso, Ghana, Mali in West Africa and Ethiopia, Kenya, Uganda in East Africa), (iii) new PAAT partnerships (IFAH, UNIDO, FAO/IGAD-LPI).

Mr Raffaele Mattioli, convenor of the meeting, introduced Mr Lorenzo Savioli, Director of the WHO-Neglected Tropical Diseases (NTD) unit, who warmly welcomed the participants to Geneva on behalf of WHO and officially opened the meeting.

Mr A.A. Ilemobade, PAAT Chairman, welcomed the participants. He reminded the constitution of PAAT in 1997 as an international alliance of mandated UN agencies, supported by donors, research institutes and tsetse-affected countries. Mr Ilemobade recalled the role of PAAT in formulating a plan of action whose ultimate goal is to alleviate human suffering, reduce poverty, improve food security and facilitate sustainable agricultural production in tsetse and trypanosomiasis (T&T) infested areas. Although the ultimate goal has not changed, the strategy must, and indeed, needs to be constantly reviewed. Among the major achievements made by PAAT there are the establishment of structures to coordinate resources at national and international levels, the creation of an open access Information System and the production of a variety of guidelines concerning different aspects of T&T intervention and related sustainable agriculture and rural development. As regards the implementation of intervention projects, the PAAT Chairman welcomed the release by the African Development Bank (AfDB) of the first instalments of loans and grants to the six countries involved in the first phase of the PATTEC initiative: Burkina-Faso, Mali, Ghana, Kenya Ethiopia, and Uganda. The present achievements and planned activities of these projects are central to this meeting.

Apologies were received from Mr Peter Holmes and Mr Pere Simarro who could not attend the meeting

The meeting was chaired by Prof. A.A. Ilemobade. FAO provided secretarial assistance. The meeting's Agenda and list of participants are included in the annexes.

## **1. MINUTES OF THE LAST MEETING**

- 1.1. The report and recommendations of the 10<sup>th</sup> PAAT-PC meeting were taken as read and, after further deliberation, adopted.

## **2. SUMMARY OF THE 11<sup>th</sup> PAAT-PROGRAMME COMMITTEE MEETING OUTCOMES**

- 2.1. Representatives of FAO, IAEA, WHO, AU-IBAR and PATTEC reported on progress, priorities and planned activities.
- 2.2. **FAO/PAAT – R.C. Mattioli**

FAO/PAAT activities and progress on the implementation of recommendations since the 10<sup>th</sup> PAAT-PC meeting were presented.

As regards training and capacity building, several actions taken by PAAT were described. In particular, IAEA developed two e-learning modules on SIT-relevant irradiation dosimetry and on procedures for strain compatibility testing in tsetse flies. FAO, with the collaboration of IAEA, organized an Interactive Training Workshop (2-week workshop, Nov. – Dec. 06) on harmonization of GIS-based decision support systems for T&T spatial targeting and on the harmonization of national information systems. Further information on this workshop, as well as on the recommendation to further expand the PAAT-IS resources, can be found in section 2.7.

The use of GIS to facilitate decision making has been promoted through the publication by FAO, in partnership with DFID, of the book “Mapping the benefits: a new decision tool for T&T interventions” which links economic variables to a GIS spatial framework in order to provide new insights and reinforce decision-making process for intervention. Other activities concerned the finalization of the paper “Standardizing land cover mapping for tsetse and trypanosomiasis decision making” and the initiation of the paper entitled “Global datasets for the management of the trypanosomiasis problem: an environmental approach”, which reviews state-of-the-art global GIS datasets that can assist T&T decision making.

The inclusion of policy issues related to trypanosomiasis control in the Greater Horn of Africa within the IGAD-LPI project activities has been pursued at the first meeting of the National Technical Focal Points for IGAD LPI held in Djibouti, 24-29 March 07. Also, FAO/PAAT and IGAD have agreed to cooperate in defining policy and actions against T&T in the IGAD LPI project area. In this regard a collaborative study will soon be initiated.

Inter-Agency (PAAT mandated organizations, IFAD and UNIDO) collaboration has been further strengthened through an FAO/UNIDO/IFAD/IAEA/IFAH project document that has been elaborated on Quality Control/Quality Assurance of trypanocides. FAO/PAAT has also developed a formal agreement of collaboration with the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) and African Livestock (ALive, a World Bank initiative). GF-TADs and ALive consider PAAT as the reference

platform for providing assistance in the definition of appropriate policies and scientific and technical strategies for matters related to T&T.

### 2.3. **Progress report from AU-IBAR – M. Traoré**

The main recent activity at AU/IBAR has been the preparation of the upcoming 29<sup>th</sup> Meeting of the International Scientific Council for Trypanosomiasis Research and Control (ISCTRC), which will be held in Angola from 1-5 October 2007. A scientific committee has been established to discuss the abstracts for presentation. Serious concerns for funding have arisen, mainly related to high air-ticket and Daily Subsistence Allowance (DSA) costs for Angola. Mr Traoré appealed to the meeting participants to try and find ways of overcoming these difficulties.

Issues related to the need for training was brought to the attention of the meeting participants. As compared to the '70s and '80s, when a critical mass of young technicians dealing with T&T was active, today there is lack of new, young personnel adequately trained and knowledgeable to guarantee a turnover between generations. A suggestion was made to develop 'introductory training modules' to attract technicians towards the problem of T&T.

