



THE PROGRAMME AGAINST AFRICAN TRYPANOSOMIASIS

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Report of
the

FIFTH MEETING OF THE PROGRAMME COMMITTEE

Rome, Italy

22-23 November, 1999

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

1. Opening address and introduction

The meeting was opened by Dr. S.C. Jutzi, Director of the Animal Production and Health Division of FAO. He remarked that so far the PAAT initiative had been strongly driven by FAO and that - being a joint programme - it should be more evenly supported by the other member organisations (for example through the funding of the PAAT Support Group, participants of the PAAT meetings, Secretariat duties, publications).

Dr. Y. Cheneau provided an overview of activities of the Animal Health Service which were of relevance to PAAT and insect-borne disease control in general.

2. Chairman's report

Apologies had been received from Drs W. Masiga, A. van der Zijpp, G. Duvallet, E. Camus, Médecins sans Frontières, A. Vandersmissen, S. Geerts and A. Nell.

The Chairman presented an overview of the purpose, goal, structure, strategies, outputs, achievements and future plans of the PAAT.

The minutes of the previous Programme Committee meeting held 25-27 November 1998, in Vienna, were adopted. Each recommendation was reviewed with regard to progress made over the past year. Most of the recommendations will be referred at a later stage of the report. A working party to assess needs for training and institutional development has been initiated by Prof A. Ilemobade. A new position paper on the implications of privatisation for tsetse and trypanosomiasis control requires to be commissioned. A document on a related issue, "Principles for rational delivery of public and private veterinary services with reference to Africa" was distributed by FAO colleague Dr D. Ward.

Also the minutes of the PAAT Advisory Group Co-ordinators Meeting held 22-23 September 1999, in Mombasa, Kenya, were adopted. The Chairman highlighted the main recommendations. The implications of the regional project in East Africa and the role of IBAR in bringing participating countries should be further discussed. Also, the experiences gained from the RTTCP should be taken on board. The significance of drug resistance requires to be assessed and geo-referencing should play an important role in sampling these data.

The meeting was informed that DFID will fund a study on the ecological effects of the use of pyrethroids in Zimbabwe, as suggested by the PAG meeting.

Each of the Members of the Secretariat reported highlights and activities during the past year in relation to PAAT:

- *WHO*

Sleeping Sickness cases continued to increase at an alarming rate, especially in Uganda, Democratic Republic of the Congo and Angola. An increased number of cases was also reported from Ghana. More control efforts are urgently needed, starting with better monitoring of Sleeping Sickness cases.

Drug resistance in Sleeping Sickness remained a major constraint to drug treatment, as does drug availability and affordability. A new initiative, the Human African Trypanosomosis

Treatment and Drug Resistance Network, addresses these important constraints. Support had been received from the French Government to station a staff member in Yaoundé, Cameroon, to support the field aspects of the network. WHO had initiated a meeting with Bayer to encourage this company to resume the production of melarsoprol.

- *IAEA*

The Committee noted the information from IAEA on steps taken in relation to the proposed Agency's full membership. Secretariat members should review the requested draft revision of the PAAT Memorandum prepared by the Agency and provide comments to other Secretariat members, thus establishing a basis to enter negotiations regarding the budgetary and personnel implications of more evenly sharing the workload among the Secretariat members.

- *OAU/IBAR*

The Committee was informed of and endorsed the general resolution of the 25th Conference of the ISCTRC, pertaining to the deteriorating Sleeping Sickness situation. This resolution had been forwarded to the Ministers of Health of OAU Member States, so as to receive appropriate attention during their October 1999 meeting.

A total sum of 72 million ECU had been earmarked by the EU to implement PACE, a programme for the control and surveillance of epizootic diseases.

Appreciation was expressed for the important role played by the PAAT Information System (PAAT-IS) in the success of the 25th ISCTRC Meeting.

3. PAAT Support Group

The Chairman reported that the PAAT Advisory Group meeting in Mombasa had endorsed the establishment of a PAAT Support Group to support the Secreetariat in its duties. The Support Group would encourage the effective uptake of the conclusions and recommendations of the Advisory Group and PAAT Committee. This Group would also address the R & D and PPI modules.

It was proposed that the PAAT Support Group should consist of three senior level part-time advisors dealing respectively with Policy Development, the PPI module, and Publications plus Communication. Suggested candidates for the posts part-time advisors were Mr G. Freeland, Prof A.A. Ilemobade and Mr B. Hursey. Support for the services of Mr Hursey and Prof Ilemobade had been made available by WHO and FAO/IAEA respectively, and it was hoped that Mr Freeland would be supported by DFID. The PAAT Committee welcomed this development and urged the Chairman to pursue the necessary support for Mr. Freeland.

Publications and communication

Mr. Hursey reported that progress had been made in putting together a tentative list of review articles and authors for the special edition on PAAT in Parasitology Today. He stated that in order to meet the deadline for the publication in November 2000, articles would need to be ready for submission not later than end of March 2000. He requested the appointment of a coordinator for submitting the manuscripts to the editor of Parasitology Today, a consultant to serve as focal point for the center–spread, and confirmation that the $5000 required for the

center-spread would be available. A progress report on the status of the position papers was presented (see annex 3).

