An External Evaluation:
The African Technology Policy Studies Network

Main Technical Report

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Acronyms

ABSF	African Biotechnology Stakeholders Forum
ACTS	African Centre for Technology Studies
AERC	African Economic Research Consortium
AIDS	Acquired Immune Deficiency Syndrome
ATPS	African Technology Policy Studies
AU	Africa Union
AWSTF	African Women in Science and Technology Forum
AYFST	African Youth Forum on Science and Technology
CBA	Cost Benefit Analysis
CD-ROM	Compact Disc Read-Only Memory
CHSRF	Canadian Health Services Research Foundation
COMESA	Common Market for Eastern and Southern Africa
CSIR	Council for Scientific and Industrial Research (Ghana)
CTA	Technical Center for Agriculture and Rural Development (Netherlands)
CV	Curriculum Vitae
DAC	Development Assistance Committee
DGIS	Directorate-General for International Cooperation (Netherlands)
EATPS	Eastern Africa Technology Policy Studies
ED	Executive Director
EU	European Union
ERNWACA	Educational Research Network in West and Central Africa
HIV	Human Immunodeficiency Virus
ICT	Information and Communication Technology
ICTSD	International Centre for Trade and Sustainable Development
IDRC	International Development Research Centre
IERI	Institute for Economic Research on Innovation
IFPRI	International Food Policy Research Institute
Infodev	Information for Development Program
IPS	Innovation, Policy and Science
ISP	Internet Service Provider
ITS	Innovation, Technology and Society
KIST	Kigali Institute of Science and Technology
MAXFACTA	Maximizing Facts on HIV/AIDS Youth Group
NCST	National Council for Science and Technology (Uganda)
NEPAD	New Partnership for Africa's Development
NIS	National Systems of Innovation
NISER	Nigeria Institute of Social and Economic Research
NSTC	National Science and Technology Council (Zambia)
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
PAD	Project Approval Document
PRSP	Poverty Reduction Strategy Papers
S&T	Science and Technology
SciDev	Science and Development Network

Sida/SAREC	Department for Research Co-operation (SAREC), within the Swedish International Development Agency (Sida)
STEPRI	Science and Technology Policy Research Institute (Ghana)
STI	Science, Technology, and Innovation
STP	Science and Technology Policy
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TPW	Technology Policy Workshops
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNU-INTECH	United Nations University – Institute for New Technologies
UNU-MERIT	United Nations University – Maastricht Economic and Social Research and Training Centre on Innovation and Technology
USAID	United States Agency for International Development
WATPS	Western Africa Technology Policy Studies
WTO	World Trade Organization
YADSTI	Youth Agency for Development of Science, Technology and Innovation

Section 1. Background and Purpose

1.1 Context

1. The African Technology Policy Studies (ATPS) network has a long history both with and within the International Development Research Centre (IDRC).[1] The seeds of ATPS were first planted in the early 1980s as a result of an IDRC-supported Technology Policy Workshop series organized in three countries in Africa. These workshops were followed by the establishment of two regional networks — one for Eastern Africa (EATPS) and another for Western Africa (WATPS). These networks provided competitive research grants, together with mechanisms to strengthen capacity for research and to link researchers to each other and to policymakers in the area of science, technology, and innovation (STI) policy. The two regional networks were brought together in 1994 into a single network (ATPS), which was located within IDRC as a semi-independent Secretariat. In 2001, ATPS became an independent institution. Since 1994, ATPS has received financial support from IDRC[2] (and from other donors) and has maintained a close relationship with IDRC.

2. Ongoing discussions between ATPS and IDRC on the need to organize a formal evaluation of the network led to an agreement in March 2007 to proceed. This was to be an independent, external evaluation that would include an organizational assessment of ATPS. The evaluation was to be funded and managed by IDRC with the participation of ATPS. The agreement to conduct the independent evaluation was made in the context of a number of important changes affecting both ATPS and IDRC. At ATPS there had been changes in the leadership[3] of the Secretariat and a need to articulate a new strategic plan for 2008–2001. IDRC had launched a new program area[4] — Innovation, Policy and Science (IPS) in late 2005, followed by a new "program initiative" (or subprogram) Innovation, Technology and Society (ITS) in June 2006 just as ATPS came to the end of a phase of core funding in June 2006. Although IDRC has supported research on science and technology (S&T) and innovation policy issues since its creation, the new program area was to provide a renewed focus on research in this thematic area of work. The ITS program, in its strategic submissions to the IDRC Board in 2006, stated its intention to build on earlier investments in Africa on STI, together with regional partners such as ATPS and New Partnership for Africa's Development (NEPAD), and to identify strategic gaps in research support to important and emerging issues in the region. The ATPS network was selected as a potential key organization that could contribute to program objectives in Africa. The IDRC program was required to learn from past Centre-supported work in the area of STP in Africa, determine lessons, and develop its strategic framework with key partners to guide future support and directions, over the next 3–5 years.[5]

[1] For more information on ATPS see www.atpsnet.org; for IDRC see www.idrc.ca.
[2] The last grant made by IDRC to ATPS ended in June 2006. Subsequently, ATPS has made three requests for support to IDRC and no new grants have been approved.
[3] The ATPS Network Secretariat has been led by an Executive Director (ED) appointed by the Board. The former ED of ATPS was away on sabbatical leave for 18 months, starting in late 2005, to serve as Senior Economic Advisor to the President of Nigeria. During his absence the Secretariat was headed by the Research Manager, as the Acting ED, with some back up by the ED on leave. The ED rejoined briefly in March 2007 and resigned on 30 June 2007. A new full-time Research Director was appointed in June 2007 to join the Secretariat on 1 September, 2007. He joined with the designation of Director. The Board abolished the ED position and integrated the roles and responsibilities of the ED and Director of Research and Training into the single position of Director. The former Acting ED resigned shortly before the evaluation visit in October 2007. The Board in November 2007 reverted to the earlier title of Executive Director for the Director.
[4] The Innovation, Policy and Science (IPS) program area of IDRC is responsible for programming in the areas of STI policy research; therefore, future support to ATPS devolved to this program.
[5] IDRC Project Approval Document for Evaluation, PAD No. 104316.

1.2 Purpose

3. The general objectives of this evaluation were: to inform IDRC (and possibly other funding partners) on how best to provide future support to ATPS; and to assist ATPS by providing feedback from its stakeholders on its next strategic framework. The primary purpose of the evaluation was for both IDRC and ATPS to determine, for their own needs, the benefits and value of support to ATPS in terms of outputs, reach, outcomes, and possible impacts.

4. From the initial stage, it was recognized that ATPS had an extensive and widely dispersed group of key stakeholders. They included current donors, such as Sida/SAREC, and the Government of the Netherlands, and possibly, earlier supporters such as the Carnegie Corporation of New York and the Rockefeller Foundation. The stakeholders also included policymakers in African governments concerned with research and policy for STI, and, equally important, the national chapter members of the ATPS network, mainly researchers and policymakers, across many countries. At a more diffuse level, potential stakeholders included people with an interest in the issues of STI policy research and development in Africa. The primary audiences for this review were IDRC, which requested and funded the study, and the ATPS network and its chapter members. However, because the expected audience included other important stakeholders, the evaluation sought mechanisms to solicit the views and experiences of a wider community.

5. In preliminary discussions within IDRC, it was determined that, for maximum value, the evaluation should have several components and activities directly related to the ATPS Network, and its constituent parts. In addition, keeping in mind the different stakeholders, it should examine the larger context for research on STI and use of this knowledge.

6. The objectives of the evaluation[6] were:

- To document the results of the ATPS Network in terms of outputs, reach, outcomes, and possible impacts. Thereby to assess the overall impact of the African Technology Policy Studies (ATPS) Network, including the research contributions of ATPS, capacity building and policy impacts, and other outcomes and influences of ATPS work, with an emphasis on the period 2001–2007 while being cognisant of its historical evolution and previous phases. And, keeping in mind the context and role of donor investments and support, in particular, IDRC.
- To determine the efficiency and effectiveness to which ATPS is meeting the stated objectives and goals; and the strengths and weaknesses of the structures of ATPS including the institutional model, governance, strategies, linkages between the secretariat and national chapters, between activities of research, policy and capacity building; keeping in mind the emerging context in Africa and the countries where it has been most active.
- To draw lessons on the strengths and weaknesses of ATPS in relation to the current state of the demand for the knowledge in this field in Africa, as well as the national and regional structures for researchers. And,
- To assist ATPS and its constituency of stakeholders in the development of new 5-year strategic directions (2007–2012).

7. The IDRC program considered this evaluation to be of importance to its future programming. It was also seen to be relevant to other parts of the Centre and to questions in the Centre about support to

[6] These objectives for the evaluation were developed in Nairobi in consultation with ATPS and agreed to by IDRC. A parallel paper commissioned by IDRC maps some of the key regional challenges in STIP research.

networks and the value of different modes of support. In keeping with principles of donor cooperation, IDRC informed the ATPS donors and sought their active participation in focus groups and at the ATPS annual meeting, where it was anticipated preliminary results would be presented.

1.3 Methodology

8. Based on the terms of reference, the objectives of the IPS program, and discussions with the ATPS Secretariat (undertaken in June and July 2007), it was determined that this evaluation would combine different elements of evaluation approaches and methods. There was an expressed desire for an accountability evaluation together with a large focus on learning[7] and a forward-looking, strategic evaluation. This type of evaluation would help IDRC and ATPS network stakeholders determine key issues for future focus while keeping in mind the context and needs in the countries involved with policy relevant research in STI for their development. Later, the evaluation purpose evolved from a process that emphasized learning to one that emphasized accountability.

9. The preliminary discussions in July[8] included the question of how best to judge or assess the outputs and outcomes of ATPS. Initial and cursory document reviews were conducted in June as a prelude to the first field visit by the lead technical evaluator. The reviews showed that a wide array of documents existed[9] that should allow for the well known "program logic model"[10] to be used because the inputs (all resources that contribute to program activities), all activities of ATPS, and the outputs (products of the activities) could be assembled without great difficulty.

10. Research output is one of the most important measures of outputs for a research supporting network such as ATPS. Although the "numbers" provide a valuable indicator, they must be weighted by the quality, which is much more complicated.[11] The assessment of outcomes is always complex. Although some outcomes were listed in the ATPS documents, it was anticipated that greater efforts would be required to assess outcomes. Assessments of efficiency and effectiveness are similarly complex, and one method is to benchmark against similar organizations.

11. An initial suggestion was to attempt to benchmark ATPS against some other networks of similar character (e.g., the African Economic Research Consortium, AERC), but this did not prove feasible.[12]

[7] Accountability evaluations provide information about performance and results and serve more as a control mechanism. Learning evaluations are expected to provide information that can be transformed into better practice to improve activities and enhance organizational performance (see Sida-Evaluation Manual, 2004, p. 12). Hovland (2007) reviews best practices for evaluating policy research organizations and provides many useful methodological tools.

[8] Undertaken by the lead technical evaluator and recorded in the note prepared and shared with IDRC, ATPS, and donors — Amitav Rath, An Outline for the ATPS Evaluation and Notes from Meetings in Ottawa, Nairobi, Dar es Salaam, and Pretoria, July 2007.

[9] On the ATPS website and in IDRC files.

[10] This uses the most traditional evaluation model that examines inputs, activities, and outputs and leads to outcomes and impacts. Outcomes are often shorter term and impacts refer to longer term results. The logic model takes a simple linear relationship as the base — inputs must be available for activities; activities must be completed to produce any outputs; and these outputs need to be used in some fashion to generate outcomes.

[11] Quality assessments are difficult because there are often disagreements between individual assessors. This leads to quality verification through publications in peer-reviewed journals and citation indices. There are also well-known problems with using these indices for the research outputs of developing countries, as they face a smaller demand and outlet for their research. International indices have the potential of diverting the research from more relevant local problems. All qualitative assessments were used with caution. More careful assessment of all research outputs was considered to be beyond the time and resources available.

[12] Many of the founding and strategy documents that related to ATPS, for example the ATPS Strategy Document 1997, had AERC as a model and often mentioned the goal was to create another network with similar success. Many documents in

However, later it was decided that the outputs would be judged against the goals, plans, activities, outputs, and targets laid out in ATPS documents published between 2000 to 2007 — strategic plans, grant requests, annual reports and other reports such as grant request by ATPS, and approval documents of donor agencies. Some effort was made to assess the progress of the network after its independence in 2001 by making some before and after comparisons.

12. The evaluation design needed to be cognizant of the network structure of ATPS — an independent honorary Board that provides overall guidance; a Secretariat with full time staff as the key instrument for execution of network activities; and many national chapters with coordinators and members. Networks are valuable tools for many objectives and are particularly well-suited to improving research capacity. One important benefit stems from the fact that not all knowledge is codified and that links to context and tacit elements are important. For individual network members, access to financial and knowledge resources, improved career and job opportunities, and access to decision-makers are often the most important benefits. For the network as a whole, some additional important dimensions that indicate the health, activity, and impact of a network include not only the quantifiable collective outputs and outcomes, but the perceptions of network stakeholders. Important qualitative dimensions include connections established and used, trust and reciprocity between members, use of network features, and evolving governance structures to match network needs.

13. Participatory processes that involved stakeholders in the evaluation were included to make the findings more accurate and relevant. In addition, the process was intended to contribute to future strategy development by network members by making the evaluation more meaningful to them through their participation and engagement in the issues and by giving them the opportunity to know the source of the findings.[13] It was recognized that different perceptions and interests of network members would emerge and need to be collectively managed. The three workshops (East, West, and Annual Meeting) were planned to encourage joint understanding and open discussions.

14. The evaluation was designed[14] to include the coordinated set of activities of the ATPS network and to have ATPS members as active partners. The principal mechanisms and activities are outlined below. The participatory,[15] qualitative, learning, and strategic dimensions were sought through: consultations and interviews with key actors and individual stakeholders; country visits; a focus workshop; and a survey aimed at the STP community in Africa. The latter included those involved in ATPS and others not directly involved, but with interests in research and policies for STI. These elements were combined,

IDRC, such as English, Phillip, 1992–1993, Research Networks in Africa, mention AERC and ATPS as having a number of common, and also different, features.