With a view to improving the effectiveness of the efforts to control T&T, a need for a substantial reorganization of the links between the institutions at the heart of T&T work and a wish for more 'synergistic' interactions were also expressed.

### 2.4. **Progress report from PATTEC: further African countries benefiting from AfDB financial support - John Kabayo**

The Head of PATTEC Coordination Office, Mr Kabayo, reported on plans and progress in the implementation of the PATTEC initiative. A brief reminder was given regarding the main features of the PATTEC initiative (decision of the African Heads of State, principles of the "Plan of action", activities of the "PATTEC Coordination Office", nature of PATTEC projects, the reasons behind the creation of PATTEC and its objectives). Mr Kabayo emphasized that PATTEC aims at controlling tsetse using existing means, rather than developing new drugs or new technologies.

The current status and the roadmap for the activities of the PATTEC initiative were presented. With the support of the AfDB, the first phase of multi-national tsetse eradication projects has been started in Burkina Faso, Ghana and Mali in West Africa and in Ethiopia, Kenya and Uganda in East Africa. Activities in four countries in southern Africa (Angola, Botswana, Namibia and Zambia) have also started; Botswana and Namibia are now apparently fly-free, hence focus has shifted to Angola and Zambia, where SAT operations are planned to start in May/June 2007. Operations in these two countries will need to involve also the Democratic Republic of Congo (DRC), which is currently setting up a PATTEC office. South Africa, Mozambique and Zimbabwe are planning operations with the help of IAEA. A proposal to make the Southern Africa Development Community (SADC) a T&T – free zone is on the agenda of the next Summit of SADC countries. Between October 2007 and May 2008 implementation of projects should start in several other countries (these projects

should tackle transboundary areas in Rwanda Tanzania and Burundi, in Benin, Togo, Niger and Nigeria, in Chad, Central African Republic, Cameroon and Nigeria, in Sudan and Ethiopia and in Senegal, Mali and Guinea).

The outcomes of the Special Donors' Conference on PATTEC (Addis Ababa, 2 February 2007) were briefly reported. Significantly, pledges (more than US\$320 million) came from affected countries rather than donors.

The PATTEC Coordinator highlighted the possible support to PATTEC from partners and he specifically mentioned the following activities: project planning/development, supervision and backstopping of project implementation, field research, experts consultation and resources mobilisation.

## 2.5. Progress report from WHO – J. Jannin

WHO reported on sleeping sickness surveillance and control programme.

WHO provides support to affected countries in relation to capacity building (hands-on training for staff involved in the day to day control activities), surveillance and control (supply of 'Card Agglutination Test for Trypanosomiasis' (CATT) reagent, accessories and equipment for screening; free-drug distribution for treatments: eflornithine, melarsoprol, pentamidine suramin; logistics to reach people at risk). Emphasis was placed on the collaborations between WHO and Sleeping Sickness National Control Programmes (SSNCP) in Uganda and Burkina Faso. Other successful WHO collaborations were developed with the *Centre International de Recherche-Développement sur l'Élevage en Zone Subhumide* (CIRDES) and the *Institut de Recherche pour le Développement* (IRD - Research Institute for Development) in West Africa, with the University of Edinburgh for its activities in Uganda and with the Institute of Tropical Medicine (ITM), Antwerp on development of new diagnostic tools. The good relationship between WHO and PATTEC was acknowledged, but the need for a closer collaboration with national PATTEC representatives for the control of HAT was stressed.

Progress in dealing with the disease was reviewed. Only three countries report more than 1000 cases a year (DRC, Angola and Sudan) and evidence suggests that the epidemic in DRC is finally under control. At continental level, three percent of cases are caused by *Trypanosoma brucei rhodesiense*, therefore the main effort must target *T. b. gambiense*.

Mr Jannin also reported on the activities of the Neglected Tropical Diseases (NTDs) Control group aimed at raising the awareness on NTDs. A new agreement signed in November 2006 with Sanofi-Aventis has allowed to mobilize 25 million US\$ for the control of trypanosomiasis and other diseases.

## 2.6. Progress report from IAEA – A. Robinson

The Agency contributes to international efforts against the T&T problem along three major mechanisms, a) assistance to ‘normative’ activities; b) research and methods development; and c) technical cooperation.

The Agency’s standpoint and activities for tsetse area-wide integrated pest management (AW-IPM), under regular review as part of Tsetse the Way Forward (TTWF), were reported. The guiding principle of the Agency’s participation is the phased-conditional approach. One of the recommendations of a recent meeting under the Agency’s TTWF process was the development of a paper outlining the principles for assessing the feasibility of creating tsetse-free zones. CDs on sampling locations for tsetse in relation to population genetics were distributed together with a GIS tutorial. A draft of the letter to the AU Commissioner is under debate highlighting the need for realistic objectives, implementation plans and budgets for AW-IPM tsetse programmes.