The Programme Committee requested Mr. Hursey to oversee all issues connected with the special publication of Parasitology Today and to liaise with the secretariat on the funding of the center-spread.

Policy, planning and implementation module

Prof. Ilemobade reported on consultations to strengthen and redefine the responsibilities of the PPI module with a view to transfer these responsibilities to OAU/IBAR. There was a need to develop the terms of reference of the module following further consultations. During the discussion, it was agreed that there was a need to properly define the modalities of transferring the administration of the module to OAU/IBAR taking into account the institutional and funding responsibilities.

Policy development

Mr. Freeland presented a report outlining his suggestion for the duties of the Support Group Adviser on Policy Development, and how the duties might be best performed. The Chairman reported that he would liaise with DFID to discuss funding of these proposals.

4. Report on ongoing and planned activities

Reports on FITCA and RTTCP are summarised under point 8.

Ethiopian Project

Dr A. Membrate presented a report on the Southern Rift Valley of Ethiopia, Tsetse Fly Eradication project activities. The project strategy is based on phased, area-wide eradication following an integrated, participatory approach involving the Sterile Insect Technique (SIT). Coordination centres and field operation teams have been installed. In addition, a well-equipped system for baseline data collection, a GIS unit, two insectaries and a project steering committee have been established. A collaborative scheme has been worked out with the Addis Abba University, the Ministry of Agriculture and other institutions.The collection of parasitological data was on-going and a facility for breeding tsetse flies, similar to the one in Tanga, will soon be established. There is a possibility of cooperation with the FITCA project as soon as the Ethiopian component becomes operational.

WHO/Sleeping Sickness

Dr S. Van Nieuwenhove reported that Gambian Sleeping Sickness continued to show high morbidity and mortality rates in many countries of Central Africa, particularly the Democratic Republic of Congo (DRC) and Angola. Over 26,000 cases, most of which active cases, had been reported during1998 in the DRC whilst little or no control activities had taken place here. The situation in Angola was similar, if not worse; most of the cases being passive and the clinical signs being atypical.

DFID

The current advisor of the Livestock and Wildlife Advisory Group of DFID, Dr P. Bazeley, spoke briefly about the overall principles of DFID and the new direction, being the alleviation of rural poverty. DFID will be supporting projects that address policy formulation for sustainable livelihoods, adopting an holistic analysis. About 50% of their commitments

would be directed at technical support and about the same percentage at measures influencing policy.

5. The current situation with regard to human African trypanosomosis (HAT)

The present epidemiological situation with regard to *T. brucei gambiense* is similar to the situation observed during the first epidemics at the beginning of the century (1925-1935). The first epidemics became reduced to a very low level using mobile teams and systematic case finding methods. During the 60s, only a few cases were detected. The following years Sleeping Sickness control broke down and the number of cases increased gradually. Over 40,000 new cases were reported in 1998. Very little is known about the epidemiological situation of *T. brucei rhodesiense* but new cases have been reported from Uganda, Tanzania, Zambia, Malawi and Kenya.

In Central Africa the situation is most dramatic. Angola reported in 1998 the largest number of new cases ever declared and these cases were diagnosed by passive detection only. The problem of HAT is considerably more important than one would gather from official figures alone. It was noted that the HAT situation can not be grasped from global figures, because it occurs only in Africa, and develops in foci where the percentage of infected people can reach levels of 50% and above. These characteristics of the human disease complicate the task of obtaining funds from donors. Sleeping Sickness can be treated, but only a combination of active case identification and treatment can solve the problem, as was demonstrated during the first half of the century.

Vector control in Sudan

Prof I. Maudlin gave a presentation in reaction to a press release distributed by Promed, about the implementation of vector control in southern Sudan by Non-Governmental Organisations (NGOs). A number of NGOs have raised the possibility of vector control in areas affected by *T. brucei gambiense*. The rationale is that a community-based vector control programme has been successfully implemented in Busoga in Uganda, a *T. brucei rhodesiense* area. However, it has been demonstrated that because of the very short duration of the Rhodesian-type disease, it can be assumed that people were infected near the diagnostic or treatment centre, and consequently, a targeted vector control could be effective. In the case of *T. brucei gambiense* patients the site of infection is likely to be different (and geographically remote) from the site of diagnostic detection. Thus, the community approach may be too slow to effectively combat the human disease and a more effective way such as aerial spraying of large areas may be necessary.

The conclusion is that for areas, such as southern Sudan, with a high prevalence of *T. brucei gambiense* in people, a combination of case finding and treatment is perhaps the most effective method to control HAT. During the discussion it was noted that regular surveillance could prevent epidemics of *T. brucei gambiense* because high levels of prevalence are the result of an accumulation of cases over a period of many years.

6. Presentation of the HAT Treatment and Drug Resistance Network

Over the past few years a growing number of melarsoprol treatment failures have been reported in several countries, particularly in Angola, the Democratic Republic of Congo, Sudan and Uganda. In these countries a number of treatment centres have observed treatment failures in more than 20% of the cases. Elsewhere, treatment failures have increased occasionally more than twofold. The lack of effectiveness of existing, registered drugs and the high relapse rate are of particular concern in a disease which is 100% fatal if untreated. An additional problem concerns the availability of existing drugs. This holds true particularly for Eflornithine, Suramin and Nifurtimox.