[13] All members of the evaluation team consistently followed a standard ethical procedure. Participants were always told clearly the purpose of the survey, interview, or workshop, how the data were to be collected, and how the data were to be used. In each case, they were given assurance that no personal information would be presented without their consent. All national coordinators were requested to confirm the statements attributed to them and to any additional information about their country. A number of interviewees did not wish to provide their views on record. The views of those who preferred to remain anonymous have been given lower weight, except where they match other verifiable data. All promises and requests were honoured.

[14] The evaluation design was informed by the review by Hovland (2007) and the work by Earl et al. (2001).

[15] There is a wide spectrum of possible participation. Participation was sought first with the Board and the Secretariat in the selection of evaluators and in the focus, design, and tools to be used. Subsequently, it was widened to include the donors and selected coordinators in the design of the survey instrument. Considerable participation was maintained during the country visits and the focus group meeting by allowing both the groups and individuals freedom to discuss any issues. A final group discussion of the draft findings at the ATPS Annual Meeting was cancelled.

through a triangulation process and ongoing reflection and review, to provide the overall assessment, conclusions, and recommendations for the future strategy and direction.[16]

1.4 Process

15. The criteria for, and choice of, the lead technical evaluator was determined by IDRC in agreement with ATPS in March 2007. The curriculum vitae (CV) of the proposed lead technical evaluator was shared with, and agreed to by ATPS.[17] During further discussions between IDRC and ATPS on details of timing, the suggestion was made by ATPS that a preliminary visit by the lead technical evaluator at the end of June 2007 would allow for: initial discussions with all ATPS Board members (at the scheduled Board meeting on 28 June); meetings with the three chief executive officers (past, interim and future);[18] meetings with ATPS staff; and participation in an ATPS workshop in Kampala immediately following the Board meeting. IDRC took steps to issue the contract with the lead evaluator and to make travel arrangements. Soon after, the lead evaluator commenced preliminary discussions with IDRC staff and reviewed a number of IDRC grant documents to prepare for the visit. The first field visit was designed to allow for initial discussions with the core group of ATPS stakeholders, followed by consultations with an initial sample of stakeholders in Kenya, Uganda,[19] Tanzania, and South Africa. The lead evaluator was able to meet with most (7) ATPS Secretariat staff, including the Acting ED/ Research Manager and the newly appointed Director, Research. He was also able to meet with two current Board members and one previous Board member; one member of the ATPS evaluation team of 2002; four participants in ATPS work in Kenya; one national coordinator in Tanzania; and a small sample of STI researchers not involved with ATPS.[20]

16. The objectives of this visit were: to learn more about the range of ATPS activities by type, size, and geographical coverage; to understand the perceptions of the key stakeholders regarding the important issues; and to discuss with them and receive their inputs into the process to be followed. It was determined that for maximum value, the evaluation should have several components and activities. The initial observations from the field visit, together with more detailed plans for the evaluation, were recorded and shared with all the stakeholders including the ATPS Secretariat, Chair of the Board, IDRC, and other donors.

17. Additional team members for the technical evaluation were selected so as to be independent of, and not a direct beneficiary of, previous ATPS support. Given the importance that both ATPS and donors had placed on building the national chapters as key constituent elements of the network, it was also determined that making direct contact with a number of national chapter members and national level stakeholders would be an important task for the evaluation. Because of the regional distribution of ATPS national chapters and ATPS priorities, it was decided that the team should have one person from Eastern

[16] The overall approach was inspired by the processes adopted in the 2006–2007 evaluation of the Canadian Health Services Research Foundation (CHSRF) and was adapted to suit the scale, timelines, and budget of this effort. The CHSRF evaluation combined several distinct elements and volumes, which were then combined by the external evaluators (Hovland, 2007, page 49, and www.chsrf.ca/about/ga_accountability_impact_ol_e.php).

[17] The lead technical evaluator worked at IDRC in Ottawa from 1981 to 1990. He worked in the program of Science and Technology Policy, which initiated the first training workshops in STP that led over two decades into ATPS.

[18] During 2007, three different persons headed the Secretariat and there was little overlap between them (see footnote 3). The evaluators interacted with the Acting ED and the newly appointed Director in July.

[19] Administrative delays prevented participation in the Kampala workshop. This made it impossible to meet with the previous Executive Director or with the ATPS Board as a whole, although several individual meetings were possible.

[20] The people met are named in the initial report, which was shared with ATPS and stakeholders. Rath, Amitav, An Outline for the ATPS Evaluation and Notes from Meetings in Ottawa, Nairobi, Dar es Salaam, and Pretoria, July 2007 .

and Southern Africa and at least one person from Western Africa with fluency in English and French. This enabled more efficient coverage of a number of national chapters and added awareness of local contexts. The team members had to have significant experience in research and knowledge for development in Africa (preferably on STIP-related issues), and, if possible, knowledge and experience with research networks.

18. The choices made were Rasigan Maharajh, Director, Institute for Economic Research on Innovation (IERI), Tshwane University of Technology, South Africa, and Kathryn Touré, the Regional Coordinator for ERNWACA, a research network with both Anglophone and Francophone country members from West and Central Africa. Ms. Touré wished to share the work and site visits with her network colleagues. Therefore, it was agreed that Mbangwana Moses Atezah, the Research Program Manager, and, to a lesser extent, Onguéné Essono, a researcher in the network, would be involved in West Africa.

19. The members of the evaluation team, in consultation with the current ATPS Executive Director, selected the ATPS countries to be visited. The sample[21] included countries with longer and stronger participation in the network, and the new countries in Francophone West Africa that had been the focus of ATPS expansion in its new phase. After consultations between team members and with the current Executive Director of ATPS, it was decided (based on available resources), that team members would individually visit 10 of the 23 countries that ATPS covers (1–3 days in each country). Due to the additional value provided by the West African team, 12 countries were covered. They included Kenya, Tanzania, and Uganda in East Africa; Lesotho, Zambia, and South Africa in the Southern Africa region; and Burkina Faso, Cameroon, Ghana, Mali, Nigeria, and Senegal in West Africa. This includes seven of the most active and oldest country chapters, and five new chapters of which four are Francophone countries. The visitors had discussions with, and sought inputs on key questions from, the national coordinators in all countries (except Kenya), additional members of the local ATPS Network, and any grant recipients who were available for meetings organized by the national coordinators. In a very few cases, policymakers and users were incorporated into the interview frame. These trips were planned for October 2007, with the assistance of the current ATPS Executive Director and staff of ATPS. An interview protocol was designed (with some overlap with the electronic survey) and used by the evaluators.

20. Work also began on four additional parallel and interrelated activities in September 2007: an electronic survey and tracer study; two focus group meetings; a separate study of the context for research in STI in Africa; and a financial review.

21. The first activity was the design of an electronic survey of ATPS participants and members. This was considered important to allow for the widest possible stakeholder inputs. It was also considered useful to add a small tracer study to learn about the views and outcomes of the first trainees supported by IDRC in the early 1980s, because this series of training workshops provided the seed for ATPS. Christopher Smart[22] was asked to take on the tracer study and to begin the survey design for all possible

[21] The parameters for the sample had been laid down in July in discussions with the current ED and reported as "team members will individually visit a sample of 8–10 countries (2–4 days in each country) where ATPS has been more active and use the visits to dialogue with and seek the inputs of national coordinators, members, recipients and policy makers on the questions above, to ensure that individual and national contexts and perspectives are incorporated in the findings and recommendations" (Rath, Amitav, July 2007, page 3). The sampling process was effectively positively biased to focus on activity and data-rich samples and to avoid those known to have little activity.

[22] Christopher Smart had been involved in the delivery of the workshops. After holding several senior management positions at IDRC, he retired in 2003.

participants in the network, from the early 1980s to the present. The survey was expanded by the lead technical evaluator to incorporate questions on two additional areas — the current context for such research and policy and the respondent's knowledge and use of ATPS.

22. This draft survey was circulated and shared with all the members of the evaluation team, the ATPS Secretariat in Nairobi, two coordinators of ATPS National Chapters, IDRC, and some donor representatives.[23] The final web-based electronic survey was made widely available in both English and French on several websites, including ATPS, IDRC, SciDev, ERNWACA, and Research Africa, on 20 October 2007. The ATPS Secretariat also sent the announcement to all national coordinators asking for their participation and for them to share the information among national members to get the widest level of input. In November 2007, the evaluators followed up with another request to the ATPS coordinators to encourage the participation of national chapter members in the survey. The survey was extended to close in mid-December 2007, the results of the survey were sent to all respondents who requested them, and the document was made publicly available.

23. As another input to the evaluation, two focus group meetings were planned. The meetings were designed to bring a cross-section of ATPS network members, research participants, and other stakeholders and clients (such as policymakers) together to discuss the functions, past work, relevance, and possible future directions of ATPS. The two meetings were to include one for Eastern and Southern Africa and one for Western Africa.

24. A separate and parallel study was commissioned by IDRC by a Kenyan researcher to examine the larger context for research in STI in Africa and to identify strategic research gaps and emerging issues in the region.[24]

25. Finally, a completely separate and independent study, a financial review, was tasked by IDRC to a management firm to review management controls at ATPS and the disbursements made from the three IDRC grants to ATPS during 2002–2006.[25]

26. The operational methodology emphasized the independence of each study. However, there was to be coordination within the team, and each member was responsible for a set of tasks that were to be later integrated. A semi-final draft of findings was to be presented at the annual meeting of ATPS in December 2007. Following this presentation, a final report, incorporating all inputs and findings was to be submitted to IDRC and ATPS in early 2008.

[23] Various suggestions for improvement were made and incorporated. The current ATPS ED suggested that some people in Africa might find it difficult to use a web-based survey. On this suggestion, a question was added to see what computer resource the respondents used. An option was also provided in the announcement to request the survey by email if the respondent had difficulty with web access. About 5 persons responded during the survey that they encountered difficulties. They were provided with assistance and all five were able to complete the survey.

[24] She was invited to the Bamako workshop to learn from the participants and to discuss her findings.

[25] This, with an audit focus, was conducted by Spearhead Management Canada Limited. The final report was submitted on 24 January 2008 to IDRC, covering details on internal and Board management, compliance along various dimensions, and an audit of the specific IDRC grants made to ATPS. There were three contacts between the evaluation team and the auditors. The first in early October to inform each other on the processes, then on 22 October 2007 at the ATPS office in Nairobi, and finally in the first week of November 2007 to be briefed on the preliminary findings.

1.5 Data gathering and analysis

27. The data used for the final reports came from a number of different sources and followed a bottom up approach. First, the annual reports of ATPS were used to build a data set of key activities, inputs and outputs, recorded outcomes and impacts, and their distribution by type and location. This was followed by the design of the electronic survey and the interview protocol for country visits. The survey was open for the period mid-October to mid-December 2007.[26]

28. In parallel, the country visits were undertaken during the period mid-October to mid-November 2007, and provided for interviews with key stakeholders in the sample countries and one focus group meeting. The reports are based on the interviews in the countries and the documents provided by the national coordinators, which include documents such as the local chapter organization, membership, plans, and activities (these varied between the countries depending on their circumstances) and reflect the perceptions of the network stakeholders in the countries. The information on organization and status of chapters was provided by the coordinators, and the other information on network activities and perceptions was provided by those interviewed. The names of those interviewed are provided except where interviewees requested that they not be named.[27] All reports from interviews were cross-checked with the interviewees. The qualitative data from interviews were also cross-checked with quantitative information provided by the ATPS Secretariat.[28]

29. Almost all major data on inputs, activities, process, and outputs came from IDRC and ATPS documents, and the sources are identified. These data were supplemented with the report on the audit conducted by Spearhead Management Canada Limited, and where the data used are from the Spearhead report the reference is provided. The period for which the data are most valid ends in November–December 2007. Some specific information was provided by the Secretariat on thematic research in February 2008, and the missing outputs on ICT policy were located in April 2008. These have been taken into account. If there are any remaining errors in the quantitative data they are in the source cited. The more limited data on outcomes are based on ATPS documents and were supplemented by the interviews with stakeholders. Qualitative information and judgements are identified clearly.

1.6 Timeline of evaluation

- **March 2007**: Agreement reached between IDRC and ATPS Secretariat to undertake an evaluation.
- **April 2007**: IDRC staff prepared the outlines and budget for the evaluation exercise for internal discussions and approval.
- **May 2007**: Lead technical evaluator was proposed by IDRC to ATPS.
- **June 2007**: IDRC contract with the lead technical evaluator; phone conference of ATPS, IDRC, lead technical evaluator; plans for an exploratory visit to ATPS offices in Nairobi to attend workshop, Board meeting, and meet with staff, Board members, and selected stakeholders.
- **July 2007**: Preliminary discussions by the lead technical evaluator with IDRC staff, review of documents at IDRC, and a visit to consult with an initial sample of key ATPS stakeholders in

[26] All respondents to the survey requested that they receive the findings of the survey.
[27] As discussed in footnote 13.
[28] The same process was used to cross-check the draft report with the comments made by the Secretariat before the reports were finalized.

Kenya, Tanzania, and South Africa.[29] Collection of background information from ATPS files, including any previous evaluations, and collection of lists of activities, outputs, outcomes, and any known impacts that had been documented.

