# Table of Contents

## Abbreviations

1 Opening

2 Information

   2.1 Matters arising from 113th CSA session
   
   2.2 Matters arising from the 28th meeting of the NGDO Coordination Group for Onchocerciasis Control
   
   2.3 Follow up to recommendations of 22nd TCC session

3 Strategic and technical issues

   3.1 Rapid epidemiological mapping of onchocerciasis (REMO): update on the situation of onchocerciasis in Angola
   
   3.2 Update on RAPLOA and management of SAEs
   
   3.3 Vector elimination activities with special emphasis on Mpamba-Nkusi, Itwara (Uganda), Bioko (Equatorial Guinea), Tukuyu (Tanzania)
      
      3.3.1 Mpamba-Nkusi
      
      3.3.2 Itwara
      
      3.3.3 Tukuyu
      
      3.3.4 Bioko
   
   3.4 Update on MACROFIL
   
   3.5 Impact of Phases I and II APOC operations: comparative analysis of results
   
   3.6 Contribution of APOC to human resource development
   
   3.7 Expanding the use of effective control tools for neglected diseases and a guide for integrated control of neglected tropical diseases using preventive chemotherapy: approaches to implementation
   
   3.8 The future of onchocerciasis control in Africa: report of the Working Group

4 Management of APOC Trust fund

   4.1 Report on the financial management of APOC funded projects
   
   4.2 Ivermectin distribution-related costs: responsibility of NOTFs to bear at least 25% of the CDTI project costs

5 Project reviews

   5.1 Report on the review by APOC management of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th year progress reports and subsequent year budgets
   
   5.2 Review of new project proposals
   
   5.3 Review of Annual Reports
      
      5.3.1 Nigeria
      
      Observations across projects in Nigeria
      
      Akwa-Ibom State: 2nd year report

Abbreviations 4

1 Opening 6

2 Information 6

2.1 Matters arising from 113th CSA session 6

2.2 Matters arising from the 28th meeting of the NGDO Coordination Group for Onchocerciasis Control 6

2.3 Follow up to recommendations of 22nd TCC session 7

3 Strategic and technical issues 9

3.1 Rapid epidemiological mapping of onchocerciasis (REMO): update on the situation of onchocerciasis in Angola 9

3.2 Update on RAPLOA and management of SAEs 9

3.3 Vector elimination activities with special emphasis on Mpamba-Nkusi, Itwara (Uganda), Bioko (Equatorial Guinea), Tukuyu (Tanzania) 10

3.3.1 Mpamba-Nkusi 10

3.3.2 Itwara 10

3.3.3 Tukuyu 11

3.3.4 Bioko 12

3.4 Update on MACROFIL 12

3.5 Impact of Phases I and II APOC operations: comparative analysis of results 13

3.6 Contribution of APOC to human resource development 15

3.7 Expanding the use of effective control tools for neglected diseases and a guide for integrated control of neglected tropical diseases using preventive chemotherapy: approaches to implementation 16

3.8 The future of onchocerciasis control in Africa: report of the Working Group 18

4 Management of APOC Trust fund 19

4.1 Report on the financial management of APOC funded projects 19

4.2 Ivermectin distribution-related costs: responsibility of NOTFs to bear at least 25% of the CDTI project costs 19

5 Project reviews 20

5.1 Report on the review by APOC management of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th year progress reports and subsequent year budgets 20

5.2 Review of new project proposals 21

5.3 Review of Annual Reports 21

5.3.1 Nigeria 21

Observations across projects in Nigeria 21

Akwa-Ibom State: 2nd year report 23
Adamawa State: 6th year report
Anambra State: 6th year report
Borno state: 5th year report
Cross River state: 7th year report
Ekiti State: 4th year report
Enugu States: 7th year report
Kano State: 7th year report
Kebbi State: 5th year report
Kogi State: 7th year report
Nassawara state: 6th year report (resubmission)
Niger state: 6th year report
Nigeria NOTF/HQ: 8th year report

5.3.2 Angola
Observations across projects in Angola
Angola NOTF/HQ: 1st year report
Lunda Norte and Lunda Sul: 1st year report

5.3.3 Cameroon
Adamaoua I: 2nd year report
North Province: 7th year report
South Province: 2nd year report
South West I: 7th year report
South West II: 5th year report
West Province: 4th year report

5.3.4 Congo
Congo: 5th year report
Congo Extension: 2nd year report

5.3.5 Tanzania
Morogoro Focus: 3rd year report

5.3.6 Ethiopia
Observations across projects in Ethiopia
Bench Maji: 2nd year report
Illubabor: 3rd year report
Jimma: 2nd year report
Kafa-Shekka: 5th year report
North Gondar: 3rd year report
West Wollega: 2nd year report

Page 2 of 61
5.3.7 Malawi
Observations across projects in Malawi
Extension districts IV: 6th year report
Thyolo and Mwanza: 8th year report

5.3.8 DRC
Observations across projects in DRC
EquateurKiri: 1st year report
Katanga South: 1st and 2nd year report
Katanga North: 1st year report
Sankuru: 2nd year report
Tshopo: 3rd year report
Tshuapa: 1st year report
Ubangi North: 1st year report
DRC NOTF/HQ: 6th year report

6 Other matters
6.1 Advocacy
6.2 Operations Research Task Forces in Cameroon, Uganda and Nigeria
6.3 Operational Research
6.4 Project report endorsement prior to TCC review
6.5 Farewell to the parting Chair Dr. Braide
6.6 Date and place of TCC 24 and TCC 25

8 Annexes
8.1 List of participants
8.2 Conclusions and Recommendations of the 28th session of the NGDO coordination group for Onchocerciasis Control
8.3 Implementation of TCC 22 recommendations and suggestions
8.4 Conclusions and recommendations of the workshop on vector elimination certification criteria in APOC countries
8.5 Results of the study on long-term impact of APOC activities
8.6 WHO's renewed commitment towards neglected tropical diseases
8.7 A guide for integrated control of Neglected Tropical Diseases using wide-scale chemotherapy: Approaches to implementation
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAF</td>
<td>Assistant Administrative Finance Officer</td>
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<tr>
<td>APOC</td>
<td>African Programme for Onchocerciasis Control</td>
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<tr>
<td>ATO</td>
<td>Annual Treatment Objective</td>
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<td>CBO</td>
<td>Community Based Organisation</td>
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<tr>
<td>CDD</td>
<td>Community Drug Distributor</td>
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<tr>
<td>CDI</td>
<td>Community Directed Intervention</td>
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<tr>
<td>CDTI</td>
<td>Community directed treatment with ivermectin</td>
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<tr>
<td>CSA</td>
<td>Committee of Sponsoring Agencies</td>
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<td>CSM</td>
<td>Community self monitoring</td>
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<tr>
<td>DEC</td>
<td>Diethylcarbamazine citrate</td>
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<tr>
<td>DRC</td>
<td>Democratic Republic of Congo</td>
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<td>FLHF</td>
<td>Front Line Health Facility</td>
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<td>GIS</td>
<td>Global Information System</td>
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<tr>
<td>HKI</td>
<td>Helen Keller International</td>
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<tr>
<td>HQ</td>
<td>Headquarters</td>
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<tr>
<td>HW</td>
<td>Health worker</td>
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<tr>
<td>IEC</td>
<td>Information, Education, Communication</td>
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<td>JAF</td>
<td>Joint Action Forum</td>
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<tr>
<td>LF</td>
<td>Lymphatic Filariasis</td>
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<tr>
<td>LGA</td>
<td>Local government area</td>
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<td>LOCT</td>
<td>Local Onchocerciasis Control Team</td>
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<tr>
<td>MDP</td>
<td>Mectizan Donation Program</td>
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<tr>
<td>MOH</td>
<td>Ministry of Health</td>
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<tr>
<td>MSST</td>
<td>Motion Sensitivity Screening Test</td>
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<tr>
<td>NGDO</td>
<td>Non-governmental Development Organization</td>
</tr>
<tr>
<td>NOCP</td>
<td>National Onchocerciasis Control Programme</td>
</tr>
<tr>
<td>NOTF</td>
<td>National Onchocerciasis Task Force</td>
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<tr>
<td>NTD</td>
<td>Neglected Tropical Diseases - department within WHO’s cluster of communicable diseases (WHO/NTD)</td>
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<tr>
<td>PAB</td>
<td>Projects Plan of Action and Budget</td>
</tr>
<tr>
<td>PHC</td>
<td>Public health care system</td>
</tr>
<tr>
<td>SAE</td>
<td>Serious Adverse Event</td>
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<tr>
<td>SHM</td>
<td>Stake Holder Meeting</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>SIZ</td>
<td>Special Intervention Zone</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<tr>
<td>SSI</td>
<td>Sight Savers International</td>
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<tr>
<td>TCC</td>
<td>Technical Consultative Committee (of APOC)</td>
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<tr>
<td>TDR</td>
<td>UNICEF/UNDP/WorldBank/WHO Special Programme for Research and Training in Tropical Diseases</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>UTG</td>
<td>Ultimate Treatment Goal</td>
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<tr>
<td>VAS</td>
<td>Vitamin A Supplementation</td>
</tr>
<tr>
<td>WHO AFRO</td>
<td>Regional office of the WHO African Region</td>
</tr>
<tr>
<td>WR</td>
<td>WHO country representative</td>
</tr>
</tbody>
</table>
1 Opening

1. The twenty-third session of the Technical Consultative Committee (TCC) of the African Programme for Onchocerciasis Control (APOC) was held from 11 to 15 September 2006 at the headquarters of APOC in Ouagadougou, Burkina Faso, under the chairmanship of Prof. Ekanem Braide. The list of attendants is provided in Annexe 8.1

2 Information

2.1 Matters arising from 113th CSA session

2. Dr. Amazigo summarized the major topics discussed at the 113th CSA session as follows:

- 2006 is a critical year for APOC and for former OCP countries. To address future options, a brainstorming consultative meeting and working group meetings were held following TCC 22. TCC was represented in these meetings by Professor Abiose.
- JAF 2005 had decided that all 30 onchocerciasis endemic African countries should meet to discuss the future of onchocerciasis control in the region. This meeting (referred to as the 'partners' meeting') will be held 26-27 September 2006 in Cameroon. The working group on the future of onchocerciasis control will provide their conclusions to the partners' meeting.
- The next JAF meeting will take place from 5 to 8 December 2006 in Dar-es-Salaam.
- Following a recent policy decision, USAID will not continue support for 5 CDTI projects in DRC.

2.2 Matters arising from the 28th meeting of the NGDO Coordination Group for Onchocerciasis Control

3. The NGDO Coordination Group for Onchocerciasis Control and the NGDO LF Network (founded about three years ago) held a joint meeting from 5 to 8 September 2006 in Geneva. Representatives of various WHO departments, and an observer from the West African Health Organization attended the meeting. The conclusions and recommendations of the meeting were presented, with the following brought to the special attention of TCC:

- The NGDO Coordination Group for Onchocerciasis Control re-emphasized the commitment of its members to supporting the extension of APOC to 2015 as a pan-African onchocerciasis control programme. It further noted that government contributions need to be increased to ensure sustainability of onchocerciasis control and that treatment and monitoring criteria should be uniform across APOC and former OCP countries.
- The group noted the downward trend in the total number of treatments in Nigeria since the reduction/cessation of APOC support to some of the CDTI projects. It requested TCC to identify a mechanism for reversing this trend.
- Delay in the release of APOC funds has resulted in treatment delays in some projects in Cameroon, Sudan, and Tanzania.
• The NGDO Coordination Group with its significant collective experience will request representation on the technical oversight board that will oversee allocation of USAID funding for neglected tropical diseases.
• Dr. Danny Haddad (HKI) was elected Vice-Chair of the NGDO Coordinating Group. He will assume the Chair as from March 2007, at which time Mr. Simon Bush (SSI) would become the Vice-Chair.

4. TCC discussed the following issues raised by the NGDO Coordination Group:
• The situation in Nigeria needs to be addressed on two fronts: the one being funding of onchocerciasis control activities and the other being integration of onchocerciasis control into the health system. APOC has had discussions with the MOH, Nigeria on providing funding for all activities required to get ivermectin to the communities. The TCC members from Nigeria were requested to support APOC management in mobilizing national/state resources through advocacy missions.
• APOC/SIZ’s efforts to improve treatment coverage in Ghana in both SIZ and non-SIZ areas: TCC encouraged APOC management to continue its discussions with MOH, Ghana, Ghana Health Service and the Regional Directors of Health on measures to improve treatment coverage, not only in the interest of Ghana but also of the countries it shares borders with.
• APOC/SIZ is working with the MOH in Côte d'Ivoire to improve onchocerciasis control. HKI requested that APOC validate the recent epidemiological data from South Côte d'Ivoire prior to actions being taken based on it.

5. The complete recommendations of this joint session of the NGDO Group for Onchocerciasis Control and the NGDO LF Network are attached in the Annexe (section 8.2).

2.3 Follow up to recommendations of 22nd TCC session

6. The following actions have either been initiated or completed by APOC Management in follow up to TCC 22 recommendations (for a complete list see Annexe 8.3):
• Loa loa endemicity maps have been updated and will be available on the APOC website.
• APOC Management is continuing to invite key personnel from the NOTFs to TCC meetings to build capacity and foster exchange of experience. The Chair of the NOTF and the national coordinator both of Angola were invited to TCC 23 but were unable to attend. In their place the CDTI project supervisor of the Lunda Norte/Lunda Sul project attended on 14 and 15 September 2006.
• APOC Management is working with WR offices on financial decentralization guidelines and on review of financial reports from the CDTI projects and NOTFs.
• APOC Management continues to provide NOTF coordinators and project leaders with effective guidance and training on correct reporting of treatment coverage based on total population and UTG.
• Following the positive outcome of the Phase 1 preliminary feasibility study, the main study on compliance was initiated, and is near completion.
• APOC Management will discuss with Dr Remme the creation of a Working Group Group before the end of this year. The said Group will discuss current knowledge and research needs on the connection between onchocerciasis, nodding disease, Nakalanga (dwarfism syndrome) and ivermectin treatment. The Group is expected to work with the TCC subgroup (headed by Dr. Boussinesq and including Dr. M.
Katabarwa and Ms. N. Haselow), recommended by TCC. An article, published in “Trends in Parasitology” by Marin et al. on the research questions to be posed in this regard, was distributed to the TCC.

- The data management programme, developed for Chad, has been installed in Burundi, Congo, Kasai province of DRC and in Nigeria. A plan is in place to roll out installation in all other APOC countries.
- APOC is following up with the NOTF of Cameroon to resolve the issue of leadership in the South West I CDTI project.
- APOC Management sent a mission to Liberia to reconcile differences between partners in the country, and to assist in the development of a plan of action for a better implementation of CDTI in Liberia.

7. Regarding the follow-up of the implementation of recommendation 17 of TCC 22 (see Annexe 8.3) TCC noted that:

- The primary problem with projected treatment and coverage figures is the inaccurate data for total population (denominator) in CDTI project areas. Thus, TCC recommended that an effort be made by all NOTFs and projects to ensure accurate determination and recording of total population in all communities covered by the project through improved training and supervision of CDDs. All community members, including children under five, pregnant and lactating women, and the sick must be counted and registered as part of a community’s total population. This is consistent with APOC’s target of having complete and accurate data on total population by 2008 for all onchocerciasis endemic communities. This data will facilitate better quality planning, implementation, and monitoring of other community-based disease control interventions in CDTI communities.
- ATOs are necessary for calculating annual Mectizan requests to MDP, and are also useful for setting annual treatment targets at the project level.
- Projects need more effective training on calculation and purpose of parameters and indicators such as ATO, %ATO, UTG, %UTG as well as geographic and therapeutic coverage.
- TCC suggested that APOC consider periodic random post-treatment surveys to validate reported coverage data.