Dr Reto Brun reported the establishment of the HAT Treatment and Drug Resistance Network in Geneva, on 14 – 15 April 1999. The second steering committee meeting of this network was organised in Mombassa in October 1999. Working groups are now establishing plans of action and a number of different activities have been initiated.

7. Research and Development work on the tsetse and trypanosomosis constraint: an economic analysis

As an introduction to the economic analysis, Dr W. Richards, Manager of the DFID "Livestock Production Research Programme" (LPP), explained the background to its commissioning. Over the years, DFID, and its predecessor, have been a major donor and participant in the field of tsetse and trypanosomosis Research and Development as well as in applied control programmes. Between the years 1980 and 1997 DFID spent over £16 million distributed over 105 R & D projects and the wisdom of spending more money in this field was beginning to be questioned. Value for money of the already large investment had first to be demonstrated.

Thus, LPP commissioned five detailed case studies. Three of these studies were geographically focused and comprised The Gambia, Kenya, and Zimbabwe. The other two studies were thematic: one on odour attractants and the other examining the work on the trypanosome. These studies were carried out by British experts but then the complete portfolio was reviewed by three independent international experts, namely Drs Mehlitz, Geerts, and Feldmann. Although generally giving the research work a good to excellent rating, with a reasonable uptake for most of it, the three experts were unable to make value for money judgements. Considering this information to be critical to the justification of future projects, Dr W. Richards commissioned Mr L. Budd to carry out an in-depth economic analysis of the costs and returns to the British investment in R & D over the previous 18 years. This has been done and, subject to comment, revision, and updating to include information from the final two years of the century, a synthesis of his findings will be published by May 2000.

Mr Budd briefed the meeting on the economic methodologies applied and the major assumptions made in preparing his in-depth economic analysis of the trypanosomiasis constraint to agriculture and rural development, the Cost: Benefit analysis of trypanosomiasis control, and of the implicated rewards to the investment in research. The first observation was that research had been an international effort and it would be impossible to separate British investment from that of everybody else. Still less would it be possible to give specific attribution of benefits to a particular source of research funding. Therefore, all research efforts and expenditures were lumped together in one basket and an aggregate and holistic view

taken of the constraint and of the benefits flowing from its effective control. Secondly, it was concluded that currently the only way to make a large scale and sustainable impact upon the trypanosomosis problem would be through major attacks upon the insect vector, the tsetse fly.

Thirdly, it was assumed that with sufficient commitment of political, financial and material resources, the technologies already made available through the last two to three decades of research would suffice to enable the virtual elimination of the problem from the entire continent within a twenty-year period of co-ordinated and intensive activity to control/eradicate the tsetse vector. Mr Budd estimated that such an effort would require a total investment of about $20 billion over a twenty year period, but the returns accruing from increased agricultural and livestock productivity, and improved human health and welfare, would exceed $50 billion within the same period. The annual rate of return would double thereafter as the need to constantly maintain barriers to re-invasion, finally disappeared.

His analysis also clearly demonstrated the superior economics of large scale over smaller scale projects. Taking a continental average of 5 cattle per km², he illustrated that, because the requirements for barriers are relatively small in proportion to the area targeted for clearance, projects tackling tsetse clearance in areas of 10,000 km² and greater would obtain the best cost:benefit ratios. However, activities in areas of 100 km² and less, despite the fact that they could never be effectively protected by a surrounding fly-proof barrier, could prove economically sound if targeted solely upon areas of high cattle density, or high economic value.

Mr Budd also pointed out that, although the $20 billion investment sounded impossible and enormous, it was less so when considered beside the debt servicing costs for the continent, and could be quite affordable out of debt relief packages currently under consideration. Considering that the tsetse/trypanosomosis constraint covers about 30% of the continent, and much of this area is amongst the best watered and potentially most productive land in the continent, and holds back the economic development, health and welfare of some 260 million people, investment in the removal of this problem presents a real challenge to the conscience of all those who profess to hold the elimination of poverty as the prime purpose of their support for development in Africa.

Mr Budd concluded that investment in the total removal of the constraint would give a cost:benefit ratio of 1:2½, and that the returns to investment in research would be in the ratio of 1:75 to 1:175. These are impressive returns by any standards and bear comparison with the very best of other projects in the Natural Resources field. However, he did also point out that to achieve such results we had to greatly improve upon the extent to which tsetse control was exercised in most parts of the continent. So, maybe much of any future research should concentrate upon marketing the technologies and the benefits that could accrue from tsetse control, with only relatively smaller resources being committed to research into further refinements of these technologies.

Finally, Mr Budd pointed out that his analysis had, of necessity, been based on other people's figures, collected at quite different times, from quite different places, and for differing purposes. He, therefore, recommended that smaller but definitive case studies should be initiated to verify the conclusions and to more precisely quantify the scale of costs and benefits involved.

Following the presentation the issue was raised of the prospects of future funding for research. Dr Richards responded that research was needed primarily to establish why the tools available are not more frequently put to use. The meeting was reminded that there is a close correlation between poverty alleviation and intensification of livestock production systems, and that removal of the tsetse/trypanosomosis constraint could facilitate sustainable adoption and investment in the latter. For example, Dr. Feldmann reported that in 1986, livestock contributed only 12% to the GDP of Zanzibar but because of integrated tsetse and trypanosomiasis control, resulting in vector elimination, has this figure steadily improved.