- **August 2007**: Discussions on evaluation design, criteria for other team members, short list of potential individuals to be involved in this multi-component evaluation, and confirmation of their interest and availability. ATPS Secretariat sent all documents requested on a CD-ROM.
- **September 2007**: IDRC in consultation with ATPS, sent out a letter to all donors on the evaluation design and timeline.
- **October 2007**: IDRC contracts were issued and the work began. Evaluators discussed their plans, and plan country visits with ATPS. The survey was designed, discussed, modified, translated into French, and posted on five sites.
- **October–November 2007**: Travel to ATPS (Nairobi) and to countries of ATPS focus, and other stakeholder consultations. The writing of discussion notes began in late October[30] and was concluded in the first week of November. The current ATPS Executive Director requested a one-month extension of the web-based survey (extended to 16 December 2007). A set of unanticipated developments and misunderstanding resulted in considerable delay in the time taken for the first draft report and then the final revised report.
- **November 12–13**: Regional Workshop in Bamako, Mali held. Many confirmed participants who started on the trip were unable to reach Bamako, including the representative from Ivory Coast. This concluded the field visits.
- **December 2007**: First drafts of West Africa workshop at Bamako and country field visits were ready. Agreed that all reports must be sent to, and reviewed by, national coordinators for any errors or misstatements.
- **January 2008**: The analysis of the survey, and the results of the tracer study, was completed. The final report of the financial and organizational review was available.
- **February 2008**: All national coordinators and key respondents returned their own regional and country reports with any corrections.
- **March 2008**: The main report was drafted, incorporating the different components, and the "Draft Report for Discussion" was submitted to an editor.
- **April 2008**: All reports were edited and sent to the ATPS Secretariat by IDRC.
- **May 2008**: The ATPS Secretariat requested time until 14 May 2008 for review, and the Secretariat sent comments.
- **June–August 2008**: The evaluation team members shared the comments provided, discussed the approach to be taken among themselves, and reviewed the final report requirements with IDRC. A summary of the issues raised, discussions, and actions was prepared. The revised and edited final technical report was completed.

[29] Administrative delays prevented participation in the Kampala workshop. This made it impossible to meet with the previous Executive Director or with the ATPS Board as a whole, although several individual meetings were possible. At this time, it was discussed that it would be most useful if the ATPS Annual Meeting was scheduled for the middle of December to allow more time to complete the planned field work and to take advantage of the meeting by making a presentation on the evaluation.

[30] There was an overlap between the technical and financial evaluators on 21–22 October in Nairobi where some of the initial findings on governance issues were mentioned and discussed with the current ED of ATPS.

1.7 Actions taken on ATPS Secretariat comments

30. A large set of comments and documents was received from the current ED in response to the draft evaluation report. The comments were carefully considered and changes were made to the evaluation report when appropriate.

1.8 Constraints and limitations

31. This report was prepared under several constraints, and a number of limitations need to be noted. There were several changes to the plans due to unanticipated events. Time was the first and most severe constraint given the spread of the ATPS constituency across a vast region. This was especially acute after the ATPS annual meeting was scheduled 4 weeks earlier than anticipated during initial discussions.

32. To meet the shorter timeline available to make the presentations for the ATPS annual meeting scheduled on 19 November 2007, an effort was made to speed up the evaluation schedule during October. This forced the abandonment of the focus group workshop for Eastern and Southern Africa. A series of events in late October and early November also forced major changes to the process and to the timeline.

33. The time constraints were accentuated by several information constraints. One limitation faced was the nature of the information on inputs, outputs, and outcomes reported by ATPS and the lack of monitoring. For example, the available reports often had many repetitions and many gaps, making it more time consuming and difficult to ensure a clear and complete picture. The use of several different sources and cross-checking reduced this source of error to a reasonable level. Further rechecking with the detailed comments of the ATPS Secretariat to the draft report improved the accuracy of the final report.

34. One limitation of any survey, such as the one used, is that the results must be weighed against the sample size and characteristics of the respondents. At the design period it was hoped that there would be responses from about 50 or more individuals (about 20%) of those who had actively participated in ATPS activities. Unfortunately, the numbers of ATPS network participants was less than 40 out of 72. This has prevented a chronological analysis of perceptions of the network over time, as the spread of respondents over any time period is too small. There was at least one response from 13 of 22 ATPS chapters to the electronic survey, although a number of them had only one respondent. There were no responses from nine ATPS chapter countries, not even from the national coordinators, either to the survey or to emails. The sample does have much larger representation from the more active ATPS countries — Nigeria and Ghana responded enthusiastically. The survey does provide some useful views of ATPS chapters, and the levels of activity by national coordinators and members in the countries.[31]

35. A final limitation of this evaluation is that due to changes to the planned meetings, there was no opportunity for the evaluation team members to meet together as a group. Although electronic exchanges have ensured considerable discussion and a peer-review process, resulting in this unanimous report, it is probable that additional details and greater richness of the context, which would have been possible through working together across a table for several days, may be missing in this version of the report.

[31] The complete survey results are provided as a separate volume and posted on the Internet (www.idrc.ca). A short summary of the findings are provided within this main report.

36. The final report is based only on publicly available information (as documented in the report) and includes: the reports from ATPS; reports from the donors; the interviews and the submissions from the countries; the focus group discussions, where confirmed; and the survey of the STP constituency in Africa.

1.9 Scope and organization of report

37. This main report is structured like many evaluation reports that use the mental model of results-based management and log frames that lead to a linear sequence — inputs, activities, outputs, outcomes, and impacts.[32] The local context was explored through interviews in the member countries, and information on the evolution of the network was incorporated through discussions of the historical origins of the network, its state when ATPS achieved independent status, and subsequent network developments.

38. Section 1 provides an introduction to the goals and methods of the evaluation undertaken.

39. Section 2 presents the background and historical origins of the ATPS network, its stated goals and objectives, and the plans and different research and dissemination activities that ATPS undertook to reach these objectives. It also provides the background to the ATPS management and governance structures and a key element of the network, namely the country chapters. This description is provided keeping the historical evolution of ATPS in mind, often with two distinct but related parts. The first is the situation of the network when managed by IDRC, and the second discusses the changes after independence in late 2000 and early 2001. This second section concludes with brief highlights from two earlier evaluations of the network that had alerted stakeholders to several key structural challenges that faced the network in the late 1990s and very early in the period under focus 2001–2007.

40. Section 3 gathers the findings of the different reviews, the analysis of data, and the findings from interviews.

41. Sections 4 and 5 provide the major conclusions and a very brief set of recommendations.

42. There are several annexes to the report. They contain the terms of reference, provide short biographies of each team member, and include tables that provide more detailed statistical information.

1.10 Acknowledgments

43. We wish to record our thanks to the many individuals who gave so much of their time, in particular the many country coordinators and other national stakeholders who participated in several intensive interviews and discussions, provided written inputs, and also encouraged participation in the survey. They are listed in the annexes. We also thank those who gave of their time and views, even where they requested anonymity and are not listed.

44. We wish to record our thanks to all the staff of the ATPS Secretariat in Nairobi who were present during the evaluation process. They have all individually provided considerable time and information for this evaluation, not only during the visits to Nairobi, but also for the considerable effort required to pull

[32] In the evaluation literature, “outcomes” refer to the medium term; whereas, “impacts” refer to the longer term. Both deal with results that go beyond what is within the direct control of the organization (outputs).

together all relevant ATPS documentation in electronic format in July and August 2007. The staff provided full support in assisting in the country travel, in making contacts with the national coordinators and a number of the stakeholders, and in providing additional information and clarifications that were subsequently requested.

45. We deeply regret the inconvenience of the stakeholders who were unable to fly to Bamako in spite of holding confirmed tickets. We also regret the errors in the draft report and thank the Secretariat for pointing them out in its meticulous and detailed review of the draft. The lead technical evaluator wishes to especially thank the team members for remaining available for the checks required and for consultations in May. Thanks are also due to IDRC for advice on the process. Finally, should there be any remaining errors, however small, they are regretted.

Section 2. Goals, Objectives, and Activities

2.1. Historical Context

46. The origins of ATPS go back to the early 1980s and have considerable bearing on the evolution of the organization. In the early 1980s, IDRC responded to requests from African researchers and policymakers to support science and technology policy-related research and capacity building. A series of workshops were held in Africa, and two regional programs were established in a network structure to support individual researchers with competitive grants and capacity-building elements.[33] The two precursor networks were the Eastern Africa and Southern Africa Policy Studies Network (EATPS), which began in 1982, and the West African Technology Policy Studies Network (WATPS), which began in 1984. These two research networks were merged into the African Technology Policy Studies (ATPS) network in 1994, which cut across 15 countries[34] in Anglophone sub-Saharan Africa.[35]

47. An important characteristic of the network from the beginning was to encourage mechanisms for national level participation. This was done through national focal points and some workshops and meetings, and was continually strengthened between 1997 and 2001. It was decided that national chapters would be created and that they were to become almost independent, nationally registered, membership organizations.

48. The ATPS network was managed on an interim basis (1994–2001) within IDRC's Nairobi Regional Office by staff dedicated to this purpose. From the outset, the intention was to find an appropriate independent base for the network Secretariat, and IDRC began to encourage the participation of additional donors in the network. The first partner, the Carnegie Corporation of New York, joined IDRC in 1989, and the Rockefeller Foundation joined in 1992. With these new donors, ATPS could evolve from an IDRC-managed project to assume a semi-independent status. The donors, in particular IDRC, had always envisioned the growth of the ATPS Network[36] into an independent organization that could set its own course. A steering committee representing donor partners and eminent African scholars became the first step toward greater autonomy.

49. In 1996, a new donor partner, the Government of the Netherlands, indicated its desire to support ATPS. The Government of the Netherlands required an independent legal entity to receive its funds. This led to a first effort to incorporate ATPS as an independent entity. A parallel "ATPS Incorporated" was registered in Mauritius in 1996 to handle the Dutch funds. Subsequent reflection suggested that it would prove difficult to manage a dual entity and this initiative was reversed and the money returned to the Netherlands. IDRC and other donors agreed to work toward creating a single independent registered organization that could receive and manage funds from diverse sources, in particular from the Netherlands.[37]

50. In 1997, efforts were renewed to find a new independent base for ATPS. During 1997–1998, the Chairperson of the Steering Committee of ATPS analyzed different options to determine a future course

[33] For more details on the history of ATPS, see the tracer study report by Christopher Smart.
[34] If Liberia is included in the total.
[35] Specific countries were not targeted by the network until the mid to late 1990s. The network "countries" emerged largely through the selection of participants for the workshops and later the locations of those who were successful in grant competitions.
[36] ATPS Network, or the independent ATPS, is used to describe ATPS after it acquired independent status from IDRC.
[37] IDRC grant document 92-0418, July 1997, p. ii-iv.

of action, specifically the location and legal status of ATPS. The steering committee recommended the establishment of a fully independent entity based in Nairobi[38] that could be a centre of excellence in Africa and emulate "another success story, the AERC."[39] In October 1999, with the assistance of IDRC's legal office and the IDRC Regional Office in Nairobi, a Memorandum and Articles of Association of the "ATPS Network" was prepared for registration as a company limited by guarantee with no capital share, based in Nairobi. This was completed on 8 August 2000 when the new "African Technology Policy Studies Network" was registered as an independent private company under the company's act of Kenya (Chapter 486, Laws of Kenya). The independent steering committee that had guided ATPS dissolved itself on 4 November 2000 and was reconstituted as the first Board of the independent ATPS.[40] In November 2000, the Board appointed the Acting Executive Director as the new Executive Director given his long experience with the donors and the network.[41] All individuals on the Board and the Secretariat, as well as the National Coordinators, were the same in the independent ATPS Network as in the former ATPS Secretariat.

51. On 28 May 2001, IDRC sought the permission of its own Board to transfer the assets held by IDRC in trust for the ATPS Secretariat to the newly independent ATPS Network. The IDRC Board was informed that ATPS had received final grants from the Rockefeller Foundation and the Carnegie Corporation of New York. However, significant new funding was expected from the Government of the Netherlands, an early supporter of independence, and another application for a grant for US$3 million was pending with the African Capacity Building Foundation, both of which required an independent ATPS.[42] ATPS started with a firm budget of US$1.5 million for the first 2 years (and almost the same amount as cash on hand at independence). But given the anticipated new donors, the budget was flexibly designed to accommodate revenues of US$10.5 million over 4 years.[43] The next important milestone in the organizational development of the ATPS Network was the agreement reached with the Government of Kenya in December 2003, after 2 years of discussions, to be recognized as an independent international institution. This agreement offered various tax-free privileges and easier facilities for visas and the other needs of an international network.

2.2 Organization, Objectives, and Programs

52. This section provides an overview of the main goals, objectives, and activities of the new ATPS and some key findings regarding the network from earlier evaluations.

2.2.1 Overall Objectives

53. The Articles of Association, as registered under the company's act of Kenya, spelled out the objectives of the organization:

- To build individual and institutional capacity in the sub-Saharan African region for technology (including emerging technologies) policy formulation, analysis and research, including policy.

[38] Memorandum to the IDRC Board of Governors, 28 May 2001.
[39] IDRC, Notes to File, Project Number 101339, December 2004.
[40] Minutes of the Steering Committee/Board dated 4 November 2000.
[41] The newly appointed Executive Director had been the IDRC Program Officer responsible for ATPS and had been a member of the steering committee for many years as a representative of IDRC. He had also been the acting Executive Director on an interim basis while a search was conducted for a new head.
[42] Other anticipated donors included the Ford Foundation, the European Union, and the OPEC fund.
[43] Memorandum to the IDRC Board, 28 May 2001.

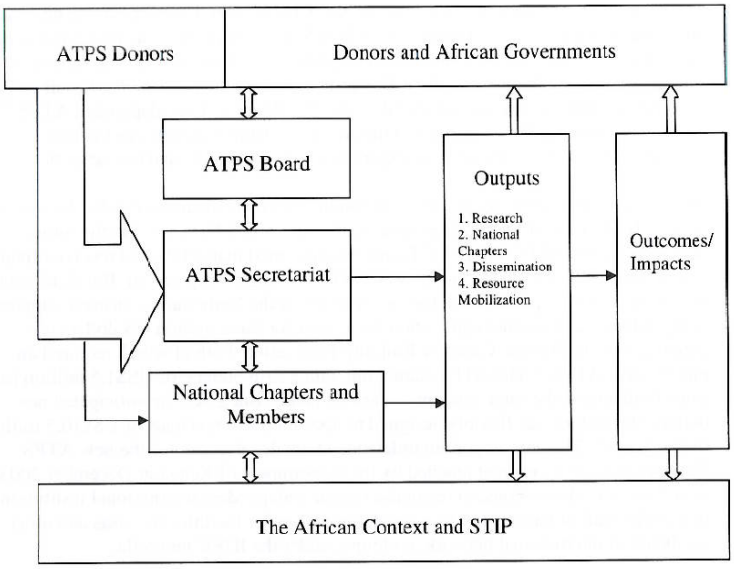

Figure 1. A systems framework of ATPS: inputs, outputs and stakeholders.