With regards to research and methods development, at the FAO/IAEA laboratory at Seibersdorf and through coordinated research projects (CRPs), the increasing difficulty in obtaining isotopic radiation sources was mentioned. However new developments in X-ray radiation were mentioned together with the fact that the Agency will purchase an X-ray machine for evaluation in Seibersdorf. Recent data in Seibersdorf on UV irradiation have indicated that it may be an alternative for blood irradiation. The following summary on recently completed, ongoing and new CRPs was also presented:

- The CRP on tsetse genetics has been completed and the results published in peer reviewed journals. The data on *G. pallidipes* revealed substantial substructuring in populations
- The CRP on quality assurance related to tsetse rearing will hold its third meeting in Nairobi, Kenya, 7-11 May 2007
- A CRP on tsetse symbionts and pathogens was initiated in 2007.
- A new CRP on the integration of population genetics and GIS for livestock pests will probably be started in 2008.

With regards to technical cooperation, the Agency continued to contribute directly to addressing the objectives of the Pan-African Tsetse and Trypanosomiasis Eradication Campaign (AU-PATTEC) through the implementation of one regional, and nine national Technical Cooperation projects in Botswana, Burkina Faso, Ethiopia, Kenya, Mali, Senegal, South Africa, Uganda and the United Republic of Tanzania. The support was largely through provision of training to Member State personnel; expert services and equipment. Under the regional project, two regional training courses are in preparation in Uganda (tentative dates: 30 Aug - 8 Sep 2007) on the principles of collecting and processing of tsetse flies for population genetic and morphometric analyses and in Senegal (tentative dates: 5-30 Nov 2007) on principles of entomological base-line data collection. It is also planned to hold a 3 day satellite workshop (13-15 Sep 2007) prior to the upcoming ISCTRC Luanda, Angola, on pre-SIT area-wide tsetse suppression.

## 2.7. **PAAT Information System: progress and training activities – G. Cecchi**

Mr Cecchi reported on the activities carried out since the last PAAT-PC meeting in the framework of the IFAD-funded project “Strengthening the Information System of the Programme Against African Trypanosomiasis”.

The full revision of the PAAT web-site has been completed and the gaps in the information dissemination have been filled (GIS resources and metadata, manuals and papers). An off-line version of the web site on CD-ROM has been produced. The integration of PAAT-IS with other web-based tools and resources (e.g. FAO GeoNetwork - FAO's Spatial Data and Information Portal) has been consolidated.

The draft paper “Standardizing land cover mapping for T&T decision making”, which will be published in the PAAT Technical and Scientific Series, has been presented in its finalized version. The paper provides methodologies and tools to assist T&T affected countries through the process of customization of readily available, high resolution land cover datasets (FAO-Africover project) for improved tsetse habitat mapping and trypanosomiasis decision making. The paper also explores the relationship between multi-purpose land cover maps and tsetse habitat on different spatial scales.

Information has been provided regarding a 2-week Interactive Training Workshop (ITW) convened to support decision making and information management in T&T intervention projects (FAO HQ, Rome, 27/11 - 8/12/2006) held at the ITW was attended by 20 participants, including representatives from affected countries, FAO staff and international experts. The ITW dealt with the availability and utilization of global, national and local GIS datasets, data standardization and dissemination. The outcomes of the workshops were highly valued by participants, who recommended continued support from PAAT in the fields of GIS, Information Systems management and decision making for T&T intervention.

Following up the ITW recommendations, a draft paper entitled “Spatial datasets for the management of the trypanosomiasis problem: an environmental approach” was developed. The draft provides a review of state-of-the-art geospatial datasets available in the public domain that can assist a sounder T&T decision making. A few examples of data utilization were also included.

Lastly, aim, scope and preliminary results of an FAO-WHO collaboration for improved HAT data management and mapping have been presented. It is believed that GIS and Data Base Management Systems (DBMS) can help to improve spatial targeting of interventions against HAT.

## 2.8. **Veterinary trypanocides: the quest for essential similarity - J. Tettey**

Mr Tettey, of the University of Strathclyde, UK remarked that the key principles for good drugs are three: quality, safety and efficacy. Mr Tettey pointed out that 15 percent of all drugs on the market are fake, exceeding 50 percent in some areas of Africa and Asia. Major problems related to trypanocidal drugs concern

low quantity of active compound, inefficient molecules or commercialization of chemicals not from licensed producers. The value of this market, in sub-Saharan Africa, exceeds US\$ 35 billion/year with the veterinary drugs far ahead than human drugs.

For trypanocides, no harmonized, updated monographs are available, the last one dates back to 1965, although 35 million doses are administered per annum (corresponding to US\$35-40 million), with a significant increase in number of manufacturers since 1995. To some products additional products are included, for example vitamins are added to diminazene aceturate. The results are that there is an inconsistency of chemicals on the market. It should be remembered that production of drugs involves the combination of components in exact proportions.

A pilot study concerning Diminazene involved 11 countries, 102 samples (17 brands) from government, private veterinary clinics, pharmacies and markets. 65% of samples showed results that were outside the 5% tolerance limits. A similar study for another drug (isometamidium) gave equally negative results.

The most urgent actions to overcome these problems were identified as follows: definition of standard requirements for quality, safety and efficacy, definition of specifications for trypanocides, development of robust and reproducible methods of analysis, transfer techniques to user laboratories in Africa, quality control of user laboratory activity.