8. Additional information about regional programmes

FITCA

The progress with the implementation of the FITCA programme was further detailed. FITCA involves 6 East African countries and the total EU budget amounts to 20 million ECU, for 4 years. The project was launched in August 1999 at Busia in Kenya. At present, FITCA has administratively been established in Kenya and Uganda. The Ethiopian component of the project is ready for tendering. The Tanzanian component has been revised and will be directly supported by OAU/IBAR. It will be implemented in the Tanga area, with a budget of 800,000 ECU. The starting of the project in Tanzania is under discussion. Burundi and Rwanda will each receive 150,000 ECU to implement surveillance and for capacity building.

The Regional Co-ordinator will look after the research and the general co-ordination of the project. SEMG and ILRI will be implementing the Environmental Monitoring and Socio-economic Impact Analysis aspects. The total estimated cost for these components is 1.4 million ECU. At present, log frames and a work plan are being prepared. During a discussion it was suggested that FITCA should particularly support research of regional interest as well as issues pertaining to the PPI module.

RTTCP

A report was presented on the RTTCP which officially ends in December 1999 but with the new, proposed EU Regional Integrated Animal Health Project not yet under implementation there may be a bridging fund to extend RTTCP until December 2000. RTTCP will be transformed into a centre of excellence in the region, to address regional research and training needs for tsetse and trypanosomiasis control.

West and Central Africa

The situation with regard to tsetse and trypanosomiasis in West and Central Africa was presented and it was emphasised that the problem requires a regional approach. A project for 13 African countries was earlier on submitted to the EU by CIRDES but this proposal needs revision. The Mombasa PAAT Advisory Group meeting recommended that OAU/IBAR solicit funding for reviewing and formulating the West and Central African project.

It was reported to the meeting by the EU Representative that EU is funding a Research project involving CIRDES, ILRI and ITC and that the financial agreement for this project will be signed early in the year 2000. It was also advised that a concept note on the proposed control project for the West and Central African countries should be sent to EU before March 2000. A working group was nominated consisting of Drs. Diall, Codjia, Chizyuka and Prof. Ilemobade to prepare this concept note.

9. Collaboration between FAO and WHO in Information Systems

Progress was reported on the development of the PAAT information system. The PAAT-IS resource inventory now includes information on Sleeping Sickness incidence. The knowledge base (consisting of 20 years TTIQ) was expanded to include WHO documentation.

The initiative to produce a CD containing all the information of PAAT-IS was reported. The ultimate goal is to distribute the CD free of charge. Several cost saving possibilities are being explored. Some additional funds will be required.

10. Concerted Action on Integrated Control of Pathogenic Trypanosomes and their Vectors (ICPTV)

A comprehensive report was presented on the progress of the ICPTV. This concerted action supports the Research and Development module of PAAT. DG XII of EU granted about 400 K ECU to fund the ICPTV. The objective is to organise 7 international workshops as identified and recommended by the PAAT Group Co-ordinators and endorsed by the Programme Committee of PAAT. The ICPTV Concerted Action started 1st July 1998 and will run for 4 years. Its website is closely linked to the FAO/IAEA/OAU-IBAR/WHO PAAT programme and its activities involve 26 partner institutes.

During the first year three workshops have been organised on:

a) Improved diagnosis of trypanosomosis, Entebbe, Uganda, in October 1998.
b) Drug delivery and resistance in the context of integrated disease management, ILRI, Nairobi, Kenya, in May, 1999.
c) Data management and decision support systems, including risk assessment and disease impact evaluation, held in Harare, Zimbabwe, in June1999.

The conclusions and recommendations of the 3 workshops were sent to all stakeholders and details were put on PAAL-L and published in the ICPTV Newsletter. Four more workshops will be organised in 2000-2001. The next workshop will be organised in March 2000 at ITC, The Gambia. The meeting noted with satisfaction the progress made. It is believed that the recommendations produced by the workshops will positively assist the participating countries and all interested parties in general.

11. Quality assurance of trypanocidal drugs

About 30 million doses of trypanocidal drugs are being applied annually in Africa. However, the quality of the various drug formulations is a major concern. Some ten different formulations of diminazene aceturate are presently being marketed and two formulations of isometamidium. Some are produced in Europe; it appears no legislation is applicable to products exported and sold outside Europe. PAAT should be associated with drug quality control, which may involve a double blind testing procedure. As a first step an informal working party has been formed. It was noted that the WHO guidelines for pesticides may be used as a framework for quality control and product endorsement.

12. PAAT working groups

At present five working groups have been or are being created:

- HAT Treatment and Drug Resistance
- quality control of animal trypanocidal drugs
- implications of privatisation for tsetse control
- capacity building and training requirements
- advisory group to assist the reformulation of the project for West and Central Africa

13. PAAT newsletter and PAAT-L

The PAAT-Newsletter serves to provide the latest informationon PAAT and is distributed together with TTIQ. In 1998, DFID discontinued funding TTIQ but this decision may be revised again. FAO, IAEA, RTTCP and WHO contributed regularly over the past few years. Financial support for the publication of the PAAT Newsletter were kindly provided by DFID for 1999. The production costs of the PAAT Newsletter are relatively small. FAO can arrange the formatting, translation and distribution of the Newsletter provided that the editing can be done by Mr Hursey.