8. APOC reported that implementation of CDTI in Equatorial Guinea, after its re-launch, is not progressing as expected. The APOC mission sent there was not provided with the necessary information by the NOTF coordinator. APOC had expressed the need to re-launch CDTI to the Ministry of Health but changes in government portfolios have occurred since then. Therefore, another advocacy effort will have to be undertaken.

9. Dr. Boussinesq reported that, as per discussion during TCC 22, a clinical study has been designed to assess whether ivermectin treatment reduces frequency of epileptic attacks. The principal investigator and a neurologist for the study will be asked to provide a protocol for possible funding for the consideration by APOC Management. Commencement of the study is planned for 2007. Other approaches proposed for evaluating the link between epilepsy and onchocerciasis are:

- Genetic evaluation of the *O. volvulus* strains in subjects from areas with and without unusually high level of epilepsy.
- Investigation of whether differences in blackfly strains are associated with differences in frequency of epilepsy
3 Strategic and technical issues

3.1 Rapid epidemiological mapping of onchocerciasis (REMO): update on the situation of onchocerciasis in Angola

10. Rapid epidemiological mapping of Onchocerciasis (REMO) was initiated in Angola in 2002. The first REMO exercise was restricted to 9/18 provinces because of inaccessibility due to armed conflict. A total of 9166 persons aged 20 years and above were examined in 275 villages by survey teams comprised of Angolan technicians and external technical experts (APOC temporary advisors). The analysis of the REMO results revealed that 13% of the villages were meso or hyper endemic, and 87% hypo endemic. The outcome of the first REMO resulted in a national Onchocerciasis control plan, and the establishment of the CDTI project of Lunda Norte and Lunda Sul. Between 2003 and 2004, additional surveys were carried out by Angolan technicians to complete the REMO map. The results (2002 to 2004) formed the basis for the seven CDTI projects planned in Angola (Lunda Norte/Lunda Sul, Moxico 1, Moxico 2, Huila, Kuando Kubango, and Bengo/Uige/Cuanza Norte).

11. Validation of the REMO results in Cabinda and Moxico was carried out in July 2006. Moxico was confirmed as a CDTI area, while Cabinda was found to be hypo-endemic.

12. TCC welcomed the information that onchocerciasis is hypoendemic in Cabinda, approved the cessation of the Cabinda CDTI project and asked APOC management to forward this information to the NOTF of Angola.

13. TCC asked for more information to assist APOC management make a decision on the request to split the project of Lunda Norte/Lunda Sul into two for logistical reasons. Based on a review of the documentation provided, TCC endorsed the splitting of the project.

3.2 Update on RAPLOA and management of SAEs

14. RAPLOA was conducted in the Democratic Republic of Congo in the following areas in 2005 and 2006:

<table>
<thead>
<tr>
<th>Province</th>
<th>CDTI project areas</th>
</tr>
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<tbody>
<tr>
<td>Equateur</td>
<td>North Ubangui, South Ubangui, Mongala, Tshuapa, Equateur Kiri (including province Kiri which is part of the Equateur Kiri CDTI project but belongs to the province of Bandundu)</td>
</tr>
<tr>
<td>Orientale</td>
<td>Uele, Tshopo</td>
</tr>
<tr>
<td>North Kivu</td>
<td>Masisi-Walikali, Rushuru-Ngoma</td>
</tr>
<tr>
<td>Maniema</td>
<td>Kasongo, Lubutu</td>
</tr>
<tr>
<td>Kasai orientale</td>
<td>Sankuru</td>
</tr>
<tr>
<td>Katanga</td>
<td>North Katanga, South Katanga, Lualaba</td>
</tr>
<tr>
<td>Bas Congo</td>
<td>Bas Congo</td>
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</tbody>
</table>

Maps on the endemicity of Loiasis and the risk of occurrence of severe adverse events (SAEs), in areas where onchocerciasis and loiasis are co-endemic, were presented to TCC. Co-endemic districts or 'health zones' identified are:
• Equateur: districts of South Ubangui, North Ubangui, Mongala and Tshuapa
• Orientale: districts of Tshopo and Haut Uele
• North Kivu: Beni, Pinga, Dulwelikale 'health zones'
• Maniema: Lubutu, Punia, Kasongo 'health zones'
• Kasai orientale: Katako-Kombe, Lodja Nord 'health zones'
• Bas Congo (hypo-endemic for onchocerciasis): Bas Fleuve district

16. APOC Management should get from TDR, the data of the validation of RAPLOA in DRC and this data should be integrated in the final map of Loa loa in DRC.

17. As of June 2006, a total of 76 SAE cases (of which 17 had coma complications), in which the presence of loiasis was confirmed, had been recorded in Nord Ubangui (55 cases / 15 coma), Sud Ubangui (20 cases /2 coma) and Uele (1/0). There were no deaths, which suggests that the technical and financial support of APOC HQ and Mectizan Donation Program (MDP) to the DRC SAEs management units and subunits were efficient and properly used by the NOTF of DRC.

18. As of 8 September 2006, 261 SAE reports from DRC had been received by the MDP, which is analysing them. One death was recorded. Preliminary analysis indicates that a number of the reports describe individuals who were admitted for observation, but did not experience SAEs. MDP will sponsor a workshop in DRC in October 2006 to discuss the reported cases, SAE management and overall reporting.

3.3 Vector elimination activities with special emphasis on Mpamba-Nkusi, Itwara (Uganda), Bioko (Equatorial Guinea), Tukuyu (Tanzania)

19. A workshop was held in May 2006 to evaluate the results of these vector elimination activities and to make recommendations on criteria for the certification of vector elimination in APOC countries. The conclusions and recommendations of the workshop are attached in the Annexe 8.4

3.3.1 Mpamba-Nkusi

20. As per TCC20 recommendations, a summary of the activities was presented in March 2006. Only two adults of *S. neavei* were caught in the whole focus between January and December 2005. However, several positive crabs (with pre-imaginal stages of the vector) were trapped in the main focus.

21. Workshop participants recommended that:
   - During the 2006 campaign, which APOC has already financed, a special effort be made to identify and address any source of persistence of the vector in the focus.
   - Entomological surveillance (*Simulium* larvae and biting blackflies) be maintained, and that at the end of 2006, the situation be assessed.

3.3.2 Itwara

22. The focus consists of the main focus of Itwara and two sub-foci of Siisa and Aswa. In the main focus, the last temephos treatment was conducted in February 1997. In the sub-foci, local larviciding was conducted until 2003.
23. In line with the recommendations of TCC 20, a summary of the results of the entomological surveillance exercise conducted in the Itwara focus in 2005 was presented at the workshop. No adults of *S. neavei* nor positive crabs were caught since 1997 in the main focus and since 2003 in the sub-foci.

24. Workshop participants recommended:
   - the cessation of surveillance in the main focus.
   - an additional round of catches and crab trapping in the sub-foci of Siisa and Aswa. A budget for this has been allocated by APOC management. If larvae of the *S. neavei* are discovered, localized larviciding must immediately be undertaken.

3.3.3 Tukuyu

25. In conformity with TCC19 recommendations, a second and last larviciding campaign was undertaken from July through October 2005. Entomological activities (prospections and catches of biting female) were to be conducted in the focus before, during and after the campaign.

26. For budgetary reasons, the insecticide treatment was performed only through September 2005, and the standard post-treatment evaluations could not be conducted. The limited evaluation performed indicated the presence of anthropophilic blackflies at least on the Lumbira River. Furthermore, larvae were collected in the Tukuyu focus following the larviciding. Because of financial constraints, a complete cytogenetic and molecular characterization could not be performed. The limited data available suggest that *S. thyolense* may have been replaced in the main focus by non-anthropophilic species. If this were indeed the case, then vector elimination, at least in this main focus, could be said to be achieved.

27. If, however, there is proof of continued presence of *S. thyolense* in the focus, then it could be concluded that, the elimination of anthropophilic vectors is not an option, and that a vector control programme needs to be considered. Such an activity is outside the mandate of APOC, though it could give technical assistance for drawing up a future national plan of action.

28. The required duration of total absence of the vector in the focus, between the end of larviciding and the confirmation of vector elimination, is three consecutive years. This period must be characterized by the strengthening of the network for evaluating adult and pre-imaginal stages.

29. Workshop participants recommended that:
   - To test the validity of doubts about the isolation and extent of the focus, a complete blackfly (larvae and adults) collection operation be conducted, as soon as possible, in the entire focus by the NOTF of Tanzania, followed by the morphologic, cytogenetic and/or molecular identification of the larvae and adults caught.
   - APOC Management should bear the cost of these catching and identification operations. This is critical for the vector elimination certification in the Tukuyu focus.

30. TCC endorsed the recommendations of the workshop, requesting that APOC approve the funds required for catching and identification operations.
3.3.4 Bioko

31. Between January and August 2006, entomological surveillance was conducted in the focus and included:
   - Prospections on 91 rivers with 132 breeding sites
   - Catching of biting females in 198 days

32. No larvae and/or adults of the *S. yahense* Bioko form have been found on the island. The absence of the *S. yahense* Bioko form, must be confirmed by current evaluations.

33. Participants made the following recommendations:
   - To overcome the risk of waning motivation of vector collectors, due to the absence of anthropophilic blackflies, APOC should maintain its assistance to the current surveillance network until the end of 2008, and enhance the supervision of catching activities by sending specialised external teams, familiar with the island, during periods of maximal productivity of the breeding sites.
   - An investigation should be undertaken, immediately, on the possible sources and modes of re-infestation of the focus by blackfly populations coming from the continent (aided by planes, boats, dominant winds, etc.).
   - In the event of reappearance of blackflies (larvae or adults) in the Bioko focus, APOC Management must be immediately informed, so that an appropriate response plan can be put in place as a matter of urgency, in collaboration with the NOTF.
   - A last assessment of the impact of insecticide treatments on the aquatic fauna should be undertaken in the Bioko focus to ensure that the non-target fauna has not suffered any irreversible harm.

3.4 Update on MACROFIL

34. Screening of nearly 1000 compounds since September 2005 has resulted in several interesting compounds, which warrant follow up. A partnership involving Pfizer and Chemtura, aimed at discovery of drugs will make thousands more compounds available for screening. The intensified activity in the area of drug discovery arising from partnerships and networking, provide a framework/boost for the Helminth Initiative being sponsored by TDR to facilitate the discovery and development of new compounds.

35. Data from the evaluation of emodepside (a new anthelmintic compound with exceptionally good activity against adult worms of *Onchocerca gutturosa*, and microfilariae of *O. lienalis*) activity against *O. volvulus* (obtained from human subjects) are expected in the fourth quarter of 2006.

36. Based on results of the clinical testing of a first prototype of a diethylcarbamazine citrate (DEC) patch that utilizes transdermal drug delivery technology, a new prototype of the DEC patch was developed and tested clinically. This patch is safe, produces recognizable local reactions, and thus has potential for use in the field.

37. The study characterizing the early clinical and pathological effects of *Brugia malayi* infection in children and the effect of albendazole on these has completed recruitment (100 children). The follow-up of subjects will continue for around 3 years.

38. Pre-study and initiation visits for the study, meant to evaluate the effect of multiple 2-monthly doses of albendazole on *Loa loa* filaremia, are scheduled for October 2006.
With screening anticipated for November, the final study data will be available in the first or second quarter of 2008.

39. The proof-of-concept study for the safety and efficacy of moxidectin in subjects infected with *O. volvulus* at OCRC, Hohoe, Ghana started in September 2006. The study will take around 40 months to complete. TDR is now focusing efforts on preparation for the outpatient Phase 3 study, which should be initiated in mid-2008, after the proof-of-concept study data have shown that moxidectin is as safe and microfilaricidal as ivermectin. TDR is expecting that site preparation (equipment, training in study specific procedures and Good Clinical Practice) will take around one year and is thus targeting the second quarter of 2007 for finalizing site selection. TDR asked TCC members for suggestions for sites for the Phase 3 study. The minimum requirements for sites are:

- Access to populations infected with, or at risk of infection with *O. volvulus*, who will not have received more than 3 rounds of ivermectin treatment by mid-2008
- Availability of adequate and appropriate health care staff (e.g. physicians, nurses, technicians)
- Stable political environment and population movement that makes it likely that subjects can be followed up successfully for 2 years.

3.5 Impact of Phases I and II APOC operations: comparative analysis of results

40. The chairperson informed TCC that a workshop for finalizing and publishing the report on Phases 1 and 2 of the long-term impact assessment of APOC operations was held in July (3-12), 2006. Selected members of Teams 1, 2, 3, and 4 worked together to produce four main papers, one on each of the different aspects of the study – entomology, dermatology, ophthalmology and socio-demography. These papers are undergoing final editing for publication. Other papers are being prepared on Motion Sensitivity Screening Test (MSST), DEC patch test, Coverage and Entomology findings for sites not included in the main paper.

41. Since the objective was to assess impact of APOC interventions on communities, the study was designed as a cross-sectional study (not as a longitudinal one looking at the same individuals) of clinical symptoms and entomological indicators of onchocerciasis transmission before and after several rounds of ivermectin treatments. This needs to be taken into account during interpretation of the results.

42. Dr. Boussinesq presented the dermatological and ophthalmological results of the multicentric-multicountry impact assessments. The assessment is based on the comparison of data from 1998 to 2000 and 2004 to 2005, obtained from 13 sites with different epidemi-entomological characteristics. A summary of the results is provided in the Annexe 8.5.

43. TCC recommended that further detailed analyses be conducted to clarify the relationships between the changes in prevalence rates of the dermatological and ophthalmological symptoms observed, and the therapeutic coverage in the various sites. Information on the therapeutic coverages obtained at each of the five treatment rounds, as assessed by the CDTI projects, will be used for the analyses.

44. Professor Traore reported on the results of the entomological assessments. The number of infected females and infected larvae per 1000 parous flies and the Annual Transmission Potential were determined in one catching point close to one breeding site.
at each of 10 sites from different ecological settings (2 in Cameroon, 2 in CAR, 3 in DRC, 2 in Nigeria, and 1 in Tanzania). The identification of the flies indicates the presence of *S. soubrense / S. squamosum* in all sites, except in Lusambo where the species was *S. neavei*. Some *S. damnosum s.s. / S. sirbanum* were caught in Boali (CAR), Yalala falls and Yalala village (DRC). In Morogoro (Tanzania), the vector species at the study site was identified as *Nkusi “J”* form.

45. In Cameroon and Nigeria, 5 years of CDTI brought about significant decreases in the three entomological indicators, however none fell below acceptable threshold. A similar reduction was observed in areas without multiple CDTI rounds. Data on the species of the infective larvae need to be available before conclusions from the entomological data can be drawn. The differences found between the data of Phases 1 and 2 are consistent with the expected changes at the community level based on previous experiences.

46. Prof Braide presented observations by the investigating social scientists on socio-demographic indicators of 6 endemic communities (Ikom, Olomaboro, and Gashaka (all in Nigeria), Bushenyi in Uganda, Raja in Sudan and Morogoro in Tanzania) at baseline in 1999 and follow-up in 2004. Information gathered through household survey, key-informant interviews and Focus Group Discussions, show the following:

- Although there was a general decline in unemployment, reasons for not working shifted from “sickness” in 1999 to “schooling” and “no work” in 2004.
- Educational enrolment increased in three sites.
- There was a decline in the number of separation/divorce cases in three sites. Conflict, which was common in the nuclear family in 1999, seemed to have reduced in 2004.
- Indicators of wealth tended to have shifted in all sites, from philosophical statements in 1999 to concrete economic values in 2004.
- Respondents in all sites in 2004 listed the black fly spontaneously, as a major cause of onchocerciasis before mentioning other suspected causes. Knowledge of the symptoms of the disease in 1999 and 2004 was overwhelmingly high in most study sites.
- The attitude of people towards affected persons in the communities remained negative in 2004, in spite of the fact that respondents confirmed that the disease could be cured with ivermectin (Mectizan). The open and repulsive stigmatisation observed in 1999 remained unchanged, though stigmatisation in 2004 was limited to the blind (independent of aetiology).
- Expenditure on health increased in four of the six sites by 2004, with most of the expenditure being on ailments other than onchocerciasis.