2.9. **Update on FAO-IAEA-UNIDO-IFAH collaboration on Quality Control/Quality Assurance of trypanocides - R. Mattioli, D. Tezera, F. Van Gool**

Although promising signs have recently been received from FAO, negotiations to officially formalize the collaboration (i.e. Memorandum of Understanding, MoU) between FAO and IFAH on Quality Control/Quality Assurance (QC/QA) of trypanocides is still ongoing within FAO. Despite the pending MoU, however some activities, supported by IFAH, on QC/QA of trypanocides have been carried out by the Strathclyde University (see previous section 2.8) and the Joint FAO/IAEA Division.

A project proposal to assist African countries in providing standardized laboratory equipment for executing tests on QC/QA of trypanocidal drugs was jointly developed by FAO and UNIDO, with inputs from IFAD, IAEA and IFAH. The proposal was subsequently approved by UNIDO.

2.10. **Mapping the benefits of T&T options in East Africa, a regional proposal – A. Shaw**

As part of its contribution to the seven countries of the Inter-governmental Authority on Development (IGAD)'s Livestock Policy Initiative, FAO's Pro-poor Livestock Policy Initiative (PPLPI) is committed to helping strengthen decision-making capacities and informing policy in a number of fields, including T&T control. In this context it is proposing to adapt the 'Mapping the Benefits'

approach from West Africa to the countries in the IGAD region most affected by trypanosomiasis.

It has estimated that some 16.5 million cattle, nearly 20 percent of the region's population, live in tsetse infested areas. The methodology involves defining and mapping cattle production systems, modelling their output and population growth in the absence and presence of trypanosomiasis and thus calculating the potential benefits from its removal. These are then applied to the cattle population in each system to allow the production of financial maps. Work has started on defining the production systems in the IGAD region.

#### 2.11. **Harmonising methods for assessing socio-economic and environmental impacts of T&T control in context of PATTEC activities - J. Maitima**

The major drawbacks in past environmental and socio-economic impact assessments in tsetse control projects were identified as follows: lack of consistency in approaches and methods among projects, great emphasis on impact analysis and little attention given to impact mitigation, lack of a framework for stakeholder involvement.

The peculiarities of PATTEC initiative (area-wide approach, regional projects, emphasis on rural development) call for harmonization of methodologies, which will result in the adoption of a common general framework and similar indicators. This should guarantee the same level of standards across regions and provide comparable results.

The draft document entitled 'A methodological guide for assessing environmental and socio-economic impacts of tsetse and trypanosomiasis intervention' has been presented. It contains tools for environmental, economic and social impact assessments, as well as methods for scenario analysis. For the environmental impact assessment, the levels of analysis concern individuals, populations, communities, ecosystems and landscapes. For the economic impact assessments the levels concern mainly the direct and indirect effects of the disease at the herd level, farm/household level, sector, national, and international levels, including the economic evaluation of environmental impacts of trypanosomiasis interventions. For the social impact assessments, beneficiaries and structure of societies are considered. With regard to the technical option analysis for T&T interventions, the following methods are reviewed: participatory approach, integrated quantitative modelling and computer simulation. The guidelines also describe how to select tools according to the available technical skills, financial resources and time to carry out the analysis.

Country policy workshops are planned in all the six countries involved in the first phase of the PATTEC initiative. Participants will include as many government officials as possible, other decision makers and the PATTEC Steering Committee. During the workshops policy briefs, framework paper, guidelines, interactive CDs and other relevant background documents will be presented and distributed.

2.12. **Update on the project “Stamp out Sleeping Sickness in Uganda” – I. Maudlin**

In central Uganda, HAT of the rhodesiense type has recently moved northwards round the lake Kyoga, to Soroti district, mainly due to movement of cattle carrying human infective trypanosomes.

The project “Stamp out Sleeping Sickness” is a Public-Private Partnership for Control of Zoonotic HAT in Uganda, with the contribution of Industri Kapital (VC), CEVA Sante Animale, COCTU (Coordinating Office for the Control of Trypanosomiasis in Uganda), WHO, Ministry of Health, Ministry of Animal Industries and Fisheries, University of Makerere (Veterinary School) and the University of Edinburgh – Centre for Tropical veterinary Medicine (CTVM). The project aimed at eliminating the disease by breaking the transmission cycle; 220,000 cattle in a high risk zone were treated with trypanocides. Other measures taken were the stop to market introduction of cattle, reinforcement of the government policy for point of sale and treatment, selected application of insecticide on cattle to avoid re-infection and, sensitization of the population.

The results of project activities indicate that the proportion of cattle with human infective trypanosomes has fallen from 20-25 percent to 3 percent. Insecticide spraying activities are still ongoing.

2.13. **Progress of national strategy and strategic integrated approach for tsetse and trypanosomiasis (T&T) intervention and related Sustainable Agriculture and Rural Development (SARD) in priority areas: country reports**

Reports on countries benefiting from AfDB support for T&T intervention were presented by representatives of Burkina Faso, Ethiopia, Ghana, Kenya, Mali and Uganda.