It should be noted that the FAO funding level for the various PAAT publications may be reduced in the future.

The PAAT-L functions well, has over 200 subscribers and serves, amongst other, to solicit comments on drafts of PAAT position papers.

14. PAAT position papers

An overview of PAAT position papers was presented (see annex 3). It was recalled that in principle all the position papers are intended to become published under the PAAT Technical and Scientific series. However, a paper may be earmarked as either a position paper or as a discussion paper depending on the degree of international endorsement and consensus.

15. PAAT questionnaire

During the Mombasa meeting a PAAT questionnaire was distributed to the PAAT Advisory Group, to request opinions on the impact and usefulness of PAAT. While the limited returns were encouraging, it was recommended to redraft the questionnaire to remove any bias and extend it to a wider group of potential respondents.

16. Collaboration between FAO and IAEA on GIS

A presentation was given of a Geographic Information System (GIS) on Ethiopia for decision support on the selection of the most suitable areas for tsetse and trypanosomiasis control. A window was created comprising south-western Ethiopia with a human population of 5-6 million. It was remarked that the malaria situation is an additional layer to be produced.

17. Public awareness of the tsetse/trypanosomiasis problem

A key issue to be addressed by PAAT is the requirement to generate awareness of the trypanosomiasis problem among the Governments of affected countries and donor agencies. The meeting recognised different levels of awareness to be addressed, starting from the community level to top government officials. Enhanced awareness is essential for an appropriate long-term commitment and an efficient implementation of control schemes. Past failures to generate awareness and associated support need to be examined and lessons learned.

A harmonised approach to generate awareness is particularly necessary in view of the proposed shift from small scale to larger intervention projects. Various tools need to be explored to ensure a better dissemination of relevant information: a) For example, Press Releases after each PAAT Committee Meeting; b) Through making better use of the FAO Liaison Officers network; c) Utilisation of existing sub-regional information and dissemination centres, such as the SADC Centre of Information and Communication.

The meeting suggested that PAAT should encourage and facilitate:

- the involvement of top level decision makers of African Governments in awareness generation, priority setting and policy development (as it was the case with the Southern Cone Initiative against Chagas disease in South America);
- the collation, analysis and dissemination of relevant socio-economic and ecological data as a firm basis for generating increased awareness and funding;
- the publication of "success stories" in the short and medium term, in order to demonstrate to decision makers that effective disease intervention is possible and results in significant benefits to the people and the national economy.

18. Tsetse population genetics for designing new strategies of tsetse intervention

The use of molecular genetic tools, such as mitochondrial-DNA screening of tsetse was discussed. Such tools allow the development of tsetse population-genetics maps that depict gene-flows and numbers of individual tsetse crossing per generation over to neighbouring fly populations. PAAT recognises the relevance of these new technologies which may assist: a) The identification of isolated tsetse pockets or confined "peninsulas" and b) The understanding of fly pathways. This information can form the basis for future strategies for tsetse control/eradication.

19. Privatisation

The issue of privatising certain components of tsetse/trypanosomiasis control has not been appropriately addressed. A PAAT position paper on the subject was drafted, but has never been finalised. Although some privatisation projects have been initiated (for example DFID is undertaking a feasibility study on the privatisation of veterinary services to support poor/pastoral communities), no harmonised policy outlines exist. The meeting felt that a working group should be charged with elaborating the basis concepts for further consideration by the PAAT Committee.

20. ISCTRC General Recommendation

The Committee endorsed the Recommendations of the 25th Meeting of the ISCTRC in Mombasa. PAAT should disseminate the recommendations to donors and other relevant bodies. The Committee urged OAU/IBAR to obtain feedback from OAU Member States regarding the relevant policies and action taken or planned as a result of these recommendations.

21. Project planning matrix (PPM)

It was suggested that at subsequent meetings the Chairman's report should be delivered against the outputs of the PPM (see annex 4) and that during the meeting changes are made to the PPM if necessary. A work programme for the coming year should be prepared by the Secretariat. It was proposed that the PPM is reviewed or revised during two days prior to the next Programme Committee meeting or that a separate workshop is organised for that purpose. In addition, the Secretariat should revisit the functions and the individual memberships of the Advisory Groups and the Programme Committee and should ensure that the two meetings should be sufficiently different in content, attendance and outcome.

Conclusion and Recommendations

Human Sleeping Sickness

- The PAAT Committee stresses that PAAT should draw more attention to the current Sleeping Sickness resurgence and the need for increased efforts by Government and donors to stop the further spread of the epidemic.

Action: Secretariat

- The first recommendation - on the alarming Sleeping Sickness situation - made by the 25th Conference of the ISCTRC, September 1999, Mombasa, Kenya, is fully endorsed by the PAAT Programme Committee PAAT should endeavour to ensure that this recommendations is appropriately disseminated and OAU-IBAR should report on feedback obtained from OAU Member States regarding relevant policies elaborated and action taken or planned in connection with this recommendation.