47. It is suggested that health education be intensified, and sustainability addressed to increase social impact of APOC operations by Phase 3 of the study in 2010. Provision of services to blind persons will have a positive impact on blindness-induced conflicts, and should therefore be a component of onchocerciasis control programmes.

48. TCC recommended that qualitative data be subjected to systematic analysis and linked to quantitative data. It was also recommended that the economic impact of APOC operations in CDTI projects be measured in separate studies, since the socio-demographic indicators adopted for the impact assessment studies were not designed to measure socio-economic impact.
49. The Director informed TCC that APOC has commissioned the refinement of ONCHOSIM with available data from APOC countries (including data from the impact studies) as well as transmission studies currently being conducted by TDR. The programme will be made available to each country as an aid to making country-specific and/or localized decisions on onchocerciasis control strategy.

3.6 Contribution of APOC to human resource development

50. APOC's mandate in Phase II includes technical training programmes for nationals on the management of integrated health services, monitoring and evaluation, health education, impact assessment, epidemiology and disciplines for improving efficiency in distribution and the control strategy. Main target groups for this training are CDDs, trainers and supervisors of CDDs (health care personnel, CBOs, NGDO staff members), and NOTF members.

51. APOC conducted training in:
   - implementation of CDTI for health care personnel and community volunteers
   - monitoring and evaluation of projects (independent participatory monitoring, community self-monitoring, evaluation of the sustainability of CDTI, monitoring the implementation of sustainability plans).
   - data management and analysis (Healthmapper, Atlas*GIS, SPSS)
   - research methods (with focus on operational research: writing of research proposals, planning and conduct of research activities, writing of scientific articles)
   - administration and financial management (in particular in WHO context)
   - management of SAEs
   - vector control (ground and aerial larviciding, entomological surveys, environmental impact assessment)

52. Training manuals were generated for
   - CDTI
   - Independent participatory monitoring
   - Community self-monitoring
   - Evaluation of sustainability of CDTI
   - Monitoring the implementation of sustainability plans
   - Data analysis

53. Expanding scientific knowledge on onchocerciasis included preparation of over 30 articles on work supported by APOC for publication in peer review journals.

54. In summary, APOC contributed to developing human resources in health care:

<table>
<thead>
<tr>
<th>Areas of capacity building</th>
<th>People trained 2002-2006 (&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOC philosophy CDTI Strategy</td>
<td>155</td>
</tr>
<tr>
<td>CDTI implementation (HWs &amp; CDDs)</td>
<td>285,000</td>
</tr>
<tr>
<td>Management of SAEs</td>
<td>271</td>
</tr>
<tr>
<td>Financial management</td>
<td>81</td>
</tr>
<tr>
<td>Data management and analysis</td>
<td>242</td>
</tr>
<tr>
<td>Monitoring &amp; Evaluation of sustainability</td>
<td>230</td>
</tr>
<tr>
<td>Independent Participatory monitoring</td>
<td>18</td>
</tr>
<tr>
<td>Operational research</td>
<td>28</td>
</tr>
</tbody>
</table>
55. APOC has started an initiative to promote a culture of routine community data collection, and improve reporting and assessment of CDTI implementation. The objectives of the implementation of a sustainable CDTI information system at country level are:

- To promote among CDTI project managers the culture of routine data collection and management.
- Make available to NOTFs and APOC management, the data collected at the different levels of CDTI implementation, in particular community data, since the inception of CDTI.
- Promote the use of data for decision-making to provide special support to sub-districts or communities that do not perform well in terms of treatment coverage.

56. It is the view of APOC that data collection on community (location of communities, population data, health care workers and CDDs training, ivermectin procurement, supervision by HW, financial contribution of communities) would provide the following benefits:

- Improved data on project performance (use of ivermectin, community compliance, and % of communities which achieved 65% coverage)
- Improved information for planning of CDTI (use of ivermectin, workload of CDDs, ivermectin orders, CDD dropout rates, treatment refusal rates, trends in treatment coverage, mapping of treatment coverage)
- Benefits provided, through the community data collection to other programmes, include availability of lists of health districts and sub-districts, list of villages/communities, geographical location of communities, census data with demographic indicators, community registers presenting detailed information (useable also for operational research purposes).

57. An easy-to-use, customized, computerized tool, developed for CDTI data entry and data summary was demonstrated. This demonstration allayed TCC members’ concerns regarding the criteria for selection of people to be trained and the software chosen.

### 3.7 Expanding the use of effective control tools for neglected diseases and a guide for integrated control of neglected tropical diseases using preventive chemotherapy: approaches to implementation

58. Dr. Engels presented WHO/NTD’s control approach to neglected tropical diseases, in particular helminthiasis, including onchocerciasis.

- WHO recommends that countries adopt preventive chemotherapy as an integral part of their basic public health package. As in the case of immunization, where children receive early protection against a set of common infections according to a schedule of vaccinations and booster doses, people can also be protected against a set of common tropical diseases and their severe manifestations through a schedule of systematic treatments that start early in life and continue into adulthood. This service would be delivered through the routine health services to ensure sustainability.

- WHO/NTD has issued a manual "Preventive chemotherapy in human helminthiasis: coordinated use of anthelmintic drugs in control interventions" which advocates...
much greater coordination among disease control interventions which have hitherto been seen as specific and therefore implemented separately, e.g. IVM+ALB, IVM or DEC+ALB treatment depending on whether or not onchocerciasis and lymphatic filariasis are co-endemic or not. Praziquantel has not yet been included in the combination treatment considerations because while pharmacokinetic interactions have been ruled out by a study sponsored by TDR, there are potential concerns on efficacy-related drug interactions. WHO/NTD is sponsoring two studies that are aimed at evaluating these interactions.

- Johnson and Johnson has pledged donation of mebendazole for use in school and pre-school children. 30 Million tablets are expected to be available in 2006. Praziquantel costs US $0.20/treatment. Due to issues of funding and manufacturing capacity, the supply of praziquantel is a challenge for sustained chemoprevention. WHO/NTD in Geneva will address.
- WHO/NTD will issue a manual on 'integrated monitoring and evaluation' which will focus on coverage and progress towards WHO goals and targets, impact on health, well-being and economic development, impact on disease-specific indicators.
- WHO/NTD at HQ recommends that strategies for implementation of the guidelines be generated on a regional and country level, since opportunities for co-delivery are likely to vary according to continent, country or place.
- Integrated approaches may make it easier to show cost-effectiveness and impact on socio-economic development. This is also important for motivating donors/development agencies.

59. Dr. Mubila presented the guide for integrated control of neglected tropical diseases using preventive chemotherapy. A draft based on consultation with representatives from 11 different countries in the WHO AFRO region is available.

- To ensure that integration of different health interventions does not result in reduced performance of individual programmes, the guide recommends that disease specific managers are maintained.
- The guide presents among other things benefits of integration, help for decisions on implementing integration, opportunities and different approaches to integration, solutions to likely challenges and constraints, approaches to monitoring and evaluation.
- More details are provided in Annexe 8.7.

60. Dr. Amazigo welcomed WHO/HQ and WHO/AFRO presentations, and expressed interest in close collaboration with APOC. This will allow a joint approach to learning from the experience of APOC in implementing community-directed interventions as well as their monitoring and evaluation. Dr. Amazigo suggested collaboration in organising future national meetings on integration. The meetings previously organized by APOC in Uganda, Tanzania and Nigeria have proven very helpful to the countries in moving towards integration. Dr. Amazigo invited WHO/NTD representatives to future TCC meetings.

61. Dr. Engels expressed NTD's interest in collaborating with APOC since WHO/NTD can benefit from critical lessons and experiences APOC can provide. WHO/NTD welcomes Dr. Amazigo's suggestion for collaboration in organising meetings for public health managers and national coordinators, and offered co-funding. While CDI is agreed upon as an approach to be followed, technical problems remain to be resolved with regard to integration. Dr. Engels deemed that APOC and TCC were well placed to provide guidance on implementation and operational research requirements, based on
their prior experience. APOC could also assist WHO/NTD in the mapping of disease distribution in areas of potential integration.

62. TCC expressed its appreciation for the presentations made by Dr Engels and Dr Mubila. The presentations demonstrate opportunities that exist for the co-implementation of control of various neglected diseases, and their ultimate integration into the health systems of individual countries.

63. TCC recognized the opportunity that exists to expand the use of the Community-Directed Intervention developed by APOC for onchocerciasis and the existing CDTI structures in participating countries to support the prevention and control of other neglected tropical diseases. Human resource base and census enumeration data are two such structures. In this regard, the committee welcomes the developing collaboration between APOC and WHO/NTD and endorses the invitation extended by the Director of APOC to WHO/NTD to attend future TCC meetings.

64. This kind of collaboration would provide opportunities to jointly address technical issues, such as the safety of co-administration of drugs, and the use of existing tools and competencies within APOC to complete the mapping of the various tropical diseases in individual countries. For instance, the possibility that rapid assessment methods could be applied by the CDDs should be considered where appropriate. TCC recognizes the important role of national governments in integration and the importance of advocacy to the achievement of the objectives thereof. TCC welcomes the proposal of the Director of APOC to hold a meeting of National Public Health Directors early in 2007 on this subject and the offer by WHO/NTD to co-finance it.

3.8 The future of onchocerciasis control in Africa: report of the Working Group

65. A Working Group was set up by CSA in accordance with recommendations of JAF11 to reflect on and make proposals regarding:

- Broadening the mandate of APOC to include former OCP countries
- CDTI and integration
- Possible extension of the duration of APOC
- Financing of the programme.

66. Members included A. Abiose, M. C. Hodgkin, D. Molyneux, B. Philippon, M. Reich, H. Remme, B. Thylefors, and M. S. Traore. The working group held one consultative meeting involving representatives of APOC and former OCP countries, Special Intervention Zones, NGDOs, Donors, CSA and researchers. Three advisory group meetings were held.

67. The recommendations made took into account the following considerations:

- The necessity to build on and secure the achievements of OCP and APOC
- Changes in the landscape of health and development including changes in priorities and policies, new challenges, political instability and scientific development on the global, regional and country level
- Key challenges for onchocerciasis control in Africa:
  - Establish and sustain adequate treatment across Africa
  - Determine when and where to stop treatment with ivermectin
  - Ensure effective surveillance after end of active control.
68. The recommendations of the working group will be presented to the partners' meeting in Yaounde in September, and to JAF in December 2006.

4 Management of APOC Trust fund

4.1 Report on the financial management of APOC funded projects

69. Of the 118 plans of action and budget (PAB) expected for 2006, 113 were actually received. As of 31 August 2006, Letters of Agreement for 102 PABs had been prepared, signed, and the associated funds released.

70. Of the 2416 financial returns expected, 1843 were actually received of which 1771 (96% of the received returns) were analysed either by country or APOC HQ levels.

71. As of 31 August 2006, 81 projects were more than 3 months late in submitting the financial returns. The release of funds to these projects has been suspended pending receipt of their reports. The need for the rectification of this situation is dire given that the deadline for the final transfer of funds is November 2006.

72. Guidelines for the decentralization of some financial functions to WHO/Country offices are being prepared.

73. The attention of the TCC was drawn to the non-submission of project PABs for 2007. Of the 112 PABs expected for 2007, only 35 had been received as at 31 August 2006. Further delays in the submission of these documents could result in the late release of funds for activities to be held in 2007.

74. The issue of harmonizing the financial report submission format in the APOC Financial & Administrative Manual and the tables in the Annual Technical Report (Tables 13 & 14) was also brought up.

4.2 Ivermectin distribution-related costs: responsibility of NOTFs to bear at least 25% of the CDTI project costs

75. The preliminary analysis presented to TCC was carried out as a follow-up to recommendation 20 of the APOC External Evaluation, which states that APOC should prepare an analytical paper on issues related to the NOTFs’ responsibilities of covering 25% of project costs, and step up efforts to track their expenditures. JAF11 endorsed this recommendation, considering that the APOC MOU specifies that non-APOC expenditures for CDTI paid by the governments and NGDOs are to be at least 25% of the total annual costs with an increase in the proportion of their contributions over time.

76. A procedure is being worked out for data collection - past and prospective – and creation a database. Data collection will, in theory, not be a new exercise, but a strengthening of procedures already used by partners, whose renewed commitment to accurate financial reporting is essential. A database with complete, reliable and validated figures, could contribute to management and decision-making at APOC, and be used by all for more effective advocacy.

77. Adequate implementation of the said recommendation 20 will have implications for the job content of some staff of APOC HQ and perhaps ultimately staffing levels.
TCC commended APOC for having initiated the data collection, review and analysis and congratulated the team directly responsible for the work done on their efforts and the presentation. 

TCC expressed concern about the resources (personnel time and travel costs) APOC Management will have to invest to correctly track and validate government and NGDOs (NOTF) funds provided for CDTI projects in their reports. No provisions for such activities have been made in the APOC workplan and budget for 2006 and onwards. Given the additional costs, TCC stated that there should be a clear benefit of this analysis to APOC, and the sustainability of onchocerciasis control. The exercise should reinforce existing system (e.g. NGDO and member country annual reporting at JAF, annual financial and technical reporting by projects) and interface with other data already collected by APOC (e.g. capacity building, treatment coverage, etc.) in order to correlate outputs with costs.

TCC advised caution in using data contained in annual technical reports of CDTI projects as they could be prone to under-reporting of expenditure due to the difficulty in determining the correct items to capture. Herein lies a fundamental problem with the proposed tracking of government expenditure given the difficulty in standardizing ‘allowable’ expenditure items.

TCC noted that the upcoming Partners’ Meeting in Cameroon will be a good opportunity to advocate to participating governments to raise the level of their financial contributions to CDTI projects in order to sustain onchocerciasis control efforts in their countries.

TCC recommended that APOC’s plans for collecting and tracking NOTF expenditure be presented to and discussed with the NGDO Coordination Group for Onchocerciasis Control.

5 Project reviews

5.1 Report on the review by APOC management of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th year progress reports and subsequent year budgets

A total amount of US $ 6,124,255 was budgeted for funding projects in 2006. As of 31 August 2006, US $ 4,122,015 had been disbursed to 86 national projects (78 CDTI projects, 3 Vector Elimination projects, 5 HQ support projects) and other activities. The outstanding US $ 2,002,240 was earmarked for a total of 28 national projects (25 CDTI projects, 1 Vector Elimination project, 2 HQ support projects) and Vitamin A supplementation for 9 projects in Nigeria and Tanzania.

US $ 1,278, 374 of the outstanding has been used to finance extra activities requested by JAF and others arising out of the external evaluation. These activities are the Health Impact Assessment study by the Rotterdam University, Compliance & Incentives studies, Training & Workshops, Working Group on the Future of APOC, Partners Meeting, Report, Proposal writing and Resource Mobilization Workshop.

The Partners Meeting and Working Group on the Future of APOC were supposed to be financed by the World Bank. However, the World Bank asked APOC Management to use the Trust Fund to finance these activities.
5.2 Review of new project proposals

86. The programme document describing Phase 2 of APOC stipulates that the Trust Fund can be used to support adding other interventions ('add-ons') to CDTI, provided that the implementation of such ‘add-ons’ will enhance the sustainability of CDTI and achievement of the overall goal of APOC.

87. Of the 7 proposals on the integration of Vitamin A into CDTI expected from Nigeria 5 were received for Cross River, Kogi, Taraba, Gombe and Kwara States. The budget for these came to US $ 108,230. An amount of US $ 86,791 was presented by APOC management for approval.