***Ethiopia – T. Alemu***

After a brief introduction to show the geographical location of the project area, Mr Alemu updated the audience on the latest development concerning tsetse mass rearing facilities. The colony of *Glossina pallidipes* has been successfully established and the colony size has reached 110,000 units, with a growth in pupae production of 22,000/week. Adult fly mortality is below 1 percent. The colony is ready for the transition to mass rearing. An embryonic colony of *G. fuscipes fuscipes* has been established through shipment of flies from the Zoological Institute of the Slovak Academy of Sciences in Bratislava, Slovakia. The construction work of a new insectary is 98 percent complete.

The field operations of the STEP project, using a phased approach and existing conventional methods of tsetse suppression, is progressing around villages and livestock areas by means of targets (density 4/km<sup>2</sup>) and cattle treatment (20 percent of livestock) with pour-on formulations. With regard to monitoring and reporting, standardized procedures were adopted; entomological monitoring is

being conducted using 2 traps/km<sup>2</sup> around villages and livestock areas, while disease monitoring is conducted on 1300 km<sup>2</sup>. Active community involvement is being pursued through awareness-raising activities among village leaders, livestock owners, trained professionals, technicians and the general public.

The loan provided by AfDB (US\$14.6M for a period of six years) and inserted in the on going STEP project will soon disburse an initial advance. The joint Ethiopian Gvt/FAO/IAEA project, funded by the Government of Japan (US\$1.7M), through the United Nations Trust Fund for Human Security (UNTFHS), in support of STEP activities started. Initial supplies were received through the IAEA procurement procedure, while the purchase of substantial field materials including vehicles was finalized through the FAO procurement procedures and consignments are expected in the next few weeks.

### ***Kenya – P. Olet***

Kenya targeted tsetse eradication from about 92 000 km<sup>2</sup>. In the first phase an area of 24 000 km<sup>2</sup> will be covered, comprising the Lake Victoria basin, the Lake Bogoria region (North Rift) and the Meru/Mwea region (Central Kenya). After slight delays due to the disbursement of funds from AfDB, implementation started in the area of Lake Victoria.

Initial results in the area of the Ruma National Park are promising. Approximately 1000 targets were deployed within the Park and the number of flies captured per trap per day (FTD) was reduced from 78.4 to 0.5 within 4 months using targets treated with 0.6 percent deltamethrin. Fly suppression activity is ongoing. To ensure that tsetse flies do not reinvade the park, livestock are being sprayed by communities outside the park. Material will also be provided to communities to make traps/targets for monitoring and control. Radio programmes to raise communities awareness will be on air from May 2007. Another achievement has been the commissioning of PATTEC offices; computers were purchased and networked, internet and wireless telephone services were made available and the Project Coordination and Management Unit (PCMU) is now fully functional. Drawing from the experience of previous projects carried out in the same area, concern was expressed with regard to the risk of reinvasion.

For the future, a scale-up in the installation of targets is planned and actions aimed at promoting improved livestock and crop agriculture (e.g. restocking in certain areas) are foreseen. To avoid re-infestation, plans for adjacent areas should be in place in phase two of the PATTEC initiative. A concept note for targeting the tsetse belt in the costal regions of the country is also ready.

### ***Uganda – L. Semakula***

The AfDB funded “Creation of sustainable T&T free areas in East and West Africa: the Uganda component” is foreseen to be executed in three phases. The area that will be targeted in the first phase is a vast crescent around the Lake Victoria. The project is implemented by the Ministry of Agriculture, Animal Industry and Fisheries and coordinated by COCTU with the support of the PCMU.

Major advancements were made in the procurement of equipment, with evaluation of tender documents completed by March 2007. Terms of reference for recruitment of consultancies for entomological, parasitological, socio-economic, environment and land use management baseline data collection were developed and submitted to AfDB for approval. Because of the nature of the HAT problem in Uganda, a medical expert was included in the project management team.

As regards the tsetse mass rearing, under financial year 2006/07 the Ugandan Government committed US\$ 340,000 for expansion of the tsetse mass rearing seed colony facility at Tororo. Completion of the works is expected in May 2007. The facility will have a holding capacity of approximately 350,000 breeding females (actual colony size estimated at 12 000 units). The capacity of the mass rearing facility in Kaliti (Ethiopia) to supply *G. f. fuscipes* for the project in Uganda has not been clarified yet. Therefore, the Government of Uganda is making a request to the AfDB to use part of US\$ 4.2 M available in the project cost-tables for sourcing flies from Ethiopia to construct a medium tsetse mass rearing facility to complement Kaliti's efforts. To this aim, job descriptions for critical technical staff (entomologist and laboratory technicians) required for the tsetse mass rearing facility have been made and recruitment will be done in July 2007.

In relation to the project implementation, the baseline data collection will be undertaken during the second half of 2007. Tsetse suppression using the live-bait technique in areas where cattle are available, as well as limited tsetse trapping are ongoing.

In order to address the problem of the possible merger between the two forms of HAT (*gambiense* and *rhodesiense*), Government developed a public-private partnership with CEVA Sante Animale Internationale Kapitale, Cooper Uganda Ltd. Makerere University and Centre for Tropical Veterinary Medicine, Edinburgh. More than 190 000 head of cattle, representing 86.4 percent of the total population in the interface districts of Kaberamaido, Dokolo, Amulata, Apac and Lira, were treated with isometamidium. In Dokolo and Kaberamaido treatment was given to 60 000 head, corresponding to 100 percent of the local cattle population. Diminazine treatment was used in the other three districts. As a result, the average prevalence of Animal African Trypanosomiasis (AAT) was reduced from 34 percent to 4 percent (0 percent in some areas) after the first treatment.