- To generate and build up knowledge on technology policy issues pertinent to the sub-Saharan region.
- To foster collaborative research and networking between science and technology researchers and policy experts based in or contributing to the sub-Saharan region including interdisciplinary cross-sectoral collaboration.
- To disseminate research results.

54. These objectives are closely allied with the vision and mission statements of ATPS developed in 1998, when managed by IDRC.[44] The ATPS Annual Report 1999 (page 4) states:

- The vision of the African Technology Policy Studies (ATPS) Network is to become a centre of excellence and reference on issues of science and technology policy in sub-Saharan Africa. It is also to become a broker between policy researchers and analysts on the one hand and policy makers, implementers, and evaluators on the other.
- The mission of ATPS is to improve the quality of technology policymaking, implementation, - monitoring and evaluation in sub-Saharan Africa and to strengthen the continent's institutional capacity for the management of technological development through strategic and organized systems of technology policy management assessment, technology policy institutional development and technology policy information, development and use. This, mission is to be achieved through research, dissemination, training and policy dialogue.

2.2.2 Major Goals[45]

55. The new ATPS started off with the aim of continuing previously approved activities over the 4-year period (2000–2003)[46] around four main objectives:

[44] To strengthen the technology policy research capacity, including policy assessment and dissemination of research results, with the objective to improve the quality of technology policy formulation, analysis, and implementation. IDRC grant document for ATPS Phase III, 27 August 1998, page 2, and ATPS grant application.
[45] ATPS Phase IV Grant Proposal, January 2000 – December 2003; and ATPS Phase V Strategic Plan, January 2004 – December 2007

- Support research, generate knowledge, and build up research capacity of individual researchers and organizations in the sub-Saharan African region and build a critical mass of knowledge for technology policy research, analysis, and policy formulation and implementation.
- Disseminate research results through workshops, seminars, publications, journals, policy dialogue, advisory services, video, films, radio, and print media, with the aim of disseminating the research results widely, and increasing linkages between researchers and also with policymakers and productive sectors.
- Recognizing that the strength of the ATPS Network lies in the activities of the national chapters, strengthen chapter activities with national planning and training workshops, research, research/policy linkages, network management, and resource mobilization.
- Increase sustainability of the network through increased resource mobilization together with processes that support increased articulation with national and regional policy structures, maintain accountability, complete transparency, and provide adequate feedback mechanisms through appropriate reporting and consultation mechanisms.

2.3 Research Support Programs

56. This section provides background and context. It also describes the core activities of the network and some of the evolution described in ATPS Network documents.

57. The new ATPS Network started 2001 with a program of research it had inherited. The primary element was competitive research awards given to individuals (sometimes also called the small grants program). These were judged through country and regional level peer-review processes. A second approach was to support research that was more thematically coherent around major issues of importance to the countries.

2.3.1 Research Awards

58. Competitive awards of individual research grants were always a feature of the network (Table 1) and were continued. ATPS planned to support annual research competitions, which had on average attracted about 100 proposals each year, and also to begin regional research projects.

Table 1. Individual research awards provided by ATPS 1994–2000.

	Competitive Research Awards	Annual Average
1994–1996	29	10
1997–2000	59	15
Total	88	12

Sources: 1994–1996, ATPS Newsletter No. 6, July–Dec. 1996; Total from Clark and Mugabe (2002, p. 50).

[46] Until then, ATPS had made 2-year plans. It was suggested by the new Executive Director to the Board that 2 years was too short a time to show results, and the longer time frame was approved.

2.3.2 Capacity Building

59. The newly independent ATPS (through its predecessors) was estimated to have a base of people, with enhanced research and proposal writing skills of over "700 scholars in (15) member countries; (and had) received 600 research proposals of which 124 had been funded as of 2000."[47]

2.3.3 Thematic Research

60. In 1993,[48] ATPS identified key themes for the research awards to achieve a degree of coherence, encourage greater commonality among the researchers, and allow closer interactions and knowledge outputs that were larger than the sum of individual studies. It defined three key thematic issues for science and technology policy research and for policy dissemination:

- Economic policy reforms and technological developments.
- Technological capabilities, change, and impacts in Africa.
- Implications of new and emerging technologies.

61. During 1995–1997, ATPS developed ideas for several new cross-country proposals — one on enhancing the transfer of biotechnology to farmers; two on small and medium enterprises; and one on gender and technology. Additional funding was sought for the themes. ATPS also planned to make use of the existing resources to begin work in 1998 in six countries (Ghana, Kenya, Nigeria, Tanzania, Uganda, and Zimbabwe) on comparative research on issues emerging from the first two themes. In 1996, ATPS received a grant from the Government of the Netherlands to begin research on the "Technological capabilities in the context of changing policy environment in sub-Saharan Africa" but this had to be returned because ATPS was not yet an independent organization.

62. In 1997, ATPS prepared a new document[49] that made major improvements in the descriptions of the three key thematic research areas and placed emphasis on ICTs and biotechnologies among the priority new technologies. It also added two new thematic areas:

- Indigenous technologies and systems of production.
- Technological change and consequences.

63. For the next period, 2000–2003, ATPS further expanded the thematic issues that were important for the network:

- Technology policy effects on the use of local raw materials and indigenous technologies.
- Foreign direct investment and technology transfer.
- WTO issues as they relate to technology policy in Africa.[50]

[47] ATPS Phase IV (2000–2003) grant proposal, page 1. IDRC assumed that deficiencies, which included lack of clear strategies for devolution of "greater responsibility to the national chapters," "insufficient evidence of the capacity of different chapters," and "a lack of clarity about the results expected" would be addressed during implementation (IDRC memo 26 May 2000).
[48] ATPS Grant Document, IDRC Project dossier 92-0418, March 1993.
[49] A Strategic Framework for ATPS in the Next Decade, ATPS, October 1997, pages 18–24.
[50] The old themes were not abandoned, but the new ones were added because "ATPS themes are continually evolving" (ATPS Phase IV Grant Proposal, January 2000 – December 2003). Gender issues in science and technology policy were also highlighted although they had been there under the theme "technological change and consequences."

64. The WTO and technology issues were identified as a pressing capacity-building agenda for "Strengthening Africa's Participation in the WTO Negotiations." Later in the Phase IV Grant Proposal, "Addressing Biotechnology in Africa" and "Health Technology Policy Issues" were added as additional priority areas for thematic research.[51] The planning document did not discuss or report on any thematic research that had yet been completed. It did define in greater detail that "regional research projects (in as many countries as funding will allow) will identify national technology policy options that hasten the benefits of globalization toward poverty alleviation." The approach emphasized by ATPS would be to "first create and disseminate knowledge on science and technology policy issues and then build capacity to formulate and implement innovative technology policies that not only reflect local needs, but support global initiatives."

65. The Phase V (2004–2007) grant proposal reported that in 2002 a Regional ICT Project, "Strengthening National ICT Policy in Africa: Governance, Equity and Institutional Issues" was initiated with funding support of US$200,000 from IDRC, US$150,000 from Ford Foundation, and US$50,000 from the OPEC Fund.[52] This proposal also noted that "Strengthening Africa's Participation in the WTO Negotiations," "Addressing Biotechnology in Africa," and "Health Technology Policy Issues" remained additional priority areas for work.

2.4 Dissemination and Communications

66. ATPS planned a vigorous effort to use workshops, seminars, publications, journals, policy dialogue, and other media to disseminate research results widely and to increase links between researchers and with policymakers and productive sectors.

2.4.1 Publications

67. The independent ATPS began by strengthening the publications program begun earlier.[53] It continued the practice of producing Working Papers (produced from the findings of ATPS-funded individual research grants or from collaborative regional projects). These papers were not peer reviewed, but ATPS often supported efforts to improve their readability. ATPS also produced Special Papers (some commissioned by ATPS, others notable conference papers or keynote addresses by distinguished academics or researchers, which were judged to be of excellent quality) to address its "knowledge brokerage" role.

68. The ATPS Network also added two new publication types.

- Research Papers, which were based on the findings from research grants and regional projects, but subject to quality control. These papers required a positive review from two of three external reviewers before publication.
- Technology Policy Briefs, which were commissioned papers written by experts, both from and outside Africa, to address current science and technology policy concerns and questions in

[51] The first three issues are identified under regional research projects, pages 22–24, the next three are identified under capacity building, pages 25 and 28. The requirements for undertaking such thematic research are described and discussed by Clark and Mugabe (2002). They identified the need to incorporate additional expertise and network partners to undertake such research.
[52] IDRC Project Approval Document 102611.
[53] In 2001, when the independent ATPS started, 31 Working Papers (out of 98 grants) and two Special Papers had been published. One ATPS report noted that, over its first 18–24 months, the new ATPS Network published 27 documents, almost the same number as in the previous 6 years.

Africa. They included summaries and reviews of published technical papers rewritten to highlight significant policy recommendations. These were directed at policymakers and non-specialist audiences for wider policy influence.

69. Beyond these research outputs, ATPS continued the six-monthly newsletter (begun in 1996) and planned a quarterly publication,[54] published an Annual Report, and produced occasional separate reports on thematic research issues through Annual Conference and Workshop Reports (most often the conference report was combined with the Annual Report especially after 2002).

2.4.2 Website

70. ATPS established a website as www.atpsnet.org in 2002. This website made it possible for the network to post all publications for wider access. The goals for the website included the hosting of discussion groups to exchange information on science and technology issues between ATPS network members and the public.

2.4.3 Annual Meeting

71. An annual meeting of the network has been an extremely important activity for ATPS from its beginning, and has served multiple purposes. The annual meeting evolved to allow the small number of STP researchers to meet, present their proposals and results before peers, and receive peer review from colleagues and from invited outside experts. Over time, with a growth in the portfolio of research, they also began to provide a channel for reaching out to selected policymakers. With the beginning of thematic research programs, the annual meeting provided a forum to discuss specific thematic issues to be taken up for research and to prepare the groups involved in such research. After the creation of an independent ATPS, this occasion allowed discussion of strategic plans — for example, the ATPS Strategic Plan for Phase V, 2004–2007, was first discussed at the November 2003 Annual Meeting in Maseru, Lesotho. The Annual Meetings also provided an opportunity for one meeting of the Board and an annual general meeting of the members of ATPS.

2.4.4 National Workshops

72. Training for research, capacity building for proposal writing, and research and subsequent dissemination at the national level were important activities for the network. Workshops at the national level, organized and undertaken by national stakeholders in the ATPS network, with financial and sometimes technical support by the Secretariat, provided a key mechanism for ATPS to reach out to the ultimate beneficiaries of network activities. These continued to be emphasized in the plans.

2.4.5 Outreach Activities

73. The newly independent ATPS also embarked on two new outreach activities — a workshop marking "Scientific Revival Day of Africa" in 2002 and a second workshop (2004) to engage youth in Africa on important development issues:

- Scientific Revival Day of Africa — This new initiative began in 2002 when "in keeping within its brokerage role," ATPS decided to engage the scientific community in Kenya to mark this day. As a precursor, the former Executive Director of ATPS had written an article titled "Can Africa Develop without Science and Technology?" that was published in newspapers in Kenya and Ghana, and carried by the Pan African News Agency across Africa. This was seen as a

[54] Clark and Mugabe (2002), p 22.

successful outreach strategy and the Board "took the decision to adopt Science Revival Day as a means to remind Africa of the importance of S&T and to showcase what the continent is doing (innovation, research) in S&T."[55] Future events were to be marked by exhibitions demonstrating regional efforts to promote science and technology across chapter countries.

- Youth — ATPS noted in 2004 that it was "developing a Youth Science Program as a way of exciting and sustaining the interest of the youth in science and technology studies, in order to build both constituency and capabilities."

2.5 Countries and National Chapters

74. A key feature inherited by the new ATPS included the existence of a local presence in several countries. In the new organization, the local focal points that had existed in 15 countries were replaced by independent national chapters to be led by a national coordinator. ATPS looked forward to "this formalisation" because it "not only makes for demand driven programmes, it firmly establishes the ownership of the Network from the bottom up. The national chapters have become the wellspring of new ideas and the bedrock of policy linkages and capacity building."

75. ATPS established a network of science and technology policy researchers and policymakers in 17 African countries in 1998–1999.[56] During 2000–2003, the plan was to provide seed money from the Secretariat to support the organization of national research methodology workshops, national dissemination workshops, and science and technology policy dialogues. The work was to be focused in eight countries.