88. The TCC duly reviewed the proposals and recommended that the proposals be funded for one year subject to amendments being made to address the following:

- These project areas (with the exception of Gombe) have already piloted integration of VAS into CDTI in 2003 and 2004. Although this strategy was interrupted in 2005 and 2006, for various reasons, the projects should build on lessons collectively learned, and proposed activities should incorporate outputs from the pilot phase rather than start a new as implied in the proposals reviewed.
- TCC noted that the proposals did not address how women post-partum will receive VAS and Ivermectin throughout the entire year and whether children 6-59 months will receive one or both of the recommended six-monthly doses. In addition, the proposals do not mention how CDTI will be changed to incorporate VAS.
- TCC requires that the projects include VAS and CDTI indicators for measuring success of the integration.
- TCC was concerned that these projects did not demonstrate how integration of VAS into CDTI will be sustained after the one year of funding.
- The Committee proposed that budgets be revised to reflect the necessary costs of integrating VAS into CDTI, and should not include only CDTI-related activities or those for developing programme materials already available.

89. TCC recommended that a workshop be supported by APOC, prior to implementation, to harmonize the proposed projects and share lessons learned on integration of VAS and CDTI in Nigeria. It further suggested that given the incorrect information on Vitamin A in several of the proposals, a technical expert on Vitamin A should participate in the workshop. NGDO partners as well as focal persons for onchocerciasis and nutrition in each state should also participate.

5.3 Review of Annual Reports

5.3.1 Nigeria

Observations across projects in Nigeria

90. TCC noted, with disappointment, the high number of poorly written reports from Nigeria and wondered why the NOTF secretariat would endorse such poor reports.

91. TCC made the following recommendations:

- There is a need for the task forces at each level to support projects. The effectiveness of these task forces should be reflected in the quality of task force meetings and follow-up actions. They should be using these to improve the quality
of reports, as APOC provides funds to NOCP and expects it to provide support to projects. (Fig.1).

- All reports submitted to TCC must be endorsed. Officials endorsing reports should read and vet reports before endorsing them.
- Projects should be supported to review total population, census and UTG. Fluctuations, when they occur, should be explained in the reports.
- Projects should be monitored and supervised to ensure that CSM is institutionalised, and CDDs are trained.
- Women participation in CDTI should be encouraged.
- The determination of the 'community', for CDTI purposes, should be by community members. However, they should consider the following:
  - current size as known by community members
  - convenience of walking and mobilising other community members within a short period of time
  - guiding community members to identify an appropriate size of the existing structure that they will comfortably call their community
  - the community may be divided into well-known neighbourhood/or kinship/kindred zones with known names
  - in case of urban or semi-urban communities, these neighbourhood zones may not be based on kindred, but on convenience as far as administration is concerned.
  - efforts should be made to select female and male CDDs at the neighbourhood/kindred or in urban/semi-urban areas, the smallest and most convenient administrative unit.

92. TCC was informed that, the withholding of funds by APOC and Carter Center from Imo and Abia projects has been reviewed, and that funds are now being released to the projects.

93. TCC was informed of the Special Country Initiative for 10 projects in Nigeria. The sum of 193,044 US$ was approved by APOC Management for community mobilisation, production of IEC materials, training of health staff at all levels and CDDs etc in Nigeria. This is a great opportunity for building capacity in the projects. The NOCP and APOC consultants will monitor the activities in each state. It was suggested that targets be agreed for these activities between APOC and the Projects. The NOCP needs to improve coordination of its activities to justify the funds expended on the projects.
Akwa-Ibom State: 2nd year report

94. This project achieved a geographical coverage of 96%, and a therapeutic coverage of 44%. Treatment was done during the farming season. In the future, the project will allow communities to make the decision on treatment timing.

95. The report was poorly written, scant on details and hence was rejected. The committee requested that it be resubmitted at its next meeting. The report should be read and edited by signatories before endorsing and transmitting to TCC. Suggested improvements in content and additional information include:

- An executive summary presented in a narrative form,
- More detailed background information,
- An indication of number of CDDs trained as well as those active
- A description of how surplus tablets are handled
- Issues identified during supervision outcomes and feedback
- Recommendation arising from participatory independent monitoring and extent of implementation of these
- A more detailed description of advocacy activities
- A disaggregating of information on community involvement along community/district lines to show clearly the areas that need help.

96. Project performance needs to be improved particularly in the following areas:

- Training of more health officers.
- Training of more CDDs.
- Commencing of SHM and CSM.

Adamawa State: 6th year report

97. The project has achieved reasonable overall programme progress, resulting in a 100% geographic coverage, and a therapeutic coverage of 82%.

98. There is still variation in the number of endemic communities (number of communities increased from 2,070 in 1999 to 2,980 in 2004; then declined to 2,784 in 2005. Total population increased gradually from 730,188 in 2000 to 1,013,941 in 2004, then declined to 1,004,256 in 2005.) CSM and SHM have not yet been introduced. There is poor involvement of women in all activities, and no single female CDD. The CDD: population ratio is still very low at 1:478 at year 6. Capacity building is inadequate, and no new CDDs and LGA staff have been trained.

99. The report was accepted, but better collation of tables especially those in landscape format in future reports is recommended.

100. TCC recommends that the project:

- finalize the determination of the number of endemic communities, so that this remains consistent in future reports
- integrate ivermectin supply in the routine MoH drug system (if existing)
- carry out training for CSM and SHM, and introduce them
- encourage involvement of women
- train more CDDs, and increase the CDD to population ratio
- continue advocacy with LGAs to sustain support to CDTI
Anambra State: 6th year report

101. This project achieved geographic and therapeutic coverage of 100% and 84.5% respectively; 604,379 people were treated.

102. The report covers activities from 10/2003 to 9/2004, but was submitted much later in July 2006 to TCC. Nevertheless, the report was accepted with suggestions for improving it, as well as project implementation, and with a request for clarifications to be provided to the next TCC.

103. Suggestions for improving the report: The report follows the guidelines and contains most of the information required, but

- Report submission should be more timely.
- Some inconsistencies and errors remain. Therefore the project is requested to review future reports more carefully, prior to submitting them to TCC.
- The UTG should not be higher than the total population. The project should get clarification on how to calculate the UTG.
- The timelines should be presented so that differences between LGAs can be seen.
- The project should explain the sharp decrease in the total population, and the number treated from previous years. Even if a census was taken to clarify total population, there is need to explain why the number treated in year 5 was higher than the total population in year 6.

104. The project is commended for maintaining high coverage rates, with very little funds and no APOC or NGDO contributions, although the data should be verified as noted above.

105. Suggestions for improving project performance are:

- Whilst the project is commended for the recruitment and training of CDDs, 50% of whom are female, recruitment and training of CDDs needs to continue to bring the population:CDD ratio down to no more than 150:1 from the current level of 258:1. A reduced ratio may reduce demands for incentives.
- The project should consider developing and submitting an operations research proposal to APOC to assess the current IEC strategy and messages. This is important for improving advocacy to ensure adequate financing of project activities.

Borno state: 5th year report

106. TCC considered project performance as poor given the following:

- Geographical coverage is about 76% and therapeutic coverage 58.8% in the sixth year. This is not significantly different from the previous years.
- There is only 1 CDD per community (1 CDD per 635 people) and some communities lack CDDs. There are plans to increase the number of CDDs, but no strategy on how this will be achieved has been given. Lack of incentives for some CDDs is identified as one of the main challenges.
- There is minimum involvement of women.
- Financial contributions by the state and LGA have not been regular, and what is budgeted is not normally released.
- Supervision seems to be inadequate.

107. The project report was rejected because the data provided was inconsistent throughout the report.
108. A turn around strategy was recommended. Similar recommendations were provided by TCC21 and included:
- Taking community and village census
- Improving geographic and therapeutic coverage
- Training more CDDS per community and village
- Encouraging selection and training of women CDDs
- Concentrating on selection and training of more new CDDs
- Improving supervision.

109. The project may need the assistance of APOC to implement the recommendations and improve its performance.

**Cross River state: 7th year report**

110. Geographical coverage for this project is 100%, therapeutic coverage is 75%. Only 3.9% of CDDs are female, but female participation may be improving. CDDs are being retrained, but no new CDDs seem to be trained. Treatment refusals are relatively high (8121 with a UTG of 879000), which is said to be related to the fear of SAEs, and yet no SAEs are being reported. The challenges faced include fund release from State and LGA level, frequent turnover of trained health staff, poor record-keeping and supervision.

111. TCC accepted the report with the following recommendations:
- State and LGAs should release budgeted funds.
- Need to increase the number of CDDs per population
- Encouraging involvement of female CDDs.
- Continuing training of new health staff in CDTI.
- Exploring the best way of utilising resources from various partners for CDTI activities.

112. TCC recommended that a new vehicle be provided for the project and APOC management took immediate follow-up action.

**Ekiti State: 4th year report**

113. APOC funds were temporarily withdrawn in year 4, based on the recommendations of the external evaluators. Funding was resumed, after an advocacy mission, to initiate changes in the project necessary to put its performance back on track.

114. Geographical coverage was 99%, and therapeutic coverage was 75%. Some populations were treated twice, but no explanation was provided. The challenges faced include low involvement of health facility staff in CDTI implementation, inadequate information on target population, low number of CDDs, in particular female CDDs (only 9.4% of CDDs are female and female CDDs are available in only 36% of communities), and the need to continue training, involving and mentoring health workers at LGA and facility level.

115. The report was accepted with the following advice for improving project performance:
- Replace or repair motor cycles.
- Increase number of CDDs per population.
- Promote involvement of female CDDs.
- Focus more on securing state and LGA funds.
• Continue training, involving and mentoring health workers at LGA and facility levels.
• Conduct a population census as the denominator seems not to be known.
• Continue consolidating and improving this year’s achievements.

Enugu States: 7th year report

116. The report was well written, and provided information on planning at all levels, logistic support and difficulties in the release of funds by government. Twenty-five (25) of 29 recommendations of the sustainability evaluation were implemented. Progress has been made on integrating drug delivery into PHC and CDTI training into malaria, guinea worm, leprosy, TB and polio activities. Implementation of CSM and SHM are ongoing.

117. The project recorded a geographical coverage of 100%, and a therapeutic coverage of 84%. 63% of communities had female CDDs. Male to female CDD ratio was 2.4:1.

118. The report was accepted with the following recommendations for improvement of future reports:
   • correctness of data in Table 14 needs to be verified,
   • the reporting year should be clarified (cover page states 7th year while section 2.6 shows 8th year),
   • cost per treatment should be provided.

119. TCC recommended the following for improving project performance:
   • Continue advocacy, sensitisation and mobilization of policy makers to ensure release of sufficient funds.
   • Review timeline and ensure it is realistic.
   • Improve TOT training.
   • Ensure maintenance of equipment in order to support monitoring and supervision.
   • Identify NGOs and CBOs active in the state within and outside the health sector.
   • Ensure scaling up of CSM and SHM in all communities.
   • Complete implementation of the recommendations of the sustainability evaluation.
   • Implement recommendations of TCC 22: 122.1, 122.2, 122.3 and 122.4
   • Identify operational research issues and partners to collaborate with.
   • Identify add-on interventions.

Kano State: 7th year report

1) The project provided a very comprehensive report of Year 7 activities. The project is commended for maintaining 100% geographic coverage and >80% therapeutic coverage for the past several years, and for ensuring successful advocacy resulting in support by the State and LGAs. The project is encouraged to continue carrying out advocacy at the LGA level, and training more CDDs in order to reduce the population: CDD ratio.

120. The report was accepted, with a request for clarification of the following to be sent to APOC Management.
   • Project-related:
     • The project should review the census data used to determine the total population of 600,738. The therapeutic coverage for 2005 was 88%. In principle, only 80-84% of the total population is eligible for treatment. Thus, the total population
may be underestimated. Subsequently, the project’s UTG should be reviewed. For a mature project such as this, the ATO and UTG should be the same.

- The Executive Summary and Challenges indicate that there is a lack of support for CDDs; however, in other places (page 15 and 'Strengths'), it is indicated that the CDDs are happy with “prevailing conditions”, and that they are committed. These statements seem contradictory and require clarification.

- The project should explain what evidence exists to show that the messages regarding CDTI received by women in purdah are incorrect. If there is evidence for this, the project should continue to develop strategies to reach these women directly with CDTI messages.

Report-related:

- The project should address the comments of TCC20 when Year 6 activities were reviewed. The follow-up to TCC recommendations presented in this report is from a previous TCC.

- The figures in Table 5 indicate that 100% of all training objectives were achieved, but on the page prior to the table (page 16), it is stated that “training for various categories of CDTI personnel envisaged for the reporting period couldn’t hold due to the delay in the release of funds”. This is contradictory, and thus the project is asked to clarify.

- It is indicated that the State released its counterpart funds, and that certain expenditures were covered by the State (Table 14), but in Table 13, no funds are indicated as having been released by the State. The project is asked to explain.

- In 2005, an amount of $89,987 was spent for activities, yet only $34,133 was released. The project is asked to explain how more funds were spent than released.

Kebbi State: 5th year report

121. The project achieved 83% therapeutic coverage, which is commendable. The project (team) has responded to TCC 20 recommendations and its management of Mectizan supply. Storage has been described appropriately.

122. The report was accepted with advice to the project to recalculate the UTG, and to address the suggestions for improving project implementation in the next report.

123. Suggestions for improving project implementation

- Conduct capacity building activities, especially training of health providers, retraining/training of CDDs and training of communities on CSM
- Endeavour to increase the participation of women
- Explain why the geographic coverage is 96%. Endeavour to attain 100% geographic coverage
- Implement recommendations of the internal monitoring
- Strengthen supervision and use checklists
- Strengthen resource mobilization and reporting to avoid funding gaps
- Intensify efforts to integrate control activities into PHC
- Project and APOC management should organize 5th year evaluation

Kogi State: 7th year report

124. The project achieved 100% geographical and 73.1% therapeutic coverage (1.235 Million UTG). The number of CDDs per community is inadequate. The project is
facing problems with getting LGA and state funds released. It needs to improve data collection and management.

125. The report was accepted with the following conclusions and recommendations:

- Geographical and therapeutic coverage rates are good.
- There are too few CDDs per community and per population. There is need to assist communities in selecting and training more new CDDs.
- Release of budgeted funds at LGAs and State levels needs improvement.
- There is need to focus on improving data in the project.

**Nassawara state: 6th year report (resubmission)**

126. Project performance was deemed good with 100% geographic coverage and 76.2% therapeutic coverage achieved. The treatment coverage, since 2001/2002, has varied between 83% and 76%.

127. The report was rejected. While the resubmitted report is an improvement over the last submission, the new information provided raises new questions, which must be clarified as per the TCC recommendations below. The response to the questions below should be reviewed by APOC Management.

128. TCC made the following observations and recommendations.

- **Project-related questions:**
  - The UTG is 89% of the total population. Normally, the eligible population is 80-84% of the total population; thus the figure of 89% seems high.
  - Did the NGDO partners really release nearly $600,000 to the project? The data in Table 13 are unclear, and the total seems to be more than $309,114.40.

- **Report-related questions:**
  - Some percentages in Table 5 are miscalculated.
  - The outcomes and feedback given, after supervision, have not been provided.
  - In Table 13, district (LGA) contribution does not match values in the executive summary. The community contribution does not also match values given in the document entitled “Answers to Comments/Queries”.

**Niger state: 6th year report**

129. Geographical coverage was 88% and therapeutic coverage was 77% (UTG 1.3 Million, around 40,000 absentees). Enhancing women's involvement as CDDs remains a great challenge (6/6014). Challenges faced include delayed release of funds or inadequate funds, inadequate supervision of LOCT, lack of political will of policy makers, inadequate institution of CDTI in the border area with Benin.

130. The report was accepted, with the following observations and recommendations:

- Geographic coverage of 88% does not speak well of a 6th year project
- Focus on state and LGAs’ financial contributions.
- Replace and repair project equipment.
- Recruit more new female and male CDDs.
- Improve supervision at all levels.

131. APOC has organized a meeting of cross-border states to help resolve project issues associated with implementing CDTI in border areas.
Nigeria NOTF/HQ: 8th year report

132. The report is well written, comprehensive and informative. Effort at integration is commendable, and should be encouraged. There is concern about post-APOC sustainability of projects as there is evidence of collapse of some projects after withdrawal of APOC and NGDO funds.