Action: PAAT Secretariat, Support Group, OAU-IBAR, WHO

- The PAAT Committee welcomes the initiative by WHO to establish the Sleeping Sickness Treatment and Drug Resistance Network as a way of combating drug failure and resistance, and recommends a linkage with the working group on drug resistance in animal trypanosomiasis. Mechanisms to enhance the WHO network should be pursued.

Action: Secretariat, WHO

- The PAAT Committee supports the efforts to reinforce the Sleeping Sickness Surveillance Office based in Yaoundé, Cameroon.

Action: Secretariat

- The SS Position Papers should be completed as soon as possible for eventual review over the PAAT-L and inclusion in the PAAT Scientific and Technical Series. The following titles have been identified:

  (i) Drugs and Treatment in Human African Trypanosomosis

  (ii) Refractoriness to treatment and parasite resistance in Human African Trypanosomosis

Action: WHO relevant authors and PAAT Support Group

Economic Analysis of tsetse and trypanosomosis control

- The DFID funded Economic Analysis, although a detailed study, was necessarily based upon data derived from a variety of sources, collected at different times and for different purposes. It is recommended therefore that the findings of this analysis should be validated by smaller scale but specific 'tsetse control economics' case studies.

To this end, two approaches have been suggested by (i) Budd and (ii) Allsopp:

(i) to conduct in 3 different regions of Africa a detailed economic cost-benefit study so that each case study covers 3 different sizes of control operations (i.e. small, medium and large). Extrapolation of this 3 x 3 matrix of size by region would offer, with a reasonable degree of certainty, a fair comparison of economic benefit and scale of exercise;

(ii) suggests a detailed analysis of the costs (and potential benefits) to fully control the problem throughout Ethiopia.

The Committee supported these two approaches and asked the PAAT Secretariat to explore how these proposals can be taken forward.

Action: Secretariat

- Economic Anallysis should be distributed in an abridged form.

Action: DFID, Secretariat

PAAT PPI Module

- The modalities and resource implications of moving the administration of PAAT's Policy Planning and Implementation (PPI) module to OAU-IBAR should be elaborated and the terms of reference reviewed in order to ensure appropriate and efficient implementation.

Action: Secretariat, Support Group, donors

PAAT Awareness

- The Meeting reconfirmed the need to generate increased awareness among senior decision makers of donors and Governments of affected countries. Past failures to obtain appropriate commitment have to be evaluated. PAAT should provide guidance on strategies and priorities for intervention and seek the publication of "success stories" which demonstrate that effective intervention is possible and results in significant benefits to rural livelihoods.

Action: Policy development advisor together with the Secretariat

- Consideration should be given to the hiring of professional marketing services to promote PAAT activities to a wider audience.

Action: Secretariat

West and Central Africa Project Proposal

- It is recommended that immediate action be taken by the working group (consisting of Dr. Diall, Dr. Codjia, Prof. Ilemobade and IBAR) to facilitate the production of a project proposal for the control of animal and human trypanosomiasis in West and Central Africa.

Action: working group, OAU-IBAR, FAO Accra, Liaison Officers

East Africa Projects

- Regarding the movement of people from the Ethiopian valley systems up to the highlands and vice-versa, studies should aim at identifying the role of tsetse and its control in this regard.

- Land use planning and (re-)settlement activities in valley floors freed from tsetse should also provide for comprehensive health schemes, to address issues less prominent in the highlands, such as for example malaria.

Action: FITCA and SIT project

PAAT Support Group and Secretariat

- It is recommended that DFID funds are sought to employ a PAAT Support Group - Policy Development Advisor for a period of minimal 40-50 days per year.

Action: Chairman and Secretariat

- It is recommended that the PAAT running costs become more evenly divided among the members of the Secretariat and that additional, external funding from donors, private and commercial sources is sought.

Action: Secretariat

PAAT Working Groups

- It is recommended that the FAO Liaison Officers report on actions undertaken to minimize drug resistance in animal trypanosomiasis (following the guidelines produced as a result of the EU concerted action workshop on drug resistance).

Action: FAO - RAF

- The Working Group on Capacity Building and Training should be revived.

Action: Secretariat, Support Group

- A special working group should be charged with elaborating the basis for the development of policies, principles and guidelines for privatising components of tsetse / trypanosomosis intervention efforts.

Action: PAAT secretariat to appoint a working group

- The PAAT Committee welcomes the IAEA proposal towards a network on molecular tsetse population genetics. This initiative is expected to result in the design of improved strategic concepts for tsetse intervention.

Action: IAEA and collaborators

Publications & Communications

- Funds should be identified to cover the distribution of the PAAT-IS CD-ROM.

Action: Secretariat

- The outstanding position papers should be moved forward to publication in the Technical & Scientific Series as soon possible.

Action: Support Group and Secretariat

- The PAAT Newsletter should be continued with editorial input from the PAAT Support Group (Brian Hursey), and production, printing and distribution by FAO Rome

Action: Support Group, FAO

- PAAT should endeavour to secure funding for TTIQ and explore commercial options in this regard.

Action: Secretariat

- The PAAT Questionnaire has proven to be a successful exercise and distribution should be extended to a wider group including Directors of Veterinary and Medical Services, following some modification

Action: Secretariat and Support Group

Project Planning Matrix

- The Committee recommends that during the coming year the PPM and the PAAT Organisational structures should be reviewed. This could take place at a special workshop or immediately preceeding the next Committee Meeting in Geneva planned for November 2000.