The major tsetse suppression method to be implemented in 2008 will be the Sequential Aerosol Technique (SAT) with deltamethrin. During the PATTEC Special Donors Conference in February, 2007, in Addis Ababa, the Government of Uganda made a commitment of US\$ 3.0 M to be used in aerial spraying operations.

### ***Burkina Faso - Issa Sidibe***

The AfDB-funded project in Burkina Faso will target an area of approximately 96,000 km<sup>2</sup> across the Mouhoun and Bani river basins, which were subdivided into five intervention blocks. The foreseen duration of the project is seven years. The sequence of actions will be as follows: surveys, suppression and eradication, each taking a year.

Activities for the construction of a tsetse mass rearing facility are ongoing with the technical support of the IAEA.

The requirements for the baseline data collection were identified during a workshop held in October 2006. It is foreseen that the collection of parasitological, environmental, land use and socio-economic data would start in May-June 2007. In September it is scheduled to begin the entomological surveys. The project is also active in the fields of awareness raising of the project beneficiaries and the planning and management of reclaimed T&T free areas.

With respect to sleeping sickness, Burkina Faso is not considered to be a high risk area. However, the return of approximately 360,000 citizens of Burkina Faso who worked in the HAT endemic zones in Côte d'Ivoire caused worries about a possible surge in HAT cases in southern Burkina. Active surveillance carried out by IRD, CIRDES and PNLTHA (Programme National De Lutte contre la Trypanosomiase Humaine Africaine) did not confirm such worries, even though the situation needs further investigation.

### ***Ghana - Charles Mahama***

The Ghanaian component of the PATTEC initiative is financially supported by the AfDB and the Government of Ghana. Following the AfDB loan approval in December 2004, the first disbursement took place in April 2006 and the last one is foreseen for December 2011.

This first phase of the project will cover an area of approximately 20,000 km<sup>2</sup> in the Upper West Region of Ghana, which border Burkina Faso. Consultants for the parasitological, entomological, socio-economic and integrated land cover/environmental baseline survey were recruited. Human resources and equipment needs for the insectary of the Ghana Atomic Energy Commission (GAEC) were assessed. A report concerning GIS and Spatial Epidemiology was produced for the establishment of a DBMS. Pesticides, drugs, traps and field equipment were supplied.

Capacity building was pursued through information campaigns and awareness raising in 75 communities and extensive training of senior and junior personnel. During a workshop on monitoring and evaluation tasks, responsibilities and system for the information flow among stakeholders were defined.

The major constraint identified in this initial phase of the project was the slowness of the procurement process. The following steps in the implementation of the project will be the execution of the baseline data collection and analysis

(second half of 2007) and the initiation of the suppression interventions. Closer collaboration with Burkina Faso and Mali will be sought.

Fields in which support will be necessary were identified as follows: delineation of a realistic target area using the information generated by baseline studies; harmonization of land cover/land use classification, synchronization among bordering countries of suppression and eradication activities to prevent re-invasion, exploration of the desirability and feasibility of the application of SAT.

### ***Mali - Aligui Dyiteye***

Mr Dyiteye provided ample information regarding past T&T intervention projects in the country. The ongoing AfDB-funded project concerns an area of approximately 37 000 km<sup>2</sup>, of which 15 500 km<sup>2</sup> in the Niger river basin (peri-urban zone of Bamako) and 20 000 km<sup>2</sup> in the Bani river basin at the border with Burkina Faso. The project also receives financial support from the Government of Mali.

The baseline data collection and analysis should clarify tsetse flies distribution and population dynamics. Furthermore, studies on animal and human trypanosomiasis prevalence, socio-economic context, and environmental impact will be carried out. Utilization of remote sensing (RS) imagery to map land cover/land use is foreseen.

Farming communities' involvement has been actively pursued through the creation of tsetse and trypanosomiasis control groups at village level, regional information and sensitization meetings and community workshops. 455 people, approximately 5 per village, were trained in traps impregnation, installation and surveillance.

The option of using an SIT component in the implementation of the project is being explored. In this regard, collaboration with IAEA and CIRDES is already in place.

### ***General discussion***

One of the major issues which emerged from the general discussion is the need for the six countries involved in the first phase of the PATTEC initiative to develop realistic and detailed work plans and budgets, which should address the delicate question of the timing of operations. In a broader perspective, the need to strengthen the managerial component of the projects was also stressed from different sides. The scientific background of most of the project managerial staff calls for targeted capacity building actions aimed at endowing project coordinators with the tools necessary for managing such complex interventions.

The usefulness of a stronger coordination and interaction among the six national projects was also widely acknowledged; in particular, overlaps and duplications should be avoided and technical cooperation reinforced. These actions are believed to contribute to increase harmonization, cost savings and ultimately to more effective interventions.

Some concerns about the possibility of reinvasion after completion of the tsetse elimination interventions were expressed. Even though intervention areas were selected in an attempt to minimize the risk of re-invasion, actions aimed at monitoring and controlling reinvasion will have to be carefully planned and put in place.