133. TCC accepted the report, subject to the responsible officers signing it.

134. Issues identified include, among others:
   - Poor and declining geographic and therapeutic coverage in several projects
   - Inconsistent number of communities and project population, and problem with denominator
   - Poor performance of some projects
   - Poor counterpart funding from government.
   - Very few CDDs in projects in Nigeria, and more project emphasis on retraining of all CDDs, as opposed to the selection and training of new ones

135. TCC recommends that NOCP HQ support projects, address declining coverage rates without delay, and institute CSM and SHM. Efforts to improve counterpart funding of projects are essential, but NOTF and projects should also explore other funding sources like NEEDS, and support fund-raising at state/project level. NOCP should provide the much needed support to projects to enable them achieve post-APOC sustainability.

136. TCC further recommends that the NOCP pushes for the inclusion of onchocerciasis control in curricula of all health staff, including schools of Health Technology; and that the NOCP train all serving health staff to prevent the negative effect of staff transfers.

5.3.2 Angola

Observations across projects in Angola

137. APOC has conducted several missions to Angola, including missions with TCC members, to support the local personnel in dealing with mapping, financial and administrative challenges, CDTI strategy issues, strategy for SAE management and strategy for mobilization of support from local NGDOs. APOC has assisted Angola in project proposal preparation. Altogether, Angola has received the highest number of APOC supportive missions of all APOC countries.

138. APOC invited the Chair of the Angolan NOTF and the national coordinator of the onchocerciasis control programme to the TCC23 meeting. They were unable to attend and so sent Mr. M. Cassechi, supervisor for the Lunda Norte/Lunda Sul CDTI project to present this project and the work at the NOTF office in Angola.

139. Four years after the end of the conflict, Angola still has to struggle with the consequences of the conflict, including a lot of population movement, insufficient infrastructure (roads and health services) and continuous inaccessibility of wide areas for REMO and RAPLOA, due to land mines.

140. The MDP representative asked Mr. Cassechi to emphasize to the National Coordinator that, MDP cannot respond to the request for ivermectin for the Moxico project until the MDP has received responses to the questions MDP has repeatedly sent to the Coordinator to date.
Angola NOTF/HQ: 1st year report

141. This report is a resubmission of a report which had previously been submitted to TCC 21. The report has been rejected again. The revised report needs to provide accurate and consistent information on all CDTI projects in Angola, on the activities of the NOTF coordinator (not only on the activities of individual projects), on how the remaining tablets will be used and on the financial situation of the programme.

Lunda Norte and Lunda Sul: 1st year report

142. The project is implemented in 122 villages out of a total of 766 which represent a geographic coverage of 16%. An overall treatment coverage of 14.8% was achieved with 49,645 persons treated out of a total population of 335,664.

143. Given that this is the first report, it is accepted with recommendations for improvement:
   - The number of villages needs to be verified and consistent throughout the report (currently differs in 4 sections reporting it).
   - The total population should be consistent throughout the report.

144. The Programme Manager clarified that, an additional ivermectin distribution round had taken place, prior to the expiration (7/2006) of 1 million tablets remaining after the distribution. This was covered in the 1st year report.

145. TCC made the following recommendations for improving project performance:
   - Conduct sensitisation closer to the time of ivermectin distribution.
   - Continue training on SAE management, even in areas which did not have high Loa Loa prevalence, because of the high mobility of the population into areas with low Loa Loa prevalence.
   - Translate IEC material into the local language to facilitate sensitisation
   - Increase the number of CDDs, particularly female ones.
   - Implement community self monitoring, given that CDDs and health workers were already trained.

5.3.3 Cameroon

Adamaoua I: 2nd year report

146. This project was approved by APOC in 2004 but ivermectin mass treatment had been initiated in 1999.

147. The APOC project area covers three health districts (Ngaoundere, Tibati, Djohong) with a population density of 10/km², and a population of 293,664 in 439 meso or hyperendemic villages. With 191,666, the UTG is only 65.3% of the total population, which requires explanation by the project.

148. Geographic and therapeutic coverage rates of 100% and 73.1% respectively were achieved, an indication of the steady increase in therapeutic coverage observed since the project was initiated in 2001. There was one SAE case which resulted in death. Information on the amount of loa loa microfilaria is not available.

149. TCC accepted the well-written report and made the following observations concerning project performance:
   - The project should make efforts to increase its therapeutic coverage
• The project should devise and implement a strategy for increasing the number of female CDDs
• The cost per treatment is still very high. The low population density, and the costs associated with SAE management cannot completely explain this cost. The project should reduce its budget.

North Province: 7th year report

150. The project is commended for maintaining excellent therapeutic coverage (>75%) and geographic coverage (100%) for the past several years. A lot of effort has been put in to increase the number of CDDs (including more female CDDs) selected and trained. The project is encouraged to maintain these positive results, and to continue to increase the number of CDDs selected and trained and the proportion of communities having >65% therapeutic coverage. While these aspects of the project could be assessed, others could not because of deficiencies in the report. The project is asked to clarify the points mentioned below in a revised report that is to be submitted to APOC, and subsequently reviewed at TCC24.

151. The report was rejected with the following observations:

• There was no response to comments made by TCC21 on the Year 6 report. The project is asked to address those comments.
• The TCC noted several sections in this report where the information provided was identical (or very nearly so) to that in the Year 6 report. It was thus difficult to assess progress in these areas during Year 7. These sections are listed below. If in fact the information is the same as in Year 6 the project is asked to indicate so.
  • Section 2.2 Advocacy
  • Section 2.3 Sensitisation and mobilization
  • Section 2.4 Community involvement
  • Section 2.9 Supervision
  • Section 3.1 Equipment
  • Section 3.2 Table 14
  • Section 4.3 Integration
  • Section 4.4 Operational Research
  • Section 5 Strengths, weaknesses, challenges, and opportunities
• Some data provided in the Executive Summary (e.g. regarding training, CDDs chosen and trained) are not consistent with data in the body of the report.

South Province: 2nd year report

152. TCC reviewed the technical report of the second year of the South Province CDTI project activities covering all the 5 Health Districts in the meso and hyperendemic areas. The project has 738 communities, with a total population of 260,301 of which 171,688 individuals aged 5 years and above were treated. 100% geographic and 66% therapeutic coverage rates were achieved.

153. The report does not indicate whether the recommendations of TCC have been taken into account. It includes mistakes such as uncompleted tables, uncorrected or undone calculations and repetitions. Missing data are: the number of absentees and refusals, number of tablets ordered and the contributions of Partners.

154. Thirty four (34) SAE cases (among 171,788 treated) were recorded, with none resulting in deaths. TCC commends the project for the increase in therapeutic coverage from
60% in the first year to 66% in the second year, despite the obstacles associated with the co-endemicity of onchocerciasis and loiasis, and the incorrect information being propagated by the media.

155. A total of 892 CDDs were trained, but the number is still insufficient, since the ratio is 1 CDD for 292 persons. On the contrary, the percentage of health workers in the CDTI project area is relatively high (86%).

156. TCC rejected the report for resubmission to APOC Management. TCC requested:
   - that the document be endorsed by all the partners;
   - that future reports be improved, with the understanding that the above concerns will be addressed;
   - the inclusion of a map of onchocerciasis and loiasis in the next report;
   - that the issue of increasing the number of female CDDs be addressed

157. TCC requests that APOC management follows up on the repeated project request for a second vehicle to conduct follow-up of SAE cases.

South West I: 7th year report

158. This report, covering the period of January to December 2005, and previously rejected by TCC22, is being re-submitted. The report now includes the information which was lacking in the previous version and the report is accepted.

South West II: 5th year report

159. This is a resubmission of the 5th year annual technical report. The project area has a total population of 213,988 people of which 155,911 were treated for a therapeutic coverage of 72.9%. Geographic coverage was 98.8% with one village untreated.

160. TCC commends the project for the steady increase in reported coverage over the past three years, and the efforts made to promote integration of other interventions with CDTI.

161. The report was accepted with the following observations:
   - The resubmitted report has improved, was fairly well written and mostly complete, but a few inconsistencies remain. The project staff and NOTF should ensure that a thorough review is done in the future before sending the report to TCC.
   - The project should make an effort to collect and report the financial data more completely so that a cost per treatment can be calculated.
   - The project should verify and provide updated total population and treatment data, considering reports that CDDs withheld data when back incentives were unpaid.

162. Suggestions for improving Project Implementation:
   - TCC agrees with the project that continued advocacy is important, and suggests that the project makes a request to all partners (government, APOC, NGDO) for funds. The project should look for funding for key advocacy activities such as developing an advocacy kit, as funds will likely not be available for the life of the project.

163. The project should look towards refining their advocacy messages and strategy and develop tools that can be used for the years ahead.
   - The ratio of 1 CDD: 267 persons seem inadequate. TCC suggests that the project recruit and double the number of CDDs, with a focus on finding and training more
female CDDs as only 15% of communities currently have female CDDs. This may reduce the workload and increase the satisfaction of CDDs.

164. TCC accepts this report and requests the project to respond to the above suggestions in their next report.

**West Province: 4th year report**

165. The report is well written and follows TCC directives. It could have been improved by additional information on the number of people sensitised at all levels, the results of advocacy activities and household surveys.

166. TCC noted that the project serves as an example for other programmes. CDTI activities are integrated in the Minimum Package of Activities, and in the national essential drugs distribution network.

167. The ratio of number of CDD per persons treated is 1:125, which represents an acceptable workload. The project had difficulties obtaining from Government the required counterpart funding, which was insignificant in 2005.

168. During its first three years, the project increased its therapeutic coverage steadily. Since 2004 however, there has been a decrease, which may be due to lack of motivation of CDDs. Coverage, however, remained above 75%.

169. TCC accepted the report and recommended that the project:
   - continues advocating for the regular release of funds from the Government;
   - encourages communities to contribute financially
   - reduces the number of absentees and refusals
   - solicits from government the back payment of incentives to CDDs
   - harmonizes data between different reports.

**5.3.4 Congo**

**Congo: 5th year report**

170. TCC noted that the report is well written with detailed information and an executive summary that reflects the content of the report. The report shows an increased commitment of Peripheral Authorities such as administrative, community and rebel leaders in mobilizing and sensitising the communities and distributing ivermectin. Similarly, an increasing number of communities are motivating their CDDs.

171. The project increased its therapeutic coverage, especially in Kouilou, where the rate increased from 36.1% in 2004 to 64% in 2005.

172. TCC accepted the report and recommended to the project to:
   - continue advocacy efforts to the administrative and political leaders at all levels
   - train trainers to undertake community self-monitoring
   - continue health education for the increasing involvement of health workers at the front line health facilities in CDTI activities
   - continue sensitisation to avoid rumours in the project area, especially in Brazzaville.

173. TCC requests APOC Management to review the strategic plan, submitted by the project for funding per the Trust Fund, and which is designed to address the high rate of absentees in Brazzaville.
Congo Extension: 2\textsuperscript{nd} year report

174. The project, during the first round of treatment, achieved a respectable, though not satisfactory, therapeutic coverage (62\% overall, 70\% in hyper-endemic areas and 59\% in meso-endemic areas) under the difficult conditions of \textit{Loa loa} co-endemicity and SAEs.

175. The report includes answers to the questions raised by TCC 20. The report is accepted with a request to clarify the exceptionally high cost of treatment (USD 23/treatment).

5.3.5 Tanzania

Morogoro Focus: 3\textsuperscript{rd} year report

176. The project is commended for addressing all the comments of TCC 21.

177. The report was rejected because it is weak in various areas, which makes it impossible to determine the progress made so far. The revised report should address the issues raised below:

- Clarify whether the period under review is the 2nd or the 3rd year.
- Present consistent information in the executive summary and in the main body of the report.
- Review tables 5 and 9, and ensure data contained therein is consistent
- Clarify whether or not training on CSM was held.
- Recalculate the UTG (currently it is about 73\%)
- Clarify which of the two reported figures for geographic coverage – 99.3\% and 100\%- is correct.

178. Suggestions for improving Project implementation:

- Strengthen resource mobilization and reporting (for example, APOC withheld funding in 2005 due to late financial returns)
- Endeavour to meet training targets for health workers and TOTs
- IEC materials should target the misconceptions and myths that interfere with treatment coverage

5.3.6 Ethiopia

Observations across projects in Ethiopia

179. Ethiopia is commended for excellent progress in implementing CDTI in the project areas reviewed during TCC 23. TCC noted that for several of these projects, funds for 2005 from APOC were received very late (i.e. after treatment activities had been completed) or not at all. TCC recommended that open, clear and frequent communication occur between APOC, the Ethiopian NOTF, the local WHO office in Addis Ababa, and the regional level of each project (where financial data on APOC funds from the projects are initially collected and processed) to facilitate reporting and timely release of funds.

180. Financing of health interventions in Ethiopia is integrated (basket funding) down to the Woreda level. This offers a lot of opportunities for implementation of integrated health care, but can generate problems for financial reporting of contributions from different partners by the CDTI projects. Ethiopia is in the process of implementing health
system development plan 3, which has enabled them to put into place the health extension programme.

181. With similar CDD: population ratios, different projects experience different attrition rates. The NOTF may want to consider an operational research proposal to look into the reasons for attrition, and how to address the resulting issues for CDTI implementation.

**Bench Maji: 2nd year report**

182. This project is in its third year. Therapeutic coverage achieved was 83%, with a geographical coverage of 100%. Absenteeism and refusals are high among urban dwellers who consider themselves healthy, and not in need of ivermectin. The project provided information on government contributions on different levels.

183. The report is accepted. Suggestions for improving the report were:
- Provide information on roles of partners
- Correct error in date in the last column of Table 3
- Provide accurate total population
- Provide information on impact of sensitisation and mobilization
- Explain delay in liquidation and utilization of funds

184. The project progressed well. Recommendations for further improvements of project implementation were:
- Select and train more CDDs
- Train all health staff
- Encourage more women to participate in the project
- Agree on treatment period with communities
- Intensify health education

**Illubabor: 3rd year report**

185. This project achieved 100% geographic and 74.9% therapeutic coverage in year 2, in spite of delayed release of APOC funds. CDTI is completely integrated with other health activities.

186. The report was accepted. TCC noted the need to:
- correct the reporting period indicated at the top page of the report to correspond with actual period of work
- explain the drop in the number of villages, and the total population from year 1 to year 2
- correct the UTG
- explain the delay in receiving APOC funds, and clarify the use of same which were said to have been released after the treatment cycle.

187. TCC recommended that the project:
- improve on calculation of tablets needed, so as to avoid having tablets in excess, and expiry risks.
- ensure residual tablets are collected and properly stored, and deducted from the next order.
• make every effort to avoid distributing Mectizan during the farming season to reduce absenteeism.
• improve on health education messages and training on side effects to allay the fear of side effects, and reduce refusals. Made provision for basic drugs for the treatment of minor side effects.
• pay special attention to the next treatment cycle in the Darium district to ensure high therapeutic coverage.
• make financial returns to APOC promptly to avoid delay in release of funds.

**Jimma: 2nd year report**

188. This project already achieved 100% geographic and 83.1% therapeutic coverage in the second year. The majority of health staff in the project area and politicians were trained, and are involved in CDTI. Mectizan ordering, storage and delivery are integrated into the health care system. The number of tablets needed for the treatment cycle in the reporting period was, however, overestimated with 406,692 tablets left over. SHM were held in all communities, and though CSM was not carried out in the classical APOC way, community supervisors were trained to monitor, and did so effectively. Impressive performance was carried out within the health systems and in spite of delayed arrival of APOC funds.

189. TCC commended the impressive achievement of the project in the second year, and encouraged the project to maintain the progress made.

190. The report was accepted.

191. TCC recommended to the project:
• More accurate calculation of the quantity of future Mectizan needs of the project.
• Inclusion of corrected UTG in table 2, and everywhere else in the report.
• The use of community supervisors is commended, but SHM is still recommended for implementation.
• To indicate government contribution which is indeed very significant.
• To make financial returns to APOC promptly to avoid delay in transfer of funds.