ANNEX 1

PROVISIONAL AGENDA

1. Opening address and introduction
2. Adoption of Minutes of last PAAT Committee Meeting, Vienna, 25-27 November 1998
3. Report and Recommendations of PAAT Advisory Group Meeting, Mombasa, 23-24 September 1999
4. Report on the EC funded Concerted Action and ICPTV Workshops
5. Status of PPI transfer to IBAR
6. Sleeping Sickness; epidemiological situation, ongoing activities and plans
7. Special session on a DfID funded study on the economic returns of tsetse control
8. Quality Assurance in trypanocidal drug use
9. IAEA/FAO/PAAT-IS collaboration to support FITCA-Ethiopia and NTTICC
10. Recommendations and action plans
11. Any other business
12. Date and venue of next meeting
13. Close

ANNEX 2

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ANNEX 3

Status of PAAT Position Papers as of 16 November 1999

No.	Title	Author(s)	Date released on PAAT-L	Status	Number of comments received
1	Drug management and parasite resistance in animal trypanosomiasis in Africa	Professors S. Geerts and P. H. Holmes	26/05/98	APPROVED (published Oct98)	14
2	Impacts of trypanosomosis on African agriculture	Brent Swallow	16/06/98	consultation **Revised version received 15/11/99**	2
3*	Partnerships for tsetse control - community participation and other options	K. Barrett and C. Okali	10/09/98	consultation	5
4	The implementation of odour bait techniques for the control of tsetse flies in Eastern and Southern Africa	Reg Allsopp	01/10/98	consultation **Under review by Editorial Group**	1
5	Sustainable Integrated Disease Management (IDM) for the control of African animal trypanosomiasis: experiences in West Africa	B. Bauer and W.F.Snow	06/11/98	consultation	0
6	Integrating the Sterile Insect Technique as a Key Component of Area-Wide Tsetse and Trypanosomosis Intervention	U. Feldmann and J. Hendrichs	20/11/98	consultation	15
7*	The socio-economic and cultural impacts of tryapnosomiasis and its control	D.K.Mwangi, B. Swallow and S. Roderick	not yet released		
8*	Incorporating socio-cultural factors into the research and control of trpanosomiasis	Joseph W. Ssennyonga	not yet released		
9/10	Human Sleeping Sickness	WHO	**Recently proposed 2 additional Papers on Drug Use and Sleeping Sickness (Recommendation no. 17 from PAAT Advisory Group Coordinators Meeting, Mombasa, 23-24 September 1999)**		
11	Tsetse Fly and Trypanosomiasis Research & Development since 1980 – An Economic Analysis	Leonard T Budd	**To be considered for publication, in an abridged version**		
12	Privatisation of Tsetse / Tryps. Control	Not yet identified			

** "All socio-economic and cultural aspects of tsetse and trypanosomosis control should be combined in a single position paper (this would apply to the three papers prepared by Ssenyonga, Mwangi and Okali)."*

Quote from Meeting Report of the PAAT Advisory Group Coordinators, Mombasa, 23-24 September 1999.

Annex 4 PROJECT PLANNING MATRIX (PPM)	**Project title:** The Programme Against African Trypanosomiasis (PAAT)	**Estimated project period:** 1997 - 2001 **Prepared on:** April 7 - 11, 1997	**Sheet no.1**

Summary of objectives	Objectively Verifiable Indicators	Means of Verification	Assumptions
Overall goal: **Sustainable increase of income, food security and human welfare in Trypanosomiasis affected areas achieved**	Increase in agricultural productivity in priority Trypanosomiasis areas	National Agricultural Reports and Statistics	*for the long term sustainability of the overall goal:* Political stability in countries affected by Trypanosomiasis
Intermediate Goal: **Cost-effective and sustainable Trypanosomiasis control achieved.**	More than 10% reduction per year of prevalence of Animal Trypanosomiasis in priority areas 50% reduction in new cases of HAT by 2001, compared by 1996. Cost-Benefit Ratio of Trypanosomiasis control > 1	National Animal Health Reports and Statistics National Health Reports and Statistics PAAT Information System	*for the achievement of the overall goal:* Governments integrate Trypanosomiasis and Tsetse control in rural development programmes Applicable and affordable techniques for Trypanosomiasis and Tsetse control remain effective Skill staff retained
Programme Purpose: **Integrated and effective control of Trypanosomiasis promoted and facilitated**	Long-term control strategies reflect recommendations and guidelines of PAAT in 22 of 37 affected countries by 2000 HAT: persons under surveillance/total at risk by 2000	National Strategy Documents National Country Programme Reports	*for the achievement of the intermediate goal:* resources for Trypanosomiasis and Tsetse control remain available skilled staff remain available
Outputs **Outputs 1: Trypanosomiasis and Tsetse research and control activities are co-ordinated** **Output 2: Information on policies, resources and activities are managed effectively** **Output 3: Guidance on policy analysis and strategy formulation is provided** **Output 4: Capacity building programmes are strengthened** **Output 5: PAAT managed effectively and efficiently**	50% annual increase in requests for assistance to PAAT from 1997-2000 PAAT database available by Dec. 99 and accessible to 50% of organizations in affected countries and this percentage increased to 90% by Dec. 2000 Decision support systems used by all regional programmes by 2000 Increase in funding for capacity building (100% between 1998 and 2001 and decrease in external technical assistance (10%, 25%, 50% in years 1999, 2000, and 2001 respectively Increased donor support for PAAT: not less than 80% of activities fully funded	Annual Report of PAAT PAAT Programme Committee Reports /FAO/WHO Reports Regional Programmes Annual Reports Regional Programmes Annual Reports Annual PAAT reports	*for the achievement of the programme purpose:* End users accept programme countries and organizations perceive benefits from collaboration