### 3. *CLOSING*

Mr Ilemobade, Chairman of PAAT, heartily thanked all participants for their contributions. Thereafter, he declared the meeting closed. Mr Mattioli reminded members that the next PAAT PAG meeting will be held in Luanda, while the next PAAT PC meeting will be in Vienna. He thanked Raquel Mercado, Maria Grazia Solari and Giuliano Cecchi for their role in making the meeting a success.

### 4. *RECOMMENDATIONS*

#### 4.1 The following recommendations were discussed and agreed to:

A. Due to the large size of the AfDB funded projects currently implemented in six countries, there is an urgent need for better coordination at national and regional levels of technical/operational aspects. The meeting **recommends**:

- the strengthening of structures at regional and sub-regional levels both to facilitate coordination, especially in the timing of cross-border operations and to avoid duplication of efforts, for example, in commissioning baseline studies many of which could be undertaken using common terms of reference at regional levels.

**Action:** PATTEC, involved countries.

B. PAAT recognises the importance of project managers having appropriate managerial skills to ensure the timely realisation of project objectives. This would involve a judicious mix of topping up the management competencies of technical staff through appropriate training and of bringing in specialized management skills. The meeting **recommends**:

- that PATTEC give high priority to pursue this urgent need for expert management inputs as the implementation phase of the projects takes off. PATTEC may seek the support of PAAT and other mandated agencies.

**Action:** PATTEC.

C. Considering that the PAAT Information System is currently not entirely exploited by PATTEC member countries and endorsing the recommendations made at the Interactive Training Workshop on GIS and Information system management (FAO-HQ, Rome, 26-11/8-12-2006), the meeting **recommends** that PATTEC and PATTEC countries:

- make good use of PAAT-IS as tool to share and harmonize the information generated during project activities;
- build a community of GIS and IS specialists dealing with T&T intervention. Appropriate skills should be identified and capacity building should be pursued;
- give to existing, national GIS service centres additional training to handle T&T issues.

**Actions:** PATTEC, PAAT, member countries.

D. PAAT recognises the need to address manpower requirements of T&T affected countries, especially at the operational level, for intervention. The meeting recommends:

- that PATTEC member countries identify and train younger generation of personnel for T&T interventions.

**Actions:** PATTEC, AU-IBAR, PAAT and mandated organizations.

E. PAAT appreciates the contribution of IFAH and recognizes the need to curb the growing occurrence of fake and sub-standard trypanocidal drugs in the African market. It therefore, **recommends:**

- to develop standardized specifications provided by authorized bodies;
- to strengthen capacity of regulatory bodies to enforce adherence to specifications by suppliers;
- to train and equip existing laboratories, on a regional basis, to conduct quality assurance tests according to specifications provided by authorized bodies and agreed upon by countries.

**Actions:** AU-IBAR, FAO, IFAH, UNIDO, IAEA.

F. PAAT takes note of the discussion and debate on options for the more appropriate techniques and best combinations of techniques for tsetse suppression and tsetse elimination in different agro-ecological settings and the lack of consensus on their use, despite the extensive scientific literature available. The meeting **recommends:**

- that the various entomological experts work towards achieving a consensus on which technique or combination of techniques is best adapted for which situation, defining their limitations and establishing clear entomological guidelines in a single document, ideally in the form of a paper in PAAT Technical and Scientific series.

**Action:** PAAT.

G. PAAT notes that the issue of reinvasion is still a major concern to all the PATTEC countries. The meeting **recommends:**

- that the risk of reinvasion be comprehensively assessed (e.g. at the time of baseline entomological surveys) and that measures be put in place aimed at minimizing this risk in a sustainable manner.

**Action:** PATTEC, ADB-funding benefiting countries.

H. PAAT recognizes the efforts being made by all the AfDB-funded projects in the context of socio-economic data collection and impact analysis. It is **recommended:**

- that criteria and methods be harmonized across countries to facilitate comparisons and avoid duplication of efforts. It is suggested to discuss again this matter at the next PAAT-PAG meeting.

**Action:** ILRI, FAO.

**11<sup>th</sup> Meeting of the PAAT Programme Committee**

**24-25 April 2007**

**WHO Headquarters**

**Geneva, Switzerland**

*Agenda*

**Tuesday, 24 April**

08:30 – 09:00

Registration

09:00 - 09:30

Opening address – WHO Representative

Introduction and objectives of the meeting – *A.A. Ilemobade*

09:00 – 10:00

Adoption of report of 10th PAAT Programme Committee meeting and actions taken on the recommendations, including FAO/PAAT activities – *A.A. Ilemobade, R.C. Mattioli*

10:00 – 10:15

Progress report from AU-IBAR – *M. Traoré*

10:15 – 10:30

Progress report from IAEA – *A. Robinson*

**10:30 – 11:00**

***Coffee break***

11:00 – 11:15

Progress report from WHO – *J. Jannin*

11:15 – 11:30

Progress report from PATTEC: further African countries benefiting from AfDB financial support – *J. Kabayo*

11:30 – 11:45

PAAT Information System: progress and training activities – *G. Cecchi*

11:45 – 12:00

Veterinary trypanocides: the quest for essential similarity – *J. Tettey*

12:00 – 12:15

Up date on FAO-IAEA-UNIDO-IFAH collaboration on Quality Control/Quality Assurance of trypanocides – *R.C. Mattioli, A. Ouaouich, F. Van Gool*