192. APOC Management should make arrangements for a mid-term sustainability evaluation of this project.

**Kafa-Shekka: 5th year report**

193. The project increased its therapeutic coverage from 26% in the first year to 78% in the 5th year. Activities related to malaria control, polio immunization and Vitamin A distribution are integrated into CDTI.

194. The report was accepted as well written, except for a few discrepancies identified. The project should make efforts to document the contributions of government at all levels. It is insufficient and not helpful to submit blank tables. When funds were not received from APOC in the year, the NGDO partner increased its contributions to meet the shortfall. This, in itself, makes it necessary to document the contributions of government at all levels, as it will provide lessons on integration. The project is commended for using Table 9 correctly.

195. The following recommendations were made to improve the report:
• Edit report to improve on consistency.
• Clarify disparity in section 1.1 and Table 1, and number of CDDs trained in sections 2.4 and 2.5.
• Provide information on contributions of government since there is a budget line for Oncho (as a component of PHC) as in Tables 12, 13 and 14.
• Provide information on implementation of the sustainability plan.

196. The following recommendations were made to improve programme implementation

- Ensure training of community members on CSM
- Identify operational research issues, and collaborate with the University of Jimma. Possible issues are weaknesses identified i.e. delays in reporting at lower levels, and accounting for funds expended.
- Identify reasons for high turnover of health staff at Woreda and health facility levels and address them.

North Gondar: 3rd year report

197. The report was well written.

198. There has been a progressive increase in therapeutic coverage from 68%, at the inception of CDTI, to 77%. CDTI activities are integrated into PHC and add-on interventions are ongoing.

199. The report was accepted. Recommendations made for improving reporting were:

- Executive summary should include history of treatment.
- General information should include climate and aspects of population.

200. Recommendations to improve Programme Implementation:

- Increase the number of health staff involved in CDTI in project area.
- Retrain FLHF staff to address poor handling of documentation, delays and competence.
- Provide information on logistic support available within the project area.
- Improve participation of women in Quara.
- Undertake operational research into attrition of CDDs to be able to effectively address this issue.
- Improve documentation on government contribution at all levels and use the cost instruments and guidelines
- Implement CSM
- To ensure timely release of funds by APOC, the NOTF should insist on timely accounting of expenditure.

West Wollega: 2nd year report

201. The report was well written, and most of the recommendations of TCC 21 were implemented. The project is commended for the 350% increase in therapeutic coverage from a low 22% to 77% in a year. It is encouraged to consolidate this by utilizing the new health extension package programme, which provides additional FLHF staff.

202. The report was accepted . The following recommendations to improve reporting were suggested:

- Clarify reporting period
- Clarify contradiction in outline of activities and reporting period.
• Clarify conflicting information in Tables 6 and 11.
• Outline contributions of MoH and other partners
• Complete Tables 13 and 14.
• Use cost guide to calculate cost per treatment.

203. Recommendations to improve programme implementation were:
• Review number of tablets ordered to reduce probability of tablets expiring prior to use.
• Ensure use of IEC materials in sensitisation and health education.
• Improve health education of communities
• Improve follow-up of absentees.
• Agree on timing of treatment with community members.
• Utilize health extension package programme to consolidate treatment coverage.
• Implement CSM and SHM.
• Complete Tables 13 and 14.
• Continue advocacy for release of funds for CDTI by government at all levels using Tables 13 and 14.
• Provide information on cost per person treated.

5.3.7 Malawi

Observations across projects in Malawi

204. Malawi is one of the countries worst hit by the exodus of health workers; the consequent high turnover is a challenge faced by the CDTI projects.

205. An operational research proposal on the reasons for CDD attrition has been funded through the Director's initiative.

206. APOC requested that TCC members agree to visit Malawi NOTF towards the end of this year.

Extension districts IV: 6th year report

207. This is the 6th year annual technical report. The project is commended for a well-written report and for continued improvement in project results. The project area has a total population of 938,471 people, of which 778,931 were treated, resulting in a therapeutic coverage of 77.1%, up from 65.8% last year. All health districts achieved a therapeutic coverage above 70% this year. Geographic coverage was 100% for the second year in a row.

208. Suggestions for improving report:
• The project incorrectly stated that there were no TCC recommendations to respond to. However; TCC 21 made recommendations and these, as well as the recommendations of TCC 23, should be responded to in the next report.
• Quantify partner contributions as much as possible.
• Provide a description of the extent to which sustainability plans have been implemented.
209. Suggestions for improving Project Implementation: TCC noted that significant efforts have been made to recruit and train more CDDs, and to simplify the key messages given to communities as evidenced in improved coverage. However,

- TCC requests that the project addresses the important issues identified during supervision, and also proposes solutions to the problems, which might include targeted training to CDDs, on Mectizan management and calculating doses correctly; and to supervisors, on how to do effective supervision.
- The project should continue to update census figures every year.
- The project should start to implement community self-monitoring.
- The project should continue to undertake advocacy meetings (group and individual) at the highest levels, including the Finance Ministry (With high level MOH support).

210. TCC accepted this reports and requested that the project addresses the above suggestions in their next report.

Thyolo and Mwanza: 8th year report

211. TCC accepted the report and requested that the following be addressed in the next report:

- Respond to TCC 21 recommendations
- Provide missing information on
  - Year on timeline (table3)
  - Involvement of traditional/opinion leaders in project
  - Accurate figure for total number of communities in hyper and meso endemic areas
  - Funding by all partners

212. TCC recommends the following actions to improve project implementation:

- Increase number of CDDs
- Train newly recruited CDDs
- Address problem of refusals and absentees

5.3.8 DRC

Observations across projects in DRC

213. TCC noted the high percentage of project reports that were rejected and suggested that APOC Management provides assistance. APOC Management in turn asked TCC members to volunteer to conduct a workshop on report writing for all DRC project coordinators and district medical offers. The workshop could be organized by the NOCP coordinator to take place between November 06 to January 07 or possibly as a piggy-back to the training being conducted by MDP on SAE management and reporting in October. A similar approach has previously been taken successfully in Cameroon.

214. APOC has arranged for a workshop on proposal writing for operational research for the national and project coordinators in DRC.

Equateur Kiri: 1st year report

215. This project achieved in its first year a geographic coverage of 15.9% and a therapeutic coverage of 6.9%, based on phased implementation of the project. If the therapeutic
coverage is recalculated only across the 2/11 zones in which the project was implemented, the therapeutic coverage is 54.4%.

216. Five (5) SAE cases occurred during CDTI implementation, all of which were well managed and are well described in the report.

217. The report is accepted with the following recommendations to the project:
   • Provide more information in the report,
   • Complete all tables in the report template
   • Assess the baseline indicators
   • Increase advocacy with government representatives
   • Work towards effective integration
   • Recruit and train more CDDs.

Katanga South: 1st and 2nd year report

218. This project achieved 68% geographic and 40% therapeutic coverage (project was implemented in only 4/6 health districts in the project area).

219. The report was rejected. A revised report using the most recent report template, and providing the information listed below should be submitted:
   • Activities during the entire reporting period
   • Plan for using the remaining 274,932 tablets before expiration
   • General description of the project: location, geography, health structure, etc.
   • Numbers of meso- and hyper-endemic communities
   • Community responses to sensitisation and mobilisation;
   • Community self monitoring and SHM;
   • Equipment;
   • Monitoring and evaluation;
   • Sustainability, evaluation and plans;
   • Integration.
   • Explain why geographical coverage (68.5%) and therapeutic coverage (39.7%) are low, and provide plan to remedy this.

220. TCC recommended that the project recruit and train as many female CDDs as possible.

Katanga North: 1st year report

221. This project is in an area without loiasis. It achieved 100% geographic coverage and 74% therapeutic coverage.

222. The report was accepted. The coordinator should
   • Provide more information in the report,
   • Scale up advocacy with government representatives
   • Enhance integration of CDTI,
   • Increase recruitment and training of CDDs.

Sankuru: 2nd year report

223. The report was concise and complete. It covered 8 Health Zones out of 10, included in the project area. It was difficult to accurately determine therapeutic coverage as
population figures used were inaccurate. Geographic coverage was close to 100% and therapeutic coverage in the range of 50-60%.

224. TCC identified a number of issues in the report that need to be addressed and requested the project to:

- provide accurate figures on total population living in meso- and hyper-endemic villages and the UTG for all the 10 Health Zones (currently 14) in the project;
- provide information on numbers of meso- and hyper-endemic communities;
- consider REMO results (after validation by the NOCP) in order to extract data from hypo-endemic zones;
- provide a detailed plan of action for the subsequent year (not just a table and a timeframe);
- plan properly in order to avoid overlapping activities (eventually by integrating them);
- clarify what happened to the remaining ivermectin tablets (24% of total tablets received) and 124,000 tablets sent to the General Referral Hospital of Kolé for clinic-based distribution;
- continue mobilizing and sensitising the communities, in order to significantly increase the role of women, in spite of cultural barriers;
- continue to advocate at the NOTF and MOH levels in order to facilitate mobilization of local administrative authorities;
- document SAE cases since parts of the project are possibly located at high-risk areas of oncho-*Loa loa* co-endemicity.
- Revise tables 2, 7, 9, 10; and provide accurate data.

225. The report was rejected, and a revised report is requested to address the recommendations/requests made by TCC 18, as well as the requests above.

**Tshopo: 3rd year report**

226. This project, which has been implemented in 6/15 districts, has achieved quite a good therapeutic coverage (11%), despite the problems posed by *Loa loa* co-endemicity. The management of SAEs is good, and the cost of treatment acceptable.

227. The report was rejected for several reasons:

- the population figures provided are not consistent throughout the report
- therapeutic and geographic coverage should be calculated across the total population and the total number of communities
- the report provided little information on how the project plans to increase/improve advocacy and improve management of tablets.

228. The project should conduct more advocacy, improve the management of ivermectin supply and increase integration.

229. In addition, TCC noted that the *Loa loa* microfilaremia recorded in the patients who developed a SAE were usually <1000 mf/ml, and questioned the quality of preparation/examination of the blood smears. Information is requested from the project on whether the slides are still available for further examination.
Tshuapa: 1st year report

230. This is a Year 1 report from a project in a Loa loa endemic area. Project activities were carried out in only one Health Zone out of the 4 originally planned, and out of the total of 12 in the project area; the reason for this is unknown, and as a result, it is difficult to judge project progress:

- The project’s current UTG is 65% of the total population in the treatment area. The project should consider increasing the UTG to 80-84% of the total population so that it aims to treat all eligible people in the treatment area.
- Since the CDD census carried out in Befa le indicated a total population of 58,316; this figure should be used throughout the report. A figure of 99,757 is presented in various places.
- The project should strive to have a population: CDD ratio of 125: 1 or smaller.

231. The project is encouraged to contact APOC directly to ask about pending equipment.

232. The TCC rejected the report and asked that it be resubmitted for review at the next TCC meeting taking into consideration the following:

- The project should use the most recent version of the annual reporting format.
- The report had no general introduction.
- Future Executive Summaries should provide more text on program activities such as mobilization, training, supervision, etc.
- The project should calculate coverage figures, and provide estimates for the numbers of absentees and refusals in future reports. Coverage (geographic and therapeutic) should be calculated using the total number of communities and the total population in the entire CDTI project area.
- There are several sections in the report that need clarification. They are as follows: Section 2.8 Supervision, Section 4.2 Community Self Monitoring, Section 4.3 Sustainability of Projects, Section 4.4 Integration, and Section 4.5 Operational Research. Moreover, in Table 7, the numbers of each type of equipment in the project’s possession are not given.

Ubangi North: 1st year report

233. This project is in an area that is co-endemic for loiasis, and reports on activities between March 2004 and April 2006 indicated that 9/11 health zones are in CDTI priority areas. The project was implemented in 3 health zones, thus achieving 14.8% geographical coverage (80.2% across the 3 health zones in which it was implemented) and 8.6% therapeutic coverage (42.8% across the 3 health zones). Coverage could be improved through increased sensitisation and mobilisation of the population. Health care personnel and the administrative and political authorities, as well as the villagers are involved in CDTI activities. The ratio of male to female CDDs of 56:1 needs to be improved for the latter.

234. 147 SAE cases occurred, with 2 resulting in deaths. Because of the risk of SAEs, the refusal rate was 13.3%.

235. TCC accepted the report and recommended to the project to

- follow the report template (e.g. endorsements, completed tables, verified calculations)
- intensify sensitisation to minimize rumours and fear about SAEs, by emphasizing that provision has been made for good SAE management
• continue to ensure that sufficient medical equipment and medication is available for SAE management during CDTI, prior to implementation in further health zones.
• try to follow up on the release of funds to the project
• train more female CDDs, since they play an important role in the communities
• increase efforts to convince communities to compensate their CDDs to reduce attrition
• train trainers on CSM so that the communities can start CSM

**DRC NOTF/HQ: 6th year report**

236. The recommendations of TCC 21 have been adequately taken into account.

237. Project implementation has improved, as shown by the increasing therapeutic coverage (now at an average of 31.6%) in all projects other than Tshopo. It is only in the projects Kasai, Ueles and Luabala that therapeutic coverage reached or exceeded 65%. No project, other than Luabala has achieved a 100% geographic coverage.

238. For areas that are co-endemic for onchocerciasis and loiasis, a team for SAE management has been put in place, and the health systems in these health districts have been strengthened, which should permit increasing therapeutic coverage in these areas.

239. The report followed the recommended format, with a concise but informative executive summary. The causes of death in the 2/208 cases of SAEs should have been included in the summary. Information is missing in the report on (1) the number of communities in the meso and hyperendemic zones, respectively, (2) the number of health care workers in the CDTI project areas, (3) number of people who refused, and the number of absentees in the 9 projects who conducted CDTI. Some tables have not been completed.

240. TCC accepted the report, and made the following recommendations:
   • Continue advocacy with government authorities
   • Maintain or even increase the quality of the management of SAEs
   • Continue the sensitisation of communities to compensate their CDDs
   • Take into account the observations on reporting made above.

6 Other matters

6.1 Advocacy

241. The advocacy messages available for onchocerciasis control may need to be reviewed to adequately mobilise policy makers.

242. APOC has organized a workshop for national and project coordinators on resource mobilization which will take place in Ouagadougou from 18 to 22 September 2006. This training course will be repeated next year. It is hoped that this will help national and project coordinators raise funds to support their programmes.

6.2 Operations Research Task Forces in Cameroon, Uganda and Nigeria

243. As part of devolving APOC activities to the countries, APOC proposed that the review of operational research proposals and results be conducted by countries with the
appropriate capacity. Cameroon, Uganda and Nigeria responded positively to the APOC proposal and nominated task force members.

244. The mandate of the task force, as suggested by APOC Management, will include not only onchocerciasis related research, but also research on other diseases. A member of the WR office will be a member of the task force. A task force representative will report once a year on the decisions /funding/results to TCC. Since formation of these task forces has financial implications, APOC cannot implement these task forces without CSA approval, which will be sought at the next CSA meeting.

245. TCC endorsed this APOC initiative and recommended that APOC management
- Define more precisely the terms of reference of the task force
- Ensure that each task force has guidelines for ethical conduct of studies, and for eliminating conflict of interest potentially associated with disbursement of funds by the task force.

6.3 Operational Research

246. National and project coordinators in several countries are discouraged that operational research proposals submitted have been rejected by TCC. APOC is addressing this by organizing workshops on writing operational research proposals - the first will take place in DRC.

247. Some TCC members have volunteered to mentor prospective authors of operational research proposals in their bid to submit such proposals to TCC. They also offered to work with them on improving the proposals that have been sent back by TCC for clarification or other improvements.

248. It was suggested that the poor quality of the research proposals received in the past may be related to the relatively limited amount that can be released for a project. The director explained that the rules could be changed but only after agreement from the CSA and the JAF. This issue will be raised by APOC Management during the next CSA and JAF meetings.