76. The 2004–2007 strategic plan stated that "national chapters exist in 18 countries, namely Botswana, Cameroon, Ethiopia, Gambia, Ghana, Kenya, Lesotho, Liberia, Malawi, Mozambique, Nigeria, Senegal, Sierra Leone, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe;" whereas, ATPS activities occur in 21 African countries, namely, the chapter countries plus Morocco, Rwanda, and South Africa.[57] ATPS reported that the "ATPS Board has approved the formal establishment of chapters in Benin, Burkina Faso, Cote d'Ivoire, Mali, Namibia, Rwanda and South Africa."[58] ATPS stated "there are two strategic objectives" — "support to existing national chapters and … growing the network through new chapter expansion." Given the well articulated importance placed by ATPS, both new and old, on links to the countries where there are national chapters, the status of ATPS activities in the countries (as inherited by the new ATPS) and the growth and evolution of their status, activities, structures, outputs, and impacts after the renewed efforts in 2001–2007 are an important dimension of the network.[59]

77. This evaluation did not go into the details of the earlier period (before 1994), when there were two networks. The ATPS grant document for 1994[60] mentions that researchers from up to 15 countries belonged to the network — Botswana, Ethiopia, The Gambia, Ghana, Kenya, Lesotho, Liberia, Malawi, Nigeria, Sierra Leone, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe. The grant provided for a small honorarium of US$1000 for an individual designated as the focal point and funds for local

[55] ATPS Phase V, 2004–2007 Strategy Document, page 20.
[56] ATPS Phase III grant application, 27 August 1998, page 9.
[57] These three countries were listed as the research coordinators for the ICT Policy Study, based in South Africa, and the same research had components in Morocco and Rwanda.
[58] The IDRC file on grant 101339 reports in 2004, page 2, that the grant has allowed ATPS to expand to 25 countries. Also, these "chapters are not 'monikers' but fully functional networks that organize workshops in each of the respective countries."
[59] This aspect of ATPS had not been covered as thoroughly in the earlier evaluations, although it had been noted as one of the key issues faced by ATPS with respect to its work in the member countries.
[60] IDRC grant 92-0418, lists countries on page 6, and funds for countries on pages 30 and 31.

workshops for research training, for proposal review, and for dissemination workshops in each country.[61]

78. Table 2 summarizes the awards up to 2002 and the location of the countries with national coordinators who were appointed in 2000. This shows that ATPS had some activities and alumni from the research awards programs in up to 13 countries.

Table 2. Summary of research awards by country (1994–2002) and location of national coordinators.

		Research Awards					
	Original Network Countries	E and W TPS[a]	1994–1996	1997–2000	Total 1994–2000[b]	1994–2002[c]	National Coordinators 2000
1	Botswana	2		1	1	3	Yes
2	Ethiopia	—	1	—	1	—	Yes
3	The Gambia	—	—	1	1	—	No
4	Ghana	2	3	7	10	12	Yes
5	Kenya	2	8	14	22	24	Yes
6	Lesotho	—	—	2	2	2	Yes
7	Liberia	—	—	—	—	—	No
8	Malawi	—	—	—	—	—	No
9	Nigeria	9	11	34	45	54	Yes
10	Sierra Leone	5	1	3	4	9	Yes
11	Swaziland	1	2	3	5	6	Yes
12	Tanzania	7	—	1	1	8	Yes
13	Uganda	2	1	2	3	5	Yes
14	Zambia	—	1	1	2	2	Yes
15	Zimbabwe	1	1	—	1	2	Yes
	No. of Awards	31	29	69	98	127	
	No. of Countries	9	9	11	13	11	

[a] IDRC project document 92-0418.

[b] ATPS Annual Report 1999, Annex VI, which also lists national focal points, the predecessor arrangement to the National Coordinators, as existing in 10 countries in 1999 and gives a description of activities. There was no focal point in Tanzania. The number is also 98 in the 2001 Annual Report (but inclusive of 2000).

[c] Annual Report for 2001, which also announced the awards for the following year.

79. Liberia was torn by a civil war from 1989 to 2004, therefore, the inactivity in Liberia after the STP training workshops hosted there in the early 1980s is understandable. Sierra Leone provides an example of a country where local workshops were held just before its own civil war broke out in 1991. Sierra Leone has continued to be an active member through the entire period and has won the fourth highest number of research awards. Malawi has been inactive. Ethiopia and Zimbabwe had some involvement in

[61] It was recognized that the number of active countries with a focal point and local activities were likely to be smaller. The Steering Committee was empowered to take decisions on country activities based on the actual circumstances.

the earlier period and then were absent. Gambia had one research award and hosted the 1999 Annual Conference.

80. The eight countries that have been consistently active from the earliest days, with significant numbers of research awards, are Ghana, Nigeria, and the Sierra Leone (three Anglophone countries in West Africa) and Kenya, Lesotho, Tanzania, Uganda, and Zambia (five countries in Eastern and Southern Africa).[62] There was initially a high concentration of awards in Nigeria with almost half the awards provided to Nigerians (Clark and Mugabe 2002). Later, Nigeria, Kenya, and Ghana were most successful in the awards competition. In 2000, when the ATPS Steering Committee appointed 12 national coordinators, it was trying to promote activities in four relatively quiescent countries (including Tanzania, which had been active earlier but had become dormant after the two regional networks were merged).

81. With an effective base of between 8 and 10 active chapters, the newly independent ATPS Network set for itself an ambitious target of activities in 24 countries. It stated the reasoning as "the original concentration of ATPS in 15 anglophone countries was mainly dictated by donor and resource constraints. To be truly African, ATPS needed to expand into francophone West Africa where there is a diverse research tradition and an active civil society. The Board approved this expansion (in 2001), and national chapters in Cameroon and Senegal have been set up. The Secretariat has begun preparatory investigations to initiate the process of expanding the network into Mali, Côte d'Ivoire, Burkina Faso and Benin." Besides the six new Francophone countries, ATPS determined, "there was a lot to learn from South Africa just as South Africa has a lot to learn from the rest of Africa." ATPS planned to expand into Southern Africa (to include Namibia and Mozambique), after Francophone Africa and South Africa had been added to the network.

2.6 Sustainability: Resources and Governance

82. ATPS recognized[63] that the long-term sustainability of the organization depended: on its articulation with national members, S&T policy institutions, and other stakeholders through its outputs and activities; governance mechanisms ensuring feedback mechanisms, transparency and accountability; and a focus on raising funds through a diverse group of donors.

2.6.1 Organization, Management, and Governance

83. The main outlines of the structure for ATPS were laid out in the first IDRC grant.[64] A key change took effect in November–December 2000 when ATPS was registered under Kenyan law as an independent body. Two important structural changes occurred: the conversion of the Steering Committee of the old ATPS to the Board of the newly independent ATPS; and continued efforts to strengthen the national chapters and to structure them as independent, nationally registered, membership-based, legal entities, guided by a National Coordinator. The members of the Board and most national coordinators, served on an honorary and part-time basis, and the Secretariat provided the full-time staff for the ATPS Network.

[62] The ATPS Strategy Document 2000–2004 states that when the Secretariat undertook a survey of National Coordinators, eight responded.
[63] ATPS, A Strategic Framework for ATPS in the Next Decade, October, 1997 and ATPS, Phase IV Strategic Plan and Grant Proposal, January 2000 – December 2003.
[64] IDRC project document 92-0418 provided for a Steering Committee, a Coordinator with supporting staff, and a national presence.

Steering Committee/Board — The first grant set up a Steering Committee at the top of the ATPS structure. It included representatives of the network sponsors, five eminent scholars in technology policy issues, one of whom was to be the Chair, and three representatives of the research network. With three donor representatives, the ATPS had an 11-person Steering Committee.[65] When the independent ATPS network was formed, the Steering Committee of November 2000 was converted to its first Board.

Secretariat — The new ATPS Network Secretariat started in 2001 with a staff of three:[66] the Executive Director,[67] a Research Officer, and an Administrative Assistant (Table 3).

Table 3. ATPS staff and administrative costs 1996–1999.

	1996	1997	1998	1999	Total	Average
Staff	3	3	3	3	3	3
Cost	$89,000	$94,500	$112,000	$99,400	$394,900	$98,725
With 10% overheads	$97,900	$103,950	$123,200	$109,340	$434,390	$108,598

Source: ATPS Financial Reports, IDRC documents.

84. By the end of the first year, a new Finance and Administrative Manager was added. More rapid growth in ATPS took place in 2002 — six new staff members were added (a Communications and Outreach Officer, Programme and Publications Administrator, Research Officer, Accounts Assistant, Administrative Assistant, and a Receptionist).

National Chapters and Members — The articles of association laid down provisions for National Chapters, which were registered in other countries of Africa as the "affiliates" of the new Network and subject to guidance and oversight by the Secretariat. Each chapter had a National Coordinator who was appointed by the ATPS Board. In the earlier period, three representatives of the research network were members of the Steering Committee.

85. The Phase IV strategy document of the ATPS described the structural relationship of the independent ATPS (see Figure 2).

Members of the ATPS Network — The articles of association of the ATPS Network state: "Members form the base" of the independent ATPS Network. It lays down an organizational structure with four categories of members — individual, institutional, honorary, and donor members. The members were to meet at an Annual General Meeting at which time each member with one vote would elect members for the Board positions. The ATPS Network Strategic Plans Phase IV (January 2000 – December 2003) stated that the ATPS membership was estimated at between 500 and 700 and would be increased.

[65] The initial membership included five senior African research scholars, two STP researchers from outside Africa, who had been among the faculty of the initial Technology Policy Workshops, one representative of Carnegie Corporation of New York and two from IDRC, the two major donors. The IDRC representatives were the Regional Director for East Africa and the IDRC Program Officer responsible for the funds to ATPS.

[66] ATPS Report, IDRC Audit Services, 28 May 2001. This was the size of the coordination unit from 1994 to 2001 when it had additional support from IDRC staff for various activities.

[67] He had been the IDRC Program Officer responsible for the ATPS Secretariat and took leave of absence to provide direction to the ATPS Network in its formative years (IDRC memo, 28 May 2001).

ATPS Organogram

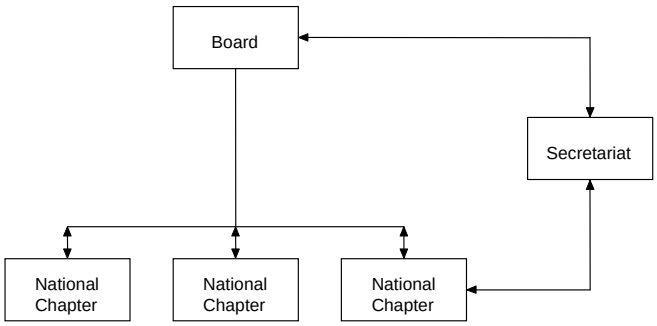

Figure 2. ATPS Structure.

2.6.2 Program Resources and Donors

86. Three donors supported ATPS before the new structure — IDRC, the Carnegie Corporation of New York, and the Rockefeller Foundation. The network had available to it approximately US$840,000 per year from these donors during 1995–2000 (Table 4), but looking at the 4-year budget it comes to a little over US$900,000. An approximation between these two sources suggests a rounded figure of around US$900,000 per year as the resource inputs in the previous years.[68]

Table 4. ATPS Resources 1995–2000.

Donors	Funding (US$) (1995–2000)
IDRC	2,500,000
Carnegie Corp.	1,995,352
Rockefeller	537,695
Total funds	5,033,047
Annual Average 1995–2000	839,000

Source: IDRC documents at the time of the transfer of assets.

87. It was known that the Carnegie Corporation of New York and the Rockefeller Foundation planned to withdraw their support to the network.[69] It was estimated in 2001, however, when the new ATPS Network was created, that with new funds expected from the Government of the Netherlands and the African Capacity Building Foundation (ACBF), and the continued support of IDRC, the new ATPS Network would have over US$10 million (cumulative for 2001–2004) for its activities. Subsequently, the plans made in 2003–2004 were more ambitious and estimated that the total funding for all ATPS activities in the period 2004–2007 would be US$11.6 million.

[68] This estimate of a rounded average of around US$900,000 per year for program resources closely matches the figures on US$915,000 per year constructed from expenditures in Table 5.
[69] This was anticipated due to changes in their policies, but, in fact, the Rockefeller Foundation continued supporting ATPS activities through 2006.

2.6.3 Resource Mobilization

88. From the beginning, long-term sustainability of the independent ATPS was seen to depend on resource mobilization and a diversified group of both external donors and countries in the region.[70] A primary driver for an independent ATPS was the requirement of two significant funding sources, the Government of the Netherlands and ACBF, which could only provide support to independent organizations.

89. There was concern expressed at the time, that administration — Secretariat (salaries, office, and travel) at 22% and Governance (Steering Committee) at 8% — costs were relatively high, but they were also seen as essential (see Table 5). In fact, these costs may be low because extra costs would be required for supporting many "invisible" expenses and activities that had been borne by IDRC in the past. Among these are a set of basic systems of governance, management, control, checks, and reviews.

Table 5. Resource allocation by ATPS for activities 1996–1999 (average reconstructed).

		US$	%
Research			
	Research awards	280,000	31
	National Chapter support	115,000	13
	Publications support	50,000	5
	Consultant support	35,000	4
	Annual meeting	165,000	18
Secretariat	Salaries	133,000	15
	Office and travel	67,000	7
Sub-total Secretariat		200,000	
Governance	Steering committee	70,000	8
Total Budget		915,000	100

Source: IDRC Grant documents for 1996–1999

2.7 Expected Outcomes

90. The ATPS Network stated that one major benefit came from the networking of members, which encouraged researchers from different countries to team up and allowed for exchange of skills and a breaking of the isolation of the small number of researchers in the field.[71] This in turn leads to improved quality of research and training. These activities generate new knowledge and thereby improve the capacity of researchers and policymakers to use the new knowledge and to develop S&T policies and innovations to address developmental needs in Africa.

[70] A Strategic Framework for ATPS in the Next Decade, ATPS, October 1997, pages 23–25.
[71] ATPS Phase IV (2000–2003) grant proposal, page 1, and also ATPS Phase V Strategic Plan.

2.8 Evaluations

91. One evaluation of ATPS was undertaken during the period of IDRC management. This evaluation took place in December 1996 at the end of Phase I — 2 years after the creation of the all-Africa network.[72] This evaluation concluded that ATPS was an excellent initiative to fill a crucial gap in Africa. The report noted that the network existed in a difficult context because "the diffuse boundaries of the subject area," the many different disciplines involved, the scarcity of research capacity in this field in Africa, and the low priority accorded by most governments. It commented that given these difficulties, the network had made a good start and that 2 years was too short a time for achieving its stated objectives. It noted the following weaknesses: the concentrations of the researchers in "very few countries;" the large variety of research topics; poor publications record; under development of the network activities; and low visibility of the network.