Annex 4 PROJECT PLANNING MATRIX (PPM)	Project title: The Programme Against African Trypanosomiasis (PAAT)	Estimated project period: 1997 - 2001 Prepared on: April 7 - 11, 1997	Sheet no.2

Summary of objectives	Objectively Verifiable Indicators	Means of Verification	Assumptions
1.1 Identify and prioritize research areas 1.2 Link research needs to research capacity 1.3 Inform donors of research priorities and control activities 1.4 Raise awareness of donors and governments to impact of Trypanosomiasis and benefits of control 1.5 Develop mechanisms of communication with NGO's and private sector and grass root organizations 1.6 Develop links with regional organizations of NARS 1.7 Strengthen collaboration with existing institutions , e.g. PARC 2.1 Encourage data sharing at all levels 2.2 Develop and implement data base 2.3 encourage and extend the collection of field data 2.4 Compile resource inventory 2.5 Disseminate information to stakeholders 2.6 develop TTIQ into electronic information source and data base 2.7 Identify resource deficiencies 3.1 Identify methods to quantify socio-economic impact of Trypanosomiasis 3.2 Quantify impact of Trypanosomiasis on human health, well-being and economic development 3.3 develop decision support system for Trypanosomiasis control 3.4 Provide strategic planning guidelines 3.5 Analyse national and regional policies with regard to Trypanosomiasis 4.1 Assess current staff resources in Sub-Saharan Africa with respect to Trypanosomiasis control 4.2 Identify staff training needs 4.3 Collate training opportunities and activities 4.4 Provide advice on the content of training courses 4.5 Develop best practices for training in Trypanosomiasis and Tsetse control 4.6 Promote regional exchange programmes 4.7 Monitor establishment of staffing levels 5.1 Develop and Implement Work Plan 5.2 Establish and apply M&E system for effectiveness of PAAT 5.3 Convene Meetings of Programme Committee 5.4 Deliver progress report to Programme Committee 5.5 Commission independent evaluation of effectiveness and efficiency of PAAT	1.1-1.7: Annual meetings of programme committee 1.1-1.7 Regular Meetings of expert groups 1.1 Publication of inventory and research priorities in 1998 1.3 Trypanosomiasis and Tsetse community incl. donors informed of current control activities in 1998 1.4 Accurate assessment of impact of Trypanosomiasis published in mid 1999 2.1 Data sharing initiated through ISCTRC (Sept. 1997) 2.2 PAAT knowledge and data base established in FAO and WHO established by 1999 2.4 Inventory of human and material resources compiled and distributed by Dec. 1997 2.5 RTTCP report of regional standing committee by Dec. 1997 2.5 Regional HAT co-ordination workshop report by end 1997 2.6 Proposal for electronic storage of TTIQ index by end 1997 3.3 Document on decision analysis for HAT by end 1998 3.3 Document on decision analysis for AAT by end 1999 4.1-4.5 Policy document on capacity building methods and needs by end of 1998 5.1 Work plans 1998/99 for PAAT developed until Sept. 1997 5.5 Independent evaluation of effectiveness and efficiency commissioned end 1998	1.1 -1.7: Full-time secretary full-time administration officer forum for discussions and consensus impact assessment contract (18 m/m) publication costs of TTIQ achieved Information/communication specialist contract (6 m/m) 2.1-2.7 Regular programme resources of PAAT secretariat organizations 2.1 Funds and organization of ISCTRC by OAU/IAEA/FAO/WHO/RTTCP 2.2 WHO-consultant for collation and formatting of data 2.2 FAO/NRI/University of Oxford-consultant to finalize ODA funded proposal for data system 2.6 FAO-consultant for home page development (3 weeks) 2.6 Input from CIRAD/FAO for electronic storage of TTIQ 3.2 Output from data analysis (Output 2) 3.3 International collaborative project for development of decision support system 4.1-4.5 training specialist contract 6 m/m 5.1-5.2 expert contract for work plans and M&E system	*for the achievement of the outputs* For Outputs 1-5: Voluntary manpower available Output 1: reliable data available from stakeholders Output 1: effective channel of communication available Output 2: Funding and resource levels to PAAT remain adequate Output 2: Generation and availability of relevant and reliable data Output 3: Socio-economic methods widely accepted Output 4: suitable candidates available for training Output 5: effective channels of communication available

Annex 4 PROJECT PLANNING MATRIX (PPM)	Project title: The Programme Against African Trypanosomiasis (PAAT)	Estimated project period: 1997 - 2001 Prepared on: April 7 - 11, 1997	Sheet no.3

Summary of objectives	Objectively Verifiable Indicators	Means of Verification	Assumptions