12:15 – 12:30

Mapping the benefits of tsetse and trypanosomiasis options in East Africa: a regional proposal – *A. Shaw*

12:30 – 12:45

Harmonizing methods for assessing environmental and socio-economic impacts of T&T interventions in PATTEC project areas – *J. Maitima*

12:45 – 13:00

Discussion – *A.A. Ilemobade, moderator*

**13:00 – 14:15**

***Lunch break***

14:15 – 14:45

Progress of national strategy and strategic integrated approach for tsetse and trypanosomiasis (T&T) intervention and related Sustainable Agriculture and Rural Development (SARD) in priority areas in Ethiopia – *T. Alemu*

14:45 – 15:15

Progress of national strategy and strategic integrated approach for tsetse and trypanosomiasis (T&T) intervention and related Sustainable Agriculture and Rural Development (SARD) in priority areas in Kenya – *P. Olet*

15:15 – 15:45

Progress of national strategy and strategic integrated approach for tsetse and trypanosomiasis (T&T) intervention and related Sustainable Agriculture and Rural Development (SARD) in priority areas in Uganda – *L. Semakula*

**15:45 – 16:15**

***Coffee break***

16:15 – 17:15

Discussion – *S. Geerts, moderator*

17:15 – 17:45

Africa's Science and Technology Consolidated 12-point Plan of Action: how T&T research and control could contribute – *S. Geerts, moderator*

**19:00 – 20:30**

***Gathering together***

## **Wednesday, 25 April**

09:00 – 09:30

Progress of national strategy and strategic integrated approach for tsetse and trypanosomiasis (T&T) intervention and related Sustainable Agriculture and Rural Development (SARD) in priority areas in Burkina Faso– I. Sidibe

09:30 – 10:00

Progress of national strategy and strategic integrated approach for tsetse and trypanosomiasis (T&T) intervention and related Sustainable Agriculture and Rural Development (SARD) in priority areas in Ghana– C. Mahama

10:00 – 10:30

Progress of national strategy and strategic integrated approach for tsetse and trypanosomiasis (T&T) intervention and related Sustainable Agriculture and Rural Development (SARD) in priority areas in Mali – A. Djiteye

**10:30 – 11:00**

***Coffee break***

11:00 – 12:30

Analysis/Assessment of gaps and needs to enhance progress in the AfDB supported T&T intervention programmes - S. Geerts, moderator

**12:30 – 14:00**

***Lunch break***

14:00 – 15:30

Round table discussion on T&T intervention and SARD impact assessment: harmonization of data needed for impact assessment analysis – A. Ilemobade, moderator

**15:30 – 16:00**

***Coffee break***

16:00 – 17:00

Round table discussion on the need for a regional approach of tackling the T&T problem. The way forward – M. Traoré, moderator

17:00 – 18:00

Conclusions and recommendations

Next meeting

Closing

**11<sup>th</sup> Meeting of the PAAT Programme Committee**  
**24-25 April 2007**

**WHO Headquarters**  
**Geneva, Switzerland**

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**11<sup>th</sup> Meeting of the PAAT Programme Committee**

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*List of Documents*

1. Tentative Agenda and List of Participants
2. Report of the 10<sup>th</sup> PAAT Programme Committee meeting, 26-27 April 2006, Florence, Italy
3. Actions taken on the recommendations of the 10<sup>th</sup> PAAT Programme Committee Meeting, 26-27 April 2006, Florence, Italy
4. *Standardizing land cover mapping for tsetse and trypanosomiasis intervention*, PAAT Technical and Scientific Series (Draft document)
5. *Global datasets for the management of the trypanosomiasis problem: an environmental approach*
6. Interactive Training Workshop "Harmonization of GIS-based Decision Support Systems (DSSs) and Information Systems (ISs) in tsetse and trypanosomiasis intervention": participants, activities and recommendations
7. Revised version (April 07) of the draft PAAT Technical and Scientific Series *Linking sustainable human and animal African trypanosomiasis control with rural development strategies*
8. Recommendations of the 2nd Meeting of the Regional Steering Committee of the FAO/OIE Global Framework for the control of Transboundary Animal Diseases (GF-TADs) for Africa, held 27 March 2007, Djibouti
9. Resolution of the 8th Executive Committee Meeting of ALive (Partnership for Livestock Development, Poverty Alleviation and Sustainable Growth), held 28-30 March 2007, Djibouti
10. GeoNetwork opensource: Geographic data sharing for everyone (CD-ROM and Quick Start Guide)
11. *On target against poverty, The Programme against African Trypanosomiasis, 1997-2007* (PAAT MDG Brochure)
12. *Comparable Costings of Alternatives for Dealing with Tsetse: Estimates for Uganda*, PPLPI Working Paper No. 40
13. *Choice of technique for creating tsetse-free zones in Africa: the cost dimension*, PPLPI Policy Brief
14. *Tsetse and Trypanosomiasis Information periodical*, Volume 29, Part 1, 2006, FAO, Rome.
15. *Mapping the benefits: developing a new decision tool for tsetse and trypanosomiasis interventions*, 2006