92. The suggestions made for improving the network included more national seminars and training, improved criteria for judging proposals (with written feedback), some thematic network research, and steps to improve the quality of research outputs with the aim to publish them in reputed international journals, taking the example of the AERC. They also recommended the possibility of focused training — including post-graduate training in technology policy in selected universities. Finally, they emphasized that the structure and governance of the network needed careful thought. Beyond establishing an independent legal entity, they added that "support mechanisms" for the different research programs, links at national level, and the judicious use of funds would be important.[73]

93. The next evaluation was planned in November 1997 toward the end of Phase II but was not held. Another evaluation was planned for June 1999, 18 months after the commencement of phase III (1997–1999).[74]

94. The ATPS Plan for 2000–2004[75] stated that "the Board has commissioned another external evaluation" and this happened in 2002.[76] This evaluation of the independent ATPS Network focused on several key summary recommendations: improvements to its mission statement; new areas for research; capacity building at several levels — research methodology, improved research proposals and peer review, and training programs (including STP courses at the university level, graduate research awards, and linking research to the national chapters); improved capacities at the Secretariat; increased efforts to link the network to user groups and to reduce isolation; and a set of indicators by which ATPS should monitor and report on its own development and performance.[77]

95. Clark and Mugabe made extensive comments on improving the thematic research programs. Among many useful comments, they cautioned that the network had not worked until then on several topics

[72] Daniel Chudnovsky and Lydia Makhubu 1996. Evaluation of the African Technology Policy Studies Network, IDRC, Nairobi, August 1996.
[73] The 1998 Strategic Plan for Phase III says the "suggestions (from the 1996 evaluation) have been internalized by the network. Moreover, through its distinguished Board, ATPS undertakes internal reviews constantly. Such reviews have led to the new policy on strengthening and redirection of the National Chapters, among others. The Board has commissioned another external evaluation."
[74] See Grant Application to the IDRC, ATPS Phase III, 1997–1999, August 1998; and ATPS (1997). A Strategic Framework for ATPS in the Next Decade, October, 1997.
[75] ATPS Phase IV (2000–2003) grant proposal, page 28. The document also states "through its distinguished Board, ATPS undertakes internal reviews constantly."
[76] Clark and Mugabe, 2002.
[77] Clark and Mugabe (2002), pages 3–5.

(such as ICT, biotechnology, and health technology policy) where there were several other programs in Africa that needed to be taken into account. Beyond undertaking organizational and activity reviews, the network would need to bring in additional expertise that was lacking.[78] They commented positively on ATPS plans for "producing a quarterly newsletter" that would highlight activities of the network, and that ATPS "is starting to serve as a vehicle for announcements, including job opportunities, consultancies."[79]

96. Finally, Clark and Mugabe made several important recommendations on governance and organization of the network. They quote the memorandum of association establishing ATPS as the legal entity that provided specific provisions for the Board and its operations. The document quotes extensively from the legal charter on the size, composition, and tasks of the Board members. They note the provisions for an annual general meeting, nominations of Board members by all members, the balance required in the Board composition between African members and experts and international experts on research and management of science and technology policy, and the minimum number of donor representatives. They also state that the criteria laid down in the articles of incorporation, provide the ATPS Network with a total of nine Board members (five residents of Africa, two international experts, and two donor representatives).[80] They also recommended stronger efforts at resource mobilization, which should include a written strategy and action plan that was developed jointly with active participation of the Board and the national chapters, and the need for a special Board Committee.[81] Clarke and Mugabe also note the important transition underway, from individual national focal points to national chapters and coordinators, comment on the needs for capacity building and for more resources, and note that the ATPS Secretariat was aware of these needs.

[78] Clark and Mugabe (2002), pages 16–20.
[79] Clark and Mugabe (2002), page 22.
[80] Clark and Mugabe (2002), page 23.
[81] The ATPS Network Strategic Plans Phase IV, January 2000 – December 2003, page 31, had noted that such a subcommittee had been created and "the terms of reference of the committee are still being worked out."

Section 3. Main Findings

3.1 Introduction

97. This chapter is organized like the previous one to allow easy comparison between the plans and the achievements of the independent ATPS Network. Comparisons are made both against the targets established in strategy documents, and against the previous ATPS Secretariat to determine the evolution of the organization before and after independence. The key activities under the four main goals of the ATPS network are reviewed, and the observations are aggregated to make judgments on appropriateness and relevance, effectiveness, efficiency, and sustainability.

98. The immediate outputs of the ATPS network for the research objective are the grants made for research, the number of researchers involved in network activities, the studies undertaken, and the further outputs of the research in the form of working papers, research papers, and special papers. These should include studies on science and technology policy in Africa. Beyond the raw numbers, especially for research and knowledge products, quality must also be assessed. Quality is ideally judged through peer-reviewed publications such as journal articles, citations, and use by others. In the case of ATPS, it should also include the outputs designated as Research Papers, which undergo a peer-review process.

99. Another important output of a network such as ATPS, which shades into outcomes, is capacity building. Capacity building can happen at the level of individual capacity in the network — improved ability to write research proposals, undertake research, conduct analysis, and prepare final reports for publication. Ideally, there should be improved skills in policy analysis with the ability to analyze development needs and to make recommendations for policymakers — people who can design and implement policies and programs, raise resources, and deliver these services. Capacity building can also occur at an organizational level with the retention and build-up of sufficient skilled resources of groups of individuals for a specific purpose who are working with common objectives, mechanisms, procedures, and resources. Capacity building at the institutional level can include changes in the ways research and policy work is undertaken and used as well as improved resource-allocation frameworks. All levels of capacity are considered to constitute the desired outcomes and impacts.

100. The outcomes of the research objective include the use of improved knowledge, policy recommendations, trained researchers, and other results of the interventions. Outcomes of the same intervention could include the trained people training others. The nature and quantum of outputs and outcomes must also be judged with reference to the amount of resources available in total and on their allocations.

3.2 Research Support Programs

3.2.1 Research Awards

101. Competitive awards of individual research grants (Table 6) continued in 2002 (the awards made in 2001 were determined through selection processes in 2000 — before the new structure was established). For 2003, 23 researchers were selected from 38 final proposals, which were reviewed at the 2003 Annual Meeting held in Lesotho.[82] They were also listed in the ATPS Annual Report 2004 (pages 60–61) as “ATPS Grants issued in 2004.” However, the awardees never received their grants. For unstated

[82] ATPS Annual Report 2003, pages 61–62.

reasons, the individual and competitive grants to researchers, which had been one of the main features of the network, were effectively discontinued after 2002.

102. The 2004–2007 strategy document stated that ATPS would continue to support these competitive research grants because: they help align research activities more closely with the strategic plans of national chapters; allow ATPS to respond more effectively to topics and agendas of national concerns to researchers in the network; and build the capacity and skills required to do high-quality, analytical, and policy-relevant research within the countries. However, many stakeholders were unaware that research awards made in 2003 had not yet been funded, and that there were no plans to institute these competitive awards in 2004 — although they were part of the 4-year strategy and planning document. No notification of this change or explanation was found in the ATPS Annual Reports, the 2004–2007 Strategic Plan, or newsletters reviewed.

103. With no further announcements, either about the past or the future, at some point in 2004 or 2005, a new set of nine awards, restricted to the water and environment theme,[83] was made. The nature of the competition and awards, however, as well as the research program on "water and environment" is unclear and is discussed further under thematic research.

Table 6: Competitive research awards 2001–2007.

Year	Awards	Notes
2001	11	Before the new organization was registered.
2002	16	—
2003	23	US$200,000 budgeted. Not awarded.
2004	None	The 23 awards above are reported in the December 2004 Annual Report as grants issued.
2005	9	These 9 awards are described and listed in the Annual Report as being considered for grants at the end of 2004. But are listed in grants made in 2004. Limited to water and environment.
2006	None	—
2007	None	—

Source: ATPS Annual Reports and ATPS website.

104. The discontinuance of the competitive research grants, which had been a core feature of ATPS, was mentioned by almost all National Coordinators and other researchers who met with the evaluators. They felt this was a major development that had negative impacts on the national chapters because the competitive research grants program had provided a core set of regular activities around which the chapters and the network had been organized.

3.2.2 Thematic Research

105. The key ATPS themes on which research was to be carried out with greater thematic coherence were listed for 2000–2003 in the planning documents as:

- Technology policy effects on the use of local raw materials and indigenous technologies.

[83] The words "water and environment" were not found in the ATPS Phase V Strategic Plan, 2004–2007. Yet in the 2004 ATPS Annual Conference and Workshop Addis Ababa, Ethiopia, the entire conference was titled "Science, Technology, Water and Environment."

- Foreign direct investment and technology transfer.
- WTO issues as they relate to technology policy in Africa.
- Globalization.
- Biotechnology.
- Health technology policy.
- Strengthening national ICT policy in Africa: governance, equity and institutional issues.

106. The ATPS strategy document prepared in 2003 (for 2004–2007), does not mention any achievements under any of the thematic research. It does, however, list three principal achievements before 2004 — the work done by the Tanzanian chapter on linking S&T investments and policies in the country PRSP; two training programs for legislators in Lesotho and Nigeria; and the activities organized under the "Africa Science Revival" day. The new strategy document for 2008–2011 states that during "2004–2007, ATPS has grown from having a single thematic research program, Strengthening ICT Policy in Africa, to having four thematic research programs, and a collaborative project funded by the EU Framework VI. These are Water and Environment, Health Technology Policy, ICT Knowledge for Development, a Youth Program, and a specific support action project for integrated trans-boundary river management policy development in Kenya and Tanzania. More recently, ATPS has participated in four new proposals submitted to the EU Framework VII."[84]

Strengthening National ICT Policy in Africa: Governance, Equity and Institutional Issues — Work on this thematic topic began in 2001. The proposal required over one year for development. ATPS commissioned a Framework Paper together with a research agenda from a senior academic based in South Africa in 2001. This was reviewed by the Ford Foundation and the ATPS National Coordinators at the NCST, Uganda, and NISER, Nigeria. It was then presented at the annual conference of ATPS held in Nairobi, 29 October – 3 November 2001, where additional comments were provided by ATPS participants, Board members, selected resource persons, and IDRC staff. It was decided that country case studies would be undertaken in 12 countries — Botswana, Burundi, Democratic Republic of Congo, Ghana, Kenya, Morocco, Nigeria, Rwanda, Tanzania, South Africa, Senegal, and Uganda. Funds were provided by three donors for additional resource persons and for one progress and one dissemination workshop. IDRC and Ford Foundation contributed US$150,000 each and the OPEC Fund provided US$50,000, for a total budget of US$350,000. Work began in April 2002 and was completed in October 2004.

107. According to ATPS documents, 12 grants were given to the country research organizations (except in South Africa where it was given to the lead researcher).[85] The original framework document was published in 2003 as Special Paper Number 13. A Technopolicy Brief Number 15 on "Formulation of National ICT Policy" with lessons from the study was published in 2007. At the 2003 Annual Meeting, a Ugandan study on this theme was discussed. The 2004 Annual Report stated "the final dissemination workshop for the project was held in July 2004 in Nairobi. The 12 country teams presented their draft final reports at the workshop." The summary, prepared by the coordinator of the thematic research, provides an interesting overview of lessons learnt. No other documents, including the country studies, related to this project appear to have been published by ATPS, or were available for review, neither was the evaluation component (that was funded as a part of the research) available.[86] Before the final

[84] ATPS Phase VI Strategic Plan 2008–2011, December 2007, page 8.
[85] Democratic Republic of Congo was replaced by Ethiopia.
[86] The ATPS Secretariat reports (ATPS Phase VI Strategic Plan 2008–2011, December 2007), 13 and not 12 studies and "the Project Coordinator is currently working with the country teams to publish the research results in special issues of

revision of the evaluation report (on 18 April), the complete research report was sent to the evaluators by IDRC.[87] A very quick review of the 1258 page, 12-country study provides some interesting information on the status and policy issues in the countries. As would be expected the chapters vary considerably in their quality. The absence of dissemination of the outputs of the first research effort undertaken under the thematic programs reduces the value of this output and prevented knowledge transfer and capacity building of members who did not participate directly in the study.

Biotechnology in Africa (2004–2007) — According to the 2004 Annual Report, ATPS had "initiated a carefully targeted project on biotechnology in sub-Saharan Africa to support the regional NEPAD–IFPRI African Policy Dialogues on Biotechnology, and to provide guidance to key nations in developing biotechnology and biosafety guidelines and regulations."

108. In October 2004, ATPS began work on this theme to support the regional NEPAD–IFPRI African Policy Dialogues. Under the program, it undertook a 1-week training and sensitization workshop in Freetown, Sierra Leone (7–11 March 2005). The aim was to discuss strategies for integrating science, technology, and innovation (STI) into the planning, development, and reconstruction of post-war Sierra Leone. Another policy roundtable discussion was held with Kenyan parliamentarians on 8 June 2005 to discuss biotechnology policy issues in Kenya, focusing mainly on the contents of the proposed biotechnology bill and policy that was before the Kenyan Parliament. A third discussion session was organized with the annual network meeting in Maputo in November 2005. Some support for these activities was provided by the Technical Center for Agriculture and Rural Development (CTA), Netherlands. These workshops provide good examples of how ATPS can work on influencing policy and applications for new technologies in Africa by combining research, capacity building, dissemination, and policy dialogue.

109. In February 2006, ATPS joined with the International Centre for Trade and Sustainable Development (ICTSD) to organize a regional dialogue in Jinja, Uganda, in collaboration with the African Union and NEPAD. This workshop launched a research study, carried out with the funds provided by IDRC and DGIS, Netherlands, that included 10 case studies on the priorities and key issues in Eastern Africa. "Biotechnology: Eastern African Perspectives on Sustainable Development and Trade Policy" contains seven papers and was jointly published by ATPS and ICTSD in 2007. These papers provide a useful compendium of issues, experiences, and policies in the region. This last exercise is an excellent example of a cooperative activity organized by ATPS, in collaboration with several key organizations, to produce policy-relevant research, knowledge of potential applications, and policy dialogue and dissemination.