6.4 Project report endorsement prior to TCC review

249. APOC is requested to impress on national and project coordinators the need to have all reports endorsed prior to sending them to APOC. Endorsement is obligatory for the NOTF coordinator.

6.5 Farewell to the parting Chair Dr. Braide

250. Dr. Amazigo thanked Dr. Braide for her years of commitment to the TCC as a member, her leadership as TCC chair and her contributions as participant in many missions to the countries. APOC will continue to count on her as a member of the impact assessment task force, and will call on her expertise in the future in other contexts as well. Dr. Amazigo recalled that UNESCO has rated OCP/APOC as being among the most successful public health programmes ever. Dr. Amazigo called on TCC members to support APOC as it faces new challenges in the future, in particular maintaining and extending achievements in the face of decreasing financial resources. Dr. Amazigo asked TCC members to be advocates for CDTI with governments and donors and to be ambassadors for APOC to other programmes on which they serve as advisors.
251. Dr. Braide thanked all present and past TCC members for their contributions to APOC, and for the support they gave her personally, during her first years on the TCC, and in particular during her years of chairing the TCC. Her years on the TCC, she said, gave her a different type and depth of knowledge of onchocerciasis and its control, and insights into the common and different problems the African countries face. She emphasized that she regarded community-based interventions as critical for the future of public health and economic development in Africa.

6.6 Date and place of TCC 24 and TCC 25

252. The 24th and 25th session of the TCC meetings will take place, respectively, on 12-16 March 2007 and 10-14 September, in Ouagadougou.
8 Annexes

8.1 List of participants

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27. M. Marcel Uaiba Cassechi, Superviseur Projet TIDC Lunda Norte/Lunda Sul, s/c Coordonnateur National du Programme de lutte contre l’onchocercose, C.P. 3243, Luanda, Angola
8.2 Conclusions and Recommendations of the 28th session of the NGDO coordination group for Onchocerciasis Control

The 28th session of the NGDO Coordination Group for Onchocerciasis Control was held jointly for the first time with the NGDO Network for Lymphatic Filariasis at WHO Headquarters in Geneva Switzerland on 5-8 September 2006. It was attended by representatives from the NGDO Group for Onchocerciasis Control, the LF NGDO Network, WHO, Liverpool LF Support Centre, GlaxoSmithKline, and Merck & Co., Inc. A representative from WAHO and a PhD student from Princeton University, USA, also attended the meeting as observers. Representatives from LEPRa, Reggio Terzo Mondo, and Physicians for Peace were unable to attend the meeting.

Onchocerciasis Control

The Group reviewed the draft APOC Strategic Plan 2007-2015 and the report on the Strategic Overview of the Future of onchocerciasis control in Africa. NGDOs re-stated their commitment to maintaining support to the extension of APOC to 2015 in order to maintain surveillance and enable the extension into areas not yet reached. They recognized the importance of having one pan-African regional onchocerciasis programme that also addresses the outstanding problems in the former-OCP countries and cross-border issues. However, financing of the extension remains unclear and greater financial commitment is needed from participating Governments to ensure sustainability. In addition, there is a need to review treatment and monitoring criteria used both in APOC and former-OCP countries as they are currently different.

From the data presented, the NGDO Coordination Group noted with concern that total treatments in Nigeria had been decreasing since the withdrawal of APOC funding and requested TCC to review this issue and identify a mechanism to address this. The UNICEF-supported projects account for a UTG of 10.5 million treatments, which is nearly half of the treatments in Nigeria, and more than a quarter of all NGDO-supported treatment in APOC countries. This is causing increasing concern to the Group and needs to be drawn to the attention of the NOCP.

The NGDO Coordination Group noted that there had been delays in APOC funding in Sudan (West Equatoria and East Bahr El-Ghazal CDTI projects) Tanzania (Morogoro rural CDTI project) and Cameroon (West Province) which resulted in delayed treatment activities and requested APOC Management to investigate this issue.

The NGDO Coordination Group thanked Dr Grace Fobi for the information on SIZ operations. However, the Group expressed concern about epidemiological findings in some areas despite prolonged treatment and requested that SAC and APOC Management address this in the context of the expanded pan-African programme.

Support to the national onchocerciasis team in Ghana is required to ensure full treatment coverage in the country (in SIZ and non-SIZ areas). SSI expressed its intent to continue advocacy with both the Ministry of Health and the Ghana Health Service in consultation with the SIZ management. SSI will work with the national onchocerciasis team to ensure full dissemination of treatment reports.
The NGDO Coordination Group noted that the recent epidemiological data for Côte d'Ivoire is only available for the southern part of the country. There is a need to obtain data from the whole country and HKI offered to support this process in consultation with West African Health Organization and APOC.

The NGDO Coordination Group recognized the potential role of WAHO, the official health agency of Economic Community of West African States, in the coordination and advocacy for onchocerciasis control in West Africa. The Group recommended that WAHO and APOC work more closely together.

Following the substantial increase in travel costs over the past five years and the anticipated increased scope of travel, the NGDO Coordination Group requested that the travel budget of the NGDO Group Responsible Officer be increased by APOC Management.

The NGDO Coordination Group accepted the request of CSSW to become a new member, in principle, pending additional information. The Chair will contact CSSW and the Group hopes to welcome them to the next meeting.

Joint session LF Elimination and Onchocerciasis Control

Participants appreciated the strong commitment expressed by WHO for a more comprehensive approach to control of neglected tropical diseases and noted the progress made in developing guidelines for preventive chemotherapy.

USAID Grant for NTDs: Participants appreciated the update on the USAID Request for Applications for NTDs. As part of this proposal, which is expected to be awarded to RTI, a technical oversight board will be appointed to oversee allocation of funding. Participants recommended that NGDOs, with considerable experience in supporting onchocerciasis, LF and trachoma programmes, request representation on this committee to foster communication and coordination of efforts.

Chair and Vice-Chair of the NGDO Group

A working group was elected to draft the TOR for the Chair and Vice-Chair for discussion at the next meeting. The Group elected Dr Danny Haddad as Vice-Chair of the Group, to assume the Chairmanship for a 2-year term after the March 2007 meeting. Mr Simon Bush was elected as Vice-Chair.

Next joint meeting

The next meeting will be a joint meeting of the LF NGDO Network, the NGDO Group for Onchocerciasis Control. The International Coalition for Trachoma will also be invited. Participants expressed their appreciation of Lions offer to host the meeting at the LCIF Headquarters, USA, during the week of 5-9 March 2007.

8.3 Implementation of TCC 22 recommendations and suggestions

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<thead>
<tr>
<th>RECOMMENDATIONS</th>
<th>FOLLOW-UP ACTIONS</th>
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<tbody>
<tr>
<td>12. TCC requested that the frequency of SAEs be presented separately for <em>Loa loa</em> endemic areas.</td>
<td>EVE unit has compiled the data which will be presented to TCC23.</td>
</tr>
<tr>
<td>13. TCC stressed that in areas with prevalence of &lt;40% (20-39%), RAPLOA results should be used to determine areas where ivermectin distribution should be conducted. In this regard, TCC suggested that</td>
<td>- The endemicity maps have been updated and will be presented to TCC. These maps will also be put in the Web site of APOC - APOC Management contacted Dr Remme</td>
</tr>
<tr>
<td>14.</td>
<td>TCC suggested that it would be useful to continue to invite district medical officers to TCC meetings to enhance capacity building and sharing of experiences on integration of CDTI.</td>
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<tr>
<td><strong>APOC</strong> should generate an updated onchocerciasis and loiasis endemicity map and make it publicly available.</td>
<td>The supervisor of Lunda Norte Lunda Sul CDTI project in Angola will be present this time but APOC Management will continue inviting district medical officers to TCC meetings.</td>
</tr>
<tr>
<td>15.</td>
<td>To reduce the workload on the APOC financial staff, it was suggested the analysis of the financial returns from projects be devolved to the WR's office in the countries. APOC Management was in the process of discussing with the WHO country offices to determine how some activities could be devolved to the countries as recommended by the 2005 APOC External Evaluation Team.</td>
</tr>
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<td><strong>APOC</strong> financial staff, it was suggested the analysis of the financial returns from projects be devolved to the WR's office in the countries. APOC Management was in the process of discussing with the WHO country offices to determine how some activities could be devolved to the countries as recommended by the 2005 APOC External Evaluation Team.</td>
<td>- Some AAF/APOC and a AO/WCO participated in discussions in Ouagadougou; - Decentralization guidelines in preparation; - WRs sensitised by DIR during RPM/AFRO; - Correspondences to WR/Nigeria, Cameroon and Uganda are also being prepared</td>
</tr>
<tr>
<td>16.</td>
<td>TCC suggested that clear guidelines be given as to how remaining APOC funds of projects approaching their 8th year of APOC funding should be managed by the projects. APOC Management agreed to review the issue further internally and to take stock of such projects.</td>
</tr>
<tr>
<td><strong>APOC</strong> recommended that larviciding should continue in 2006 in the Mpamba Nkusi Focus in the reinvaded areas of the rivers Mpamba, Rwabutuji and Nkusi where the vector breeds.</td>
<td>- List of projects in their 7th and 8th years is available. - Reflections are on-going on the principle to be put in place for safe management of the situation</td>
</tr>
<tr>
<td>17.</td>
<td>It was suggested that to avoid the repeated miscalculation of coverage due to the misunderstanding of ATO and UTG, it might be easier to advise projects to use only total population and UTG in their reporting.</td>
</tr>
<tr>
<td><strong>APOC</strong> Management agreed to review the issue further internally and to take stock of such projects.</td>
<td>- Advantage is taken of missions to explain the calculation to NOTFs/projects staff; - Advantage will be taken of a forum of national coordinators to inform the countries. – In the coming version of annual technical report being prepared by TCC members, we suggest to delete ATO.</td>
</tr>
<tr>
<td>18.</td>
<td>TCC recommended that larviciding should continue in 2006 in the Mpamba Nkusi Focus in the reinvaded areas of the rivers Mpamba, Rwabutuji and Nkusi where the vector breeds.</td>
</tr>
<tr>
<td><strong>APOC</strong> Management agreed to review the issue further internally and to take stock of such projects.</td>
<td>Arrangements have been made for larviciding to continue in the Mpamba Nkusi focus</td>
</tr>
<tr>
<td>19.</td>
<td>Based on the results of the feasibility study, TCC recommended that the study on compliance to, and perceived benefits of, annual ivermectin treatment should proceed.</td>
</tr>
<tr>
<td><strong>APOC</strong> Management in contact with TDR (Dr Remme) for the implementation of this recommendation.</td>
<td>Process on-going</td>
</tr>
<tr>
<td>20.</td>
<td>TCC recommended that APOC should commission a comprehensive epidemiological study on Nodding disease in South Sudan, to complement available data and to verify and further characterize the epidemic outbreak. TCC should also form a subgroup that develops operational research proposal for looking into the broader issues relating to APOC should generate an updated onchocerciasis and loiasis endemicity map and make it publicly available.</td>
</tr>
</tbody>
</table>
Nodding disease, Nakalanga, epilepsy and association with onchocerciasis and ivermectin treatment.

| 21. TCC recommended that the computer programme for data management developed for Chad should eventually be made available to all other countries as well | Process on-going. Programme already installed in Burundi, Congo, Kasai in DRC and in Nigeria |
| 22. TCC recommended that the issue of project leadership in the South-West I CDTI project should be brought to the attention of the various partners. | Messages have been sent to the NOTF / Cameroon to find out what action has been taken. Follow up to continue. |
| 23. TCC recommended that a high level advocacy mission, comprising representatives of the TCC, APOC management, the NGDO Coordination Group and the World Bank, be sent to Liberia as soon as possible to help reconcile differences among partners, and to assist in the development of a plan of action. | APOC Management, NGDO and members of NOTF/Nigeria sent to Liberia addressed the issue. The new NOTF chair needs to be briefed / sensitised. |

### 8.4 Conclusions and recommendations of the workshop on vector elimination certification criteria in APOC countries


#### I. GENERAL INFORMATION

Prior to the deliberations of the meeting, members of the group had to define the notion of onchocerciasis vector elimination. The group based its definition on that mentioned in the report of the review meeting on onchocerciasis vector elimination projects under the APOC Programme, which was held in Ouagadougou from 6 to 10 May 2002. The group defined elimination as the complete and lasting disappearance of blackfly vector populations from a well-defined focus that offers an optimum guarantee of isolation.

The group revisited the elimination certification criteria, particularly on the lapse of time between the end of larviciding and the affirmation of vector elimination. It maintained this lapse at three consecutive years of total absence of the vector in all its forms. This period must be marked by the strengthening of the evaluation network of adult and pre-imaginal stages. The three-year lapse of time is a compromise between the sum of the various scientific field observations, and the logistic and financial constraints.

#### RECOMMENDATIONS

- For foci in which vectors are no longer found, the group recommends that, for these 3 years, APOC Management give adequate logistic and financial assistance to the enhanced entomological surveillance programme.
- To refine the duration of the observation period, and the isolation status of the focus, the group recommends the speedy conduct of a modeling study to be taken care of jointly by a mathematician and a medical entomological blackfly specialist.
II. TUKUYU FOCUS
Though the series of insecticide treatment undertaken from July to September 2005 were not completed, and that the standard post-treatment evaluation was not done, the presence of anthropophilic blackflies seems to have been reported, at least on River Lumbira, and larvae were also collected in the Tukuyu focus after this period. However, the issue of the specific identity of biting blackflies that are currently found in the focus is once again raised, due to the partial results of cytogenetic and molecular identifications that could suggest that, the S. thyolense might have been replaced in the main focus by non-anthropophilic species. In which case, one could talk of achieving vector elimination, at least in this main focus.

In the event of confirmation of the current presence of the S. thyolense in the focus, a replacement solution could be a vector control programme. This activity is outside the mandate of APOC. Nevertheless, APOC could give technical assistance for drawing up a future national plan of action.

RECOMMENDATIONS
• To clear doubts about the isolation and extent of the focus, the meeting recommends that a complete blackfly (larvae and adults) collection operation be conducted as soon as possible in the entire focus by the NOTF of Tanzania, followed by their morphologic, cytogenetic and/or molecular identification.
• The group recommends that APOC Management bear the cost of these catching and identification operations. This is critical for the vector elimination certification in the Tukuyu focus.

III. BIOKO FOCUS
Since the end of the last treatment campaign (17 May 2005), no larvae and/or adults of the S. yahense Bioko form have been found on the island, despite intensive entomological surveillance. The group expressed its satisfaction for these excellent results obtained with respect to the S. damnosum complex. In conformity with the definition adopted by the group, the absence of the S. damnosum s.l. must be confirmed for two more consecutive years (until end of 2008.)

RECOMMENDATIONS
• To overcome the risk of drop in motivation of vector collectors, due to the absence of anthropophilic blackflies, the group recommends that APOC maintain, until the end of 2008, its assistance to the current surveillance network, and enhance the supervision of catches by sending specialised external teams, familiar with the island, during periods of maximal productivity of the breeding sites.
• Besides, the group recommends that an investigation be undertaken here and now on the possible sources and modes of re-infestation of the focus by blackfly populations coming from the continent (aided by planes, boats, dominant winds, etc.).
• In the event of reappearance of blackflies (larvae or adults) in the Bioko focus, APOC Management must be immediately informed, so that an appropriate response plan could be put in place as a matter of urgency, in collaboration with the NOTF.
• The group recommends that a last impact assessment of insecticide treatments on the aquatic fauna be undertaken in the Bioko focus to ensure that the non-target fauna has not suffered any irreversible harm.
IV. ITWARA FOCUS
The group noted that, since 1997 i.e. 9 years after the cessation of larviciding, no larva and/or adult of the *S neavei* has been caught in the main Itwara focus, despite regular entomological evaluation (catching of biting females and trapping of crabs). The conditions decided on by the group for certifying elimination are met in this focus. The group was highly satisfied with the excellent results obtained.

With regard to the sub-foci of Siisa and Aswa, the results indicated that the vector has been absent everywhere for at least two years, after the cessation of larviciding.