110. Although the contents of the ATPS–ICTSD book are available, no judgment can be made on the value of the earlier workshops because of a lack of documentation. The publications could also be highlighted on the website with downloadable copies.

Health Technology Policy (2000–2007) — The program on Health Technology Policy is another important thematic research area selected by ATPS. It was selected in the 2000–2003 strategic plan as a priority, "given the HIV/AIDS pandemic in Africa and the continued high incidence of such tropical

Telecommunications Policy (Elsevier Science Publication and leading journal in Telecommunications infrastructure policy). A number of the researchers have now moved on to leadership positions in the ICT area in their countries."

[87] Strengthening National Information and Communication Technology Policy in Africa: Governance, Equity and Institutional Issues, Final Report, March 2005.

diseases as Malaria, ATPS member countries have identified research on health technology policy as critical to the generation of new knowledge to manage the crises."[88] The detailed statement of issues, importance, and approach ended with the note that a "concept paper that would fully articulate this area of research" was being developed.

111. The work appeared to progress with a series of papers presented at the 2005 Annual Conference and Workshop in Kenya (November–December 2005) held in cooperation with UNU-INTECH.[89] Over 15 presentations were made on a wide range of health issues in Africa. Then 18 Chapter Coordinators made presentations on their perceptions of key issues in health in their countries. There was also a research methodology workshop. There does not appear to have been any concept paper of the issues, research priorities, the possible research methodologies, or any announcement of a research team or thematic coordinator(s). Nevertheless, a proposal for thematic research on "Review of Health Programmes and Institutions" appeared, that described four goals: (1) to strengthen policies for healthcare technology management and assessment, which has reviews of existing health-policy documents and institutions; (2) to review national AIDS coordinating institutions and the role of ICTs and HIV-related technologies; (3) to produce local case studies on behavioural changes, combined with interventions and meetings, youth congresses to target youth, and the formation of science clubs; and (4) to organize a regional research project on pyrethrum and other indigenous solutions for malaria control. The proposal supported several meetings, dissemination activities, training workshops, conferences, the ATPS annual conference, national networks, and a separate website and database. There was also provision for two annual mid-term reviews and a final program evaluation. This project was funded entirely by The Royal Dutch Government for a little over US$1 million for 2005–2008.[90]

112. The ATPS submission to the evaluation team[91] reports: "During the first year of the program, ATPS realised that the National Systems of Innovation (NIS) framework and approach are very new concepts to the country teams. ATPS has therefore devoted some time to ensuring continued capacity development in this area for the selected country teams prior to launching the research case studies." A workshop was therefore held in Kenya (24–27 April 2007), where network study team members from nine countries (Anglophone and Francophone) participated. Progress was made with respect to conceptualization of the research case studies, and research proposals were prepared for country case studies in seven (Benin, Côte d'Ivoire, Nigeria, South Africa, Swaziland, Tanzania, and Uganda) of the nine selected countries. Following reviews, four case studies were commissioned and the other three are under review. A progress workshop was held in November 2007. There is a list of four papers and the 2005 conference as the research outputs.

113. ATPS reports that "progress has also been made through a number of activities, including youth interventions for capacity building both on a youth-to-youth basis and at national and regional youth fora organised under the auspices of the ATPS National Coordinators in Ghana, Kenya, Lesotho, Nigeria, Malawi, Sierra Leone and Uganda." It lists and describes the Africa-wide youth congress "African Youth Forum on Science and Technology (AYFST)" in Uganda in July 2007, and AYFST activities in Ghana, Kenya, Lesotho, Malawi, Nigeria, Sierra Leone, and Uganda. Other activities include: ATPS, together with Maximizing Facts on HIV/AIDS Youth Group (MAXFACTA), holding a

[88] ATPS Phase IV (2000–2003) Strategic Plan, page 27.
[89] As of 1 January 2006, UNU-MERIT.
[90] The research proposal and current status of work in this area was provided by ATPS Secretariat when requested by the evaluators on 15 February 2008.
[91] ATPS, 2008. ATPS Programme on Strengthening Health Technology Policy in Africa, June 2005 – May 2008.

1-day youth forum on 1 April 2006 at a youth centre in Nairobi; sponsorship of the Youth Agency for Development of Science, Technology and Innovation (YADSTI); and assistance to the Science and Technology Club of the University of Nairobi, in March 2007, on the theme "Celebrating Innovations and Entrepreneurship in Science and Technology for Development."

114. The recognition in 2006 that the innovation systems framework and approach are "new concepts to the country teams," followed by a training workshop in 2007, and finally for the current status to be "four case studies commissioned" and "three under review," suggests that knowledge about network research capacity had been low (see Clark and Mugabe 2002). This led to difficulties in execution and low outputs of indifferent quality. A group of Francophone coordinators indicated they had submitted a joint proposal for a study on HIV/AIDS and traditional medicine, but had never heard back from the Secretariat despite several follow-ups. Although the quality of this proposal is not known, the lack of communications between chapters and local researchers, and research coordinators and the Secretariat, is a concern.

Water and Environment (2004–2007) — A major thematic program by ATPS on water and environment was begun near the end of 2004,[92] and a 2-day workshop was held in Addis Ababa on 29–30 November 2004.

115. The work supported in this area can be categorized under three groups. In one group are the nine research awards made in 2004.[93] Seven of the nine studies have been completed. Each represents a considerable amount of work for grants ranging from US$10,000 to US$18,000. However, they do not provide any coherent thematic framework, and do not seem to have obvious links. In addition, they do not show much recognition of earlier research and dissemination in the areas being studied — for example, studies on heavy metal contamination of Lake Naivasha and Rainwater Harvesting, both areas of research, training, and action by many governments and donor-funded work for many years.

116. Three publications from the Special Paper Series are discussed. The first[94] provides an interesting discussion on conflicts over water — one at the Nile Basin level and the other in Tanzania at a more local level. The paper then suggests, tentatively, that solutions will have to rely on knowledge, technology, and institutions. The latest reference used was for web access dated November 2004 with the comment: "This paper — which is still in draft form" and "has sketched out a broad range of relevant issues. A full conclusion will be added later, based on conference discussions." This suggests the paper was prepared on request by the ATPS Secretariat for discussions at the 2004 November–December Annual Conference where the theme was introduced. However, no further work was done on sketching out how policies in STI can contribute to solutions or on suggesting the research that would be required. This report was published 2 years later with no further work.

[92] From ATPS Annual Report, 2004, pages 17–28: "ATPS has commissioned the following research studies on water and environment in nine African countries," and Summary Report on Grants Funded, in the same report.
[93] These include: Assessment of Rural Water Supply Management in Selected Areas of Oyo State in Nigeria; Policy Gaps Analysis of Community Water and Sanitation in Ghana; Sustainable Management of Wetlands in Benin; Reducing Pollution in Lesotho; Small Scale Rainwater Harvesting in Malawi; Management of Lake Water Resources in Ethiopia; Assessment of Heavy Metals in Sediments from Lake Naivasha in Kenya; Willingness to Adopt Ecological Sanitation as a Water and Environmental Conservation Technology in Peri-Urban Communities of Kampala, Uganda; and in "Développement d'un procédé de zone humide simulée planté avec Amaranthaceae, Capparidaceae, Tiliaceae pour le traitement des eaux usées domestiques" in Côte d'Ivoire.
[94] Water Management and Conflicts in Africa: The Role of Knowledge and Technology, ATPS Special Paper Series No. 26, 2006.

117. The abstract of the second example, Integrated Value Mapping for Sustainable River Basin Management,[95] states: "Recent studies in social psychology and in environmental ethics suggest alternative models of environmental behaviour that challenge the rational expectation assumptions of CBA (Cost Benefit Analysis). The paper integrates some of the alternative models and tests (them)... in explaining human dispositions to pay for biodiversity restoration using logistic models. Primary data were collected from face-to-face interviews of a stratified random sample of 1012 individuals across Scotland. The results provide empirical evidence of the long-standing concerns for using single domain models to aid environmental decision-making, and illustrate the case for considering integrated value mapping alternatives." Although the title suggests some possible applications in Africa, this is not explored. It is not clear why ATPS chose to reprint this paper.

118. Finally, a third paper, "Wastewater and Irrigated Agriculture Lessons Learned and Possible Applications in Africa,"[96] was prepared by researchers from Wageningen University, the Netherlands, who state they are working with many organizations and discussing efficient water use initiatives at various EU research projects. The report raises the issue of potential for wastewater irrigation in Africa, with basic concepts and definitions, a rapid overview of recent developments, and "potential African research partners for a project in preparation in The Netherlands." It was prepared as a handout for the two-day Conference on Science, Technology, Water and Environmental Management held in Addis Ababa, Ethiopia, 29 November – 1 December 2004, organized by ATPS. The 10-page submission ends with the question of possible applications of wastewater irrigation systems to Africa, and this remained an open question. The Wageningen Institute was searching for funding for a project on Wastewater Treatment and Use in Irrigated Agriculture and sought partners.

119. The website information and comments from several ATPS researchers in the country section volumes, suggest that work in this area continues to be undertaken in a non-participatory manner. It would be useful to all stakeholders to provide a full description of the thematic research programs, the names of the thematic leader(s), and names of all individual researchers along with their electronic contact information. Network members would then know who is doing the research and who to contact for more information or possible partnerships.

3.3 Dissemination of Research Results

120. The newly independent ATPS planned a strengthened effort to use workshops, seminars, publications, journals, policy dialogue, advisory services, video, films, and radio and print media to disseminate research results widely, and to increase links between researchers and with policymakers and productive sectors.

3.3.1 Publications

121. The new ATPS Network began the first year with a vigorous program of publications.[97] It continued the practice of producing Working Papers and Special Papers and added two new publications: Research Papers and Technopolicy Briefs. The dissemination plan was to publish annually 10–15 outstanding research studies from the research awards as part of its Working Paper and Research Paper Series, and 7–10 Technopolicy Briefs. The ATPS Phase IV (2000–2003) grant proposal target for

[95] ATPS, Special Paper Series 22.
[96] ATPS, Special Paper Series 23.
[97] It was noted in one ATPS report that over about the first 2 years, the new ATPS Network published 27 documents, almost the same numbers as in the previous 6 years.

2003 was to "see the publication of approximately 50 research studies in various formats, as well as eight issues of the ATPS Newsletter," page 20. This was partially met in 2006. The numbers of each publication type are summarized in Table 7.

Table 7. ATPS publication outputs 2002–2007.[98]

	Working Papers	Research Papers	Special Papers	Technopolicy Briefs
Legacy	31	0	2	1
2002	4	2	11	5
2003	4	0	3	2
2004	1	0	2	—
2005	2	0	2	4
2006	1	1	9	2
2007 (to June)	—	—	3	1
Total 2002–2007	14	3 (8)	30	13

Source: Technical Reports and Annual Reports of ATPS; p. 19 Appendix 5, Report by ATPS, to Sida/SAREC 2005, and ATPS reports for 2006 and 2007.

122. Table 7 shows there was a surge in publications in 2002, the first year of the new network. It is reasonable to assume that most of those had been in the pipeline and covered work for which funds had been allocated in earlier years. If the outputs of 2002 are discounted as due to past efforts, the numbers of publications is lower. Given the importance of publications as a primary output of any research network, and the priority placed on these in the ATPS strategy documents, it is important to review these in greater detail. The research completion rates have been relatively good.[99] Out of the 83 awards made until 1999, reports were submitted for 68 grants, 10 final reports remain outstanding, and 5 awards were terminated. Of the 42 awards made between 2000 and 2002, 23 final reports and 19 interim reports were received. This suggests there are 91 outputs qualifying for publication as Working Papers.

3.3.2 Working Papers and Research Papers

123. The Working Papers are the outputs of research supported by ATPS, either as individual research grants or from collaborative regional projects. These are not peer reviewed, but provide a report on the completion of research. The ATPS Secretariat used to support efforts to improve these research reports for publication. There have been 125 research awards by ATPS (134 including the awards in water) and, of these, 91 outputs have been submitted. Only 45 research outputs are available as Working Papers (about 50% of the completed work and 35% of the awards).[100]

124. Analysis of the grant cycle shows that after a grant is made in a given year (year one), the funds are released the following year. Most studies average about 18–30 months; therefore, a report could be ready in 24–36 months (year three), and published normally in year 4 or 5. Making allowance for that, the new ATPS should have taken over ongoing awards from 1998 that should have been published after

[98] On the website, a few more Working Papers are listed but are not available. In the Research Paper series, eight are under preparation under the water and environment theme, and are provided in parentheses in the total. Of the nine special papers in 2006, five are on water.

[99] Analysis based on Secretariat-submitted document on the status of each award made by ATPS.

[100] An analysis of the Working Paper publications does not show matching awards for 19 of these 45 papers; for the remaining 26 there is a match with the author name and the topic of the publication and the research award. This suggests that not all Working Papers are from the research awards.

2001. If these assumptions are valid, then the publication output is poorer. The ATPS network, which supported 96 grants between 1997 and 2003, produced 14 working papers after 2002 (Table 7). The evaluators had to carefully check the names and titles of the working papers against the awards to arrive at the numbers above and this was not made easier given a number of working papers without corresponding awards. It would be useful to include a note in each publication to state clearly the nature of the publication, the research award or other connection with ATPS activity, and the intended use of the publication.

125. The quality of research is another important indicator of the outputs. The network added the Research Papers series, which are also based on the research grants but subject to peer review. Publications in this series are reviewed by three external reviewers and must receive a positive review from two reviewers. Out of 125 awards, three have been published in this peer-reviewed series.