**RECOMMENDATIONS**
The group recommends the final cessation of surveillance in the main focus. The group recommends that there be an additional round of catches and crab trapping in the sub-foci of Siisa and Aswa, on the basis of the 2006 budget already allocated by APOC Management. In case larvae of the *S. neavei* are discovered, localized larviciding must immediately be undertaken.

V. MPAMBA NKUSI FOCUS
The group notes the persistence of the *S. neavei* in the focus during the 2004 and 2005 campaigns. The vector has, therefore, not been eliminated.

**RECOMMENDATIONS**
The group recommends that during the 2006 campaign, which APOC has already financed, special effort be made to identify and treat any source of persistence of the vector in the focus. Entomological surveillance (*Simulium* larvae and biting blackflies) must be maintained. At the end of 2006, the situation must be assessed.

VI. ENHANCING DATA VALUE
The group underscores the need to make the outcome of these long original studies known, not only to the scientific community, but also to the authorities and citizens of the countries of treated foci. To this end, the meeting recommends:

- the publication of results, once certification has been established, per the press, and/or in workshops in the countries concerned for the information of the population and local authorities;
- the drafting of a detailed technical report for each of the foci, mentioning all actions undertaken;
- the insertion of scientific articles in international reviews, particularly for foci in which the objective of vector elimination has been achieved;
- measures to be taken by APOC Management to identify coordinators of technical reporting and publications;
- the establishment, as early as possible by APOC Management, of a timetable for implementing these activities of data value enhancement.
8.5 Results of the study on long-term impact of APOC activities

The objectives, assumptions, and methods used as part of evaluation study of the long-term impact of APOC activities have been recalled to the TCC. The clinical, entomological and sociological results obtained at the two phases of the study have been presented by M. Boussinesq, S. Traoré et E. Braide, respectively.

Clinical (ophthalmological and dermatological) results

A specific workshop organized in July 2006 allowed the members of the study team to analyse the data collected, and particularly to calculate and compare age- and sex-adjusted prevalences of the various onchocercal lesions. These data have been presented, under the form of a series of figures, to the TCC. These results are summarized in Tables 1 (ophthalmological results) and 2 (results regarding skin lesions). These tables show whether the prevalences increased significantly (with information on the P value), remained stable (no significant change between phases) or decreased between the two phases.

The results have been interpreted in the light of (a) number of treatments administered in the various sites within the five-year interval (1-2 versus 5-6 treatments), the therapeutic coverage as assessed from a specific survey using cluster sampling methods, and the interval of time between the last treatment and the second medical survey.

Table 1 and figure 1 show that the visual status either improved, or did not change significantly, between the two phases, with no site showing a worsening of the indicators. Globally, a trend was observed towards a decrease in the prevalences of the onchocercal ocular lesions. When one restricts the analysis to those 7 sites where regular treatments were administered, it was noted that only one site showed an increase in the prevalence of microfilariae in the cornea, and another an increase in the prevalence of microfilariae in the anterior chamber. Regarding the blinding lesions, two site treated regularly showed a decrease in the prevalence of iridocyclitis (versus only one showing an increase), three sites showed an decrease in the prevalence of early chorioretinitis (versus one showing an increase), and one site showed a decrease in the prevalence of advanced chorioretinitis (versus two showing an increase). In addition, two and one site showed respectively a significant decrease in the prevalence of sclerozing keratitis, and of early optic nerve disease (with no site showing an increase). These results show that globally the prevalence of onchocercal ocular lesions tend to decrease, and that this phenomenon occurs both for early and advanced lesions.

Similarly, most of the sites showed either a decrease or no significant change in the prevalence of the various skin lesions. When restricting the analyses to those sites treated regularly, only one site showed an increase in the prevalence of chronic papular onchodermatitis, one an increase in the prevalence of lichenified onchodermatitis, and one an increase in the prevalence of reactive skin lesions.

The TCC recommended that further detailed analyses would be conducted to clarify the relationships between the changes observed in the prevalences and the therapeutic coverages in the various sites. Information on the therapeutic coverages reached at each of the five treatment rounds, as assessed by the TIDC projects, will be used to do so.
Table 1. Changes in the prevalences of ophthalmological lesions between phase 1 and phase 2.

<table>
<thead>
<tr>
<th>P value of test</th>
<th>Significant INCREASE in prevalence</th>
<th>NO CHANGE in prevalence</th>
<th>Significant DECREASE in prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 0.001</td>
<td>&lt; 0.01</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td><strong>Blindness</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
<td></td>
</tr>
<tr>
<td><strong>B + SVI + MVI</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
<td>□■</td>
</tr>
<tr>
<td><strong>DMFC</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
<td>□■■■■■</td>
</tr>
<tr>
<td><strong>MFAC</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
<td>□■■■■■</td>
</tr>
<tr>
<td><strong>PK</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
<td>□■■■■■</td>
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<tr>
<td><strong>SK</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
<td>□■■■■■</td>
</tr>
<tr>
<td><strong>Iridocyclitis</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
<td>□■■■■■</td>
</tr>
<tr>
<td><strong>Early CR</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
<td>□■■■■■</td>
</tr>
<tr>
<td><strong>Advanced CR</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
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</tr>
<tr>
<td><strong>Early OND</strong></td>
<td>□□■■■■■</td>
<td>□■■■■■</td>
<td>□■■■■■</td>
</tr>
<tr>
<td><strong>Advanced OND</strong></td>
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<td>□■■■■■</td>
</tr>
</tbody>
</table>

Each square represents one site, the white and black squares corresponding to those three sites treated 1-2 times, or those seven treated 5-6 times, respectively. The results concern (a) bilateral visual acuity (blindness or all visual impairments [blindness + severe visual impairment [SVI] + moderate visual impairment [MVI]]; (b) “acute” lesions: dead microfilariae in the cornea (DMFC), microfilariae in the anterior chamber (MFAC), punctuate keratitis (PK); and (c) chronic blinding lesions: sclerocizing keratitis (SK), iridocyclitis, early and advanced chorioretinitis (CR), and early and advanced optic nerve disease (OND).
Table 2. Changes in the prevalences of skin lesions between phase 1 and phase 2. Each square represents one site, the white and black squares corresponding to those three sites treated 1-2 times, or those seven treated 5-6 times, respectively. The results concern acute papular onchoderma (APOD) chronic papular onchoderma (CPOD), lichenified onchoderma (LOD), reactive skin lesions (RSL, i.e. APOD or CPOD or LOD), depigmentation (DPM) and nodules.

<table>
<thead>
<tr>
<th>Lesion</th>
<th>Significant INCREASE in prevalence</th>
<th>No change in prevalence</th>
<th>Significant DECREASE in prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P value of test</td>
<td>&lt; 0.001</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>APOD</td>
<td>□■■■■</td>
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<td>CPOD</td>
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<tr>
<td>LOD</td>
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<tr>
<td>RSL</td>
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<tr>
<td>DPM</td>
<td>□■■■■■</td>
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<tr>
<td>Nodules</td>
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</table>

**Figure 1.** Changes in the prevalence of blindness, of severe visual impairment (SVI) and of moderate visual impairment (MVI) between phases 1 and 2 in the various sites.
8.6 WHO's renewed commitment towards neglected tropical diseases

The attention for tropical diseases has gradually decreased over the last decades, in favour of emerging health threats, non-communicable diseases and violence and injuries. Yet, communicable diseases remain a major burden in low-income countries. In Africa, for example, they still account for 73% of the disease burden and 71% of all deaths. As a group, the tropical diseases account for a substantial part of this burden in the developing world. Recently published burden reassessments for 13 tropical diseases have resulted in a total of 534,000 deaths and 56.6 million DALYs lost annually. If considered together, these 13 neglected tropical diseases would therefore represent the fourth most important group of communicable diseases in humans, after lower respiratory tract infections, HIV/AIDS and diarrhoeal diseases.

There is a general international perception that insufficient control tools are available to deal with tropical diseases and that the emphasis should be on research and development of new tools, in particular new drugs. For some tropical diseases - such as Buruli ulcer, Chagas disease, human African trypanosomiasis and leishmaniasis - which occur mainly in remote areas with a dramatic lack of health facilities, case management is indeed hampered by the lack of simple field applicable control tools and the ensuing low access of affected people to diagnosis and treatment. In the short term, intensified disease management by specialized teams using existing tools and drugs is vital to reduce the disease burden. Elimination of these diseases as public health problems is therefore possible, but may not be sustainable as long as control strategies cannot be more easily handled by the primary health care system. New, more cost-effective control tools such as simple diagnostics and safe, oral drugs need to be developed to this effect. These unmet control needs required by the field should strategically drive the research agenda and promising products should move quickly to the stage of field application.

But there is also a group of tropical diseases - mainly helminth infections - for which excellent control tools are available under the form of effective, safe, single dose drugs. When given periodically, these drugs lower the parasite load and enable people to avoid the negative effects of (heavy) infection. In some instances these drugs also have a substantial impact on transmission, which may lead to elimination in some settings. In fact, the coordinated use of a few anthelminthic drugs (ivermectin or diethylcarbamazine, albendazole and/or mebendazole, and praziquantel) is able to bring relief for over 15 types of helminthic and parasitic infections, including lymphatic filariasis, onchocerciasis, schistosomiasis and soil-transmitted helminthiasis, cestodes, foodborne trematodes, strongyloidiasis and ectoparasitic infections (such as scabies and lice). This could further be combined with azithromycin, an antibiotic that can also periodically be given in a single dose to avoid blinding trachoma. Some of these drugs - ivermectin for onchocerciasis and lymphatic filariasis, albendazole for lymphatic filariasis, and azithromycin - are donated on a large scale by the pharmaceutical industry and therefore widely accessible.

As polyparasitism is the rule rather than the exception in the field, WHO promotes the use of the available anthelminthic drugs – either alone or in combination – as a public health tool for preventing morbidity due to infection with more than one helminth at a time. Since many of these drugs are broad-spectrum, allowing several diseases to be tackled simultaneously, such preventive chemotherapy interventions should be conceived as drug-based rather than disease-based: emphasis should be on the best, coordinated use of the available drugs rather than on specific forms of helminthiasis. The greatest challenge is to extend regular anthelminthic drug coverage and eventually provide universal access to this public health intervention for all individuals at risk of the morbidity caused by helminthic diseases. Preventive chemotherapy should therefore begin early in life, and every opportunity should be taken to reach at-risk populations.
A recent WHO manual, "Preventive chemotherapy in human helminthiasis: coordinated use of anthelminthic drugs in control interventions" advocates much greater coordination among disease control interventions than have hitherto been seen as specific – and therefore implemented separately. The core part of this manual is a series of algorithms through which an optimal treatment package can be determined for each possible combination of diseases in a given setting. Related to each package are also clear instructions on the frequency of implementation, eligible and ineligible population groups, and specific issues that need attention during the implementation.

Regarding recommendations on how to deliver the (drug) package, there are numerous opportunities for co-delivery with other large scale interventions, such as vaccination and/or vitamin A distribution campaigns, bednet distribution campaigns, community directed treatment interventions, house-to-house delivery systems, and others. Opportunities for co-delivery are likely to vary according to continent, country or place. In sub-Saharan Africa, community directed treatment interventions constitute such a region-specific opportunity to expand coverage with preventive chemotherapy in resource-poor settings.

What WHO recommends is that countries adopt preventive chemotherapy as an integral part of their basic public health package. Similar to the principle of immunization, whereby children receive early protection against a set of common infections according to a schedule of vaccinations and booster doses, people can also be protected against a set of common tropical diseases and their severe manifestations through a schedule of systematic treatments that start early in life and continue into adult age, making use of routine systems and services to ensure sustainability.

For the immediate future, emphasis will be on the promotion of the preventive chemotherapy concept with country authorities, and the identification of optimal drug delivery strategies tailored to the different regional and local contexts. In order to further enhance a multi-disease approach, WHO is also preparing a second manual that will be focused on integrated monitoring and evaluation of preventive chemotherapy interventions. A potential bottleneck in the scaling up of preventive chemotherapy is the access to sufficient quantities of quality non-donated anthelminthic drugs such as praziquantel and diethylcarbamazine. The global production of these drugs is currently tailored to the (limited) market, and the market is unable to rapidly expand because of this limited production capacity. One of WHO's potential roles will be to break this vicious circle and "guide" a progressive scaling up of both market and global generic drug production.

The fight against tropical diseases should be an integral part of the public health agenda in endemic countries and aim for the provision of global access to the best available health interventions, particularly for poor people who are disproportionately affected by these diseases. Preventive chemotherapy is one of such interventions which is inexpensive, relatively easy to implement and likely to greatly improve the well-being and socio-economic prospects of poor people in the developing world.

8.7 A guide for integrated control of Neglected Tropical Diseases using wide-scale chemotherapy: Approaches to implementation

The African Region of WHO is endemic for several tropical diseases, which are imposing heavy morbidity, mortality and hindering socio-economic development of the Region. These diseases include malaria, Lymphatic Filariasis, Onchocerciasis, Schistosomiasis and STH, Human African Trypanosomiasis, Guinea worm, Trachoma, Leishmaniasis among others. In some areas two or more of these diseases are syndemic. The most afflicted populations are poor rural communities, with underdeveloped infrastructure and health services. In an attempt to control and or eliminate these neglected diseases, national programmes, most of them vertical
and employing various strategies and approaches, have been set up. These programmes under Ministries of Health, are often donor supported at the beginning and in most cases utilize the same personnel and target the same communities. It has become increasingly difficult to maintain these vertical programmes especially in view of dwindling resources and competition with high profile priority diseases. It has therefore been proposed that integration of programmes at various levels could serve as a panacea.

Integration is a relatively old concept which has been extensively discussed the last few years but its implementation on a large scale is yet to be effected. Although there are some integrated activities going on in some Member States of the Region, these are often informal arrangements between programmes and their impact is difficult to assess. Integration has many advantages, amongst which are encouraging collaboration between vertical programmes, integrated implementation at lower levels, rational and efficient use of human and financial resources, savings on time of implementers and beneficiaries, synergistic impact on neglected diseases where these are co endemic, and strengthening of health services delivery systems. Despite these obvious benefits, adoption of integration by the Region has been generally poor because of lack of guidelines to be followed by countries wishing to adopt this policy. This document is meant to overcome this obstacle.

While considering integration of programmes, it is important to identify entry points or platforms for integration. These entry points could be existing programmes or approaches within existing programmes. For example interventions designed to target maternal and childhood illnesses under Expanded Programmes of Immunisation (EPI) such as NIDS strategy, Child Health Days strategy, School Health approach), could be entry points for integration. All Member States of the Region are implementing one or more of these approaches. Another group are programmes involving mass drug administration through Community Directed Treatment (ComDT) such as in onchocerciasis, Trachoma, Schistosomiasis, lymphatic Filariasis. The guidelines presented here have analysed these approaches and strategies and examined and discussed their merits as entry points. Such analysis is a prerequisite for integration so that all options available for integration are exhausted.

There are many opportunities offered by integration and these should be critically analysed for advocacy especially within the African Region. At the same time there are challenges faced by an integrated approach to disease control. It is equally important to consider factors that influence decisions on what to integrate and what not to integrate, for example co endemicity of parasitic diseases, knowledge about safety of drug combinations, resources available to programmes, the level of social development of communities being dealt with and drug delivery strategies to be used. The inputs that are required to initiate and successfully implement integration are also examined in this document. The identification of constraints and their solutions is also an important preparatory stage in the integration process. Thereafter, steps towards achieving integration of programmes need to be developed by individual countries. These steps could range from advocacy at international and national levels, situational analysis of neglected diseases in the country, macro- and micro- planning and consultations at various levels, resource mobilization, capacity building and any other activities leading to the implementation and monitoring of integration. It is also necessary to identify parameters for monitoring and evaluation such as process, output and impact indicators to be used by programmes involved. As way forward, some recommendations have been made towards the achievement of integrated delivery of health services.