3.3.3 Special Papers and Technopolicy Briefs[101]

126. The new ATPS network increased the number of titles in these two series. There was a surge in publications in 2002 — the first year of the new network. The number of publications has since declined. The Special Papers have often been the precursors to ATPS thematic research. A number of outputs from the thematic research are also published in this series. For example, numbers 1, 2, and 4 (2002) discuss issues concerned with globalization, technology and Africa. Numbers 8, 9, 10, and 11 (2002) similarly deal with some of the issues arising from, or the potentials for, using ICTs in African development. These papers were presented at the 2002 annual conference as a part of the exercise for defining thematic research in ICT policy.[102] A few of these papers were outputs of network research, but most were commissioned by ATPS. It would be useful for ATPS to indicate the origin of these publications and to list them in its Annual Report.

127. The Technopolicy Briefs[103] are innovative, and have received positive reaction from some users. These are commissioned papers, written by experts. It is difficult to determine their value in enhancing the research and capacity-building dimensions of the network. A citation search undertaken in “Google Scholar” yielded almost no citations for the working papers, and only one or two citations for half of the publications in the two series.

3.3.4 Newsletters and Annual Reports

128. ATPS began 2001 with a second newsletter (number 10). Only one newsletter, which combined two 6-monthly numbers 11 and 12, was published in 2002. ATPS published one newsletter in 2003 (number 14), 2004 (number 15), and 2005(number 18).[104] In 2006, numbers 19 and 20 were published, thus returning to the publication of two issues for the year. The actual numbers of newsletters is not a critical measure of either success or failure at communication and information sharing. In fact, with the creation of the website, it could be argued that a physical newsletter may have outlived its purpose. However, the erratic publication record, with no comment on missing volumes, suggests a lack of care in communications and information sharing.

[101] A list of the Special Papers and Technopolicy Briefs is available in the Annex.
[102] Funded by IDRC, Ford Foundation, and OPEC funds for research undertaken between 2004 and 2005.
[103] Three are missing from the website, and all four produced in 2005 are by the Executive Director.
[104] The statement by the Board of activities for 2005 reports two newsletters, but it appears to be a mistake. It is presumed that numbers 13, 16, and 17 had been planned but could not be produced. No newsletters were published in 2007.

3.3.5 Website

129. ATPS established a website (www.atpsnet.org) in 2002. One of its goals was to post all publications to provide wider access. Another goal was to host discussion groups to exchange information on science and technology issues between ATPS network members and the public.

130. The ATPS website was visited extensively on several occasions during the evaluation. The first visits were in July 2007, followed by extensive visits in September 2007 to collect background information for the evaluation.

131. Several problems were noted and reported to the ATPS communications staff. Several links, such as the site map, did not work. Annual Reports were available for only 2002, 2004, and 2005. No 6-monthly updates were available. The information on seminars and roundtables was variable. The link to the publications page worked well, but did not always link to the actual publications. In the page listing the Working Papers, although 43 were listed, only 19 papers were available for download.[105] No Research Papers were listed or available. Only one Special Paper (number 6) was not available, out of 20 listed. However, another 10 (see Table 7) were neither listed nor available. The Technopolicy Brief Series was almost complete with 12 out of 13 listed and available to viewers. No information was posted on any national chapter or their activities.

132. The website provides little information on awards, ongoing work, or new funding opportunities. It also provides no resource for electronic collaboration by the dispersed research network. Therefore, there is little reason for network researchers to use the potential of the website to support the network. This lack of use is supported by the fact that only 6 of 72 respondents to the electronic survey said that they learnt about the survey from the ATPS website.[106] These observations suggest that the website has served the core purposes poorly, beyond staking a presence on the Internet.

133. The revamping of the website in late 2007 is a welcome initiative. After this revision, a considerable amount of new content has been added and most of the broken links have been fixed. It now provides a more complete set of documents related to research outputs.

134. Overall, the newsletters and the website have not been used to maintain ongoing, current, or relevant communications with network members, or to share information such as ongoing research, names of consultants, researchers, and theme leaders. The Secretariat offered to "provide state-of-the-art literature to National Coordinators, in the form of books, journals and/or journal articles." This does not appear to have happened based on the responses and feedback from network members who participated in the electronic survey. The newsletter and website have not become effective tools of communications for announcing upcoming work and consultancies and allowing larger groups of dispersed network members to be aware of ongoing work and participate directly.

3.4 Other Outreach Activities

Scientific Revival Day — In the strategic plans for 2004–2007, ATPS listed among its three major achievements the Africa Science Development Day. ATPS declared the first event in Kenya in 2002 to be a successful component of an outreach strategy, and built on this with Africa Science Days in 2003 in Ghana, Ethiopia, Nigeria, Tanzania, and Uganda. In Ghana, the National Chapter, in close collaboration

[105] Downloads were not available for numbers 2, 3, 5, 8–21, 24, 28, 29, and 30; and numbers 7, 41, and 42 were not listed.
[106] Survey of ATPS and STI issues, question 13.

with the Council for Scientific and Industrial Research and the Ministry of Environment and Science, used the occasion to highlight scientific inputs that would allows local communities to resolve their problems on such issues as erosion control and crop diversification. This was followed in 2005 with a large meeting in Nairobi, and also events in Ghana, Nigeria, and Tanzania. In 2006, only the Ghana chapter followed this up.

135. This is an excellent example of an initiative that had important outreach elements, and raised awareness of STP issues in the countries where they were organized. Ideally, they might have been combined more closely with ATPS research and policy outputs to promote research dissemination and use.

African Youth Forum on Science & Technology (AYFST) — In 2005, ATPS began a workshop series under the title "African Youth Forum on Science and Technology (AYFST)." This had the key objectives of "awareness creation, capacity building, peer education and mentoring; information sharing and inclusion, and empowerment of the African youth in the area of STI research and policy decision making processes." ATPS stated that over 160 African youths from 21 African countries participated in youth congresses held in Kenya (2005) and Ghana (2006). This was followed by one in Uganda in July 2007.[107] The congresses focused on youth employment and youth leadership in HIV/AIDS prevention; food insecurity and health for sustainable development in Africa; and the role of youths in achieving the Millennium Development Goals in Africa. ATPS states that "these programmes have been very successful in creating awareness and sustaining interest amongst African youths in STI research and policy related issues in Africa, empowering the youth to participate actively in STI research, local interventions and social entrepreneurship programmes." Continued engagement and dialogue among the youths is enhanced through the AYFST website (http://www.ayfst.org). ATPS is convinced of the value of this conference series and plans to hold an "African Women in Science and Technology Forum (AWSTF)" to provide a "vehicle through which African women can express their ideas, contribute their expertise and participate in policy and decision making processes in Africa."

136. The lead technical evaluator met with a group of participants to the conferences in Uganda, reviewed the publications from the conferences, and visited the website. The youth participants from Uganda said that they had been energized by the workshop and were working to create a local Uganda Chapter of AYSFT. However, concern was expressed about the lack of any support from the ATPS Secretariat for follow up activities — except for detailed guidelines on naming the chapter and rules for the chapter. ATPS expects this activity to have outcomes of S&T research and policy advocacy, skills in S&T research, and project management, among many other desirable goals, by 2011.[108] From the discussions with the small sample of participants and the documents reviewed, it is not apparent how these goals are to be achieved and how these conferences help build research and policy capacity. These expensive conferences have some practical benefits, but lack relevance to the core mission of ATPS.

3.5 National workshops

137. National workshops have been a basic building block for the network. Many have originated as initiatives of the local chapter coordinators and members, and most of them have been undertaken at low cost.

[107] ATPS Phase VI Strategic Plan 2008–2011. The lead technical evaluator was scheduled to participate but this was not possible due to administrative difficulties.
[108] ATPS Phase VI Strategic Plan 2008–2011.

138. ATPS held two sensitization workshops for policymakers in Lesotho and Nigeria in 2003. The Lesotho workshop (June) was aimed at members of the Legislature, and the Abuja workshop (October) included "other policymakers, directors of S&T research institutions, and participants from the military establishment," as well as legislators. ATPS reports show that between one to three such events have been undertaken annually by national coordinators and chapters with some participation by the Secretariat and a number of others. These have often been of significance in convening a number of people and organizations interested and working in research, policy, or implementation of STP at the national level. Unfortunately, although many national chapters proposed and made plans for a number of activities, there has been little systematic support by the Secretariat.[109] The ad hoc nature of the support provided, together with the disappearance of the annual awards that had created an annual cycle of meetings related to research proposals, has contributed to the inactivity of many chapters.

3.6 Countries and National Chapters

139. ATPS states that during "2004–2007, five new chapters in Francophone Africa (Benin, Senegal, Mali, Côte d'Ivoire and Burkina Faso) and two chapters in southern Africa (Mozambique and South Africa) were established."[110] ATPS encouraged each chapter to be nationally registered, adopt a national constitution that has the ATPS network constitution in the preamble, have a bank account when registered, and create a list of members who form national committees.[111]

140. In 2002–2007, the Secretariat provided support to 15 country chapters[112] — a total of US$232,000 or an annual average of US$39,000 for all chapter activities. On average, this amounted to US$15,000 per chapter for the 6 years or US$2,500 per year per country supported. The actual amounts over the 6 years varied from US$4,000 to US$8,000 for Burkina Faso, Kenya, Malawi, Mali, Mozambique, and Swaziland. The highest amounts were allocated to Tanzania (US$44,000) and Uganda (US$34,000), but these two country chapters developed a special initiative to undertake joint research on innovations in clusters, which was funded by Sida (about US$18,000 each) as a specific allocation through the Secretariat. Without this special grant the amounts provided to the two countries would have been lower.

141. Four of the five new Francophone countries have received some support. No support has gone to Senegal. Of the four francophone chapters, Côte d'Ivoire and Mali received US$13,000 and US$7,000, respectively. Mali is reported by ERNWACA to be relatively well organized and to have official government recognition. The Secretariat reports that Côte d'Ivoire is very active and is a good example of building local capacity. Cameroon organized a University S&T week that kicked off the chapter, and has been involved in research on water and the environment.

142. No support has been provided to South Africa beyond the appointment of a national coordinator. The report on South Africa suggests a number of opportunities may have been missed by ATPS. Of the older established chapters, no support was provided to Sierra Leone, Zambia, and Gambia. The latter has remained inactive for many years.

143. The status of the national chapters varies. Of the 15 chapters with whom the evaluators had communication, 10 or 11 are registered as national organizations. Membership in the chapters, in these

[109] Very detailed strategic documents were prepared by some chapters and shown to the evaluators. There is little correspondence between plans and the support provided.
[110] ATPS Phase VI Strategic Plan 2008–2011, December 2007, page 8.
[111] ATPS Board Minutes, 4 November 2000.
[112] See Annex for details.

registered associations, is often quite fluid. The Ghana and Nigeria chapters appear to be the best organized, with lists of members (although membership dues are not always collected), annual meetings, governing councils, bank accounts, and audited statements of chapter income and expenses. Ghana is outstanding in having a clear rotation in its governing body with a system of elections. In all others, there is a known group of persons who have participated in ATPS activities or have an interest. In some, there have been more regular meetings, and in most countries meetings and activities have been irregular. The number of fully, or almost fully operational, chapters is between 10 and 12.

144. There are some useful examples of successful translation of practice between network countries. The ATPS lists its support for interventions in Poverty Reduction Strategy Papers (PRSP) at the country level as one of three outstanding achievements in 2002–2004. The ATPS–Tanzania chapter organized a roundtable in September 2002 on mainstreaming science and technology into the PRSP of Tanzania. This is an important issue for many countries dependent on aid resources, because PRSP documents and plans have become an important mechanism for national budget and external resource allocations. In Tanzania, as in most ATPS countries, the role of science and technology in poverty reduction did not feature explicitly. The intervention of ATPS–Tanzania was timely and successful in that the National Coordinator was appointed as a member of the PRSP–Tanzania task force.

145. The ATPS Secretariat recognized the value of this and asked all the other chapters to look at their country's PRSPs and to use similar workshops to influence the process in their respective countries. In Ghana, the chapter organized a policy workshop on budgetary allocation for S&T that targeted senior officials from the national planning commission. ATPS–Ghana was subsequently invited to make presentations on S&T and poverty reduction strategy, and the final version of the Ghana PRSP was revised to include a substantial section on the role of S&T in Ghana's poverty reduction strategy. An ongoing example of positive sharing between network countries is provided by the joint work in Tanzania and Uganda on industrial clusters and innovation supported by Sida.

146. Overall, a number of the stronger chapters have developed coherent plans of work and proposals for Secretariat support. A number of national workshops have been a basic building block for the network. Many of them have originated at the initiative of the local chapter coordinators and members, and most of them have been undertaken with small allocations of resources. A major anchor to the work of the chapters had been the competitive research awards and the resultant cycle of announcements, publicity, and workshops that was tied to the awards, and to the research. The disappearance of the awards (discussed earlier), combined with ad hoc responses from the Secretariat, were noted by most coordinators as the most negative development for implementing systematic work plans at the national level. Some national coordinators have been paid a small honorarium in some years, but not in others. Some coordinators have not received any honoraria. Many national coordinators work under a lot of other regular and ongoing demands and pressures. Nonetheless, they have contributed to the network in spite of these difficulties. This indicates that country needs are not being met. In general, the national stakeholders who were consulted felt the network Secretariat had weak links to national research and users.

3.7 Sustainability: Management, Resources, and Governance

147. ATPS strategy documents identify that the long-term sustainability of the organization depends on its articulation with national members, S&T policy institutions, and other stakeholders through its outputs and activities; sustained through governance mechanisms ensuring feedback mechanisms, transparency and accountability; and a focus on raising funds through a diverse group of donors.

3.7.1 Resource Mobilization

148. The achievements are mixed. Although total resources were estimated until 2003 to be over US$10.5 million, actual receipts were about US$3.5 million.[113] Under the circumstances, it might be expected that ATPS would lower its goals for the next 4 years, but instead the planning figure was raised to US$11.6 million.[114] The resources available fell short of the goals, and the actual amount received between 2004 and 2007 was US$4.39 million.

149. Table 8 shows the total funds received and the donor partners who have supported ATPS during 2002–2007. The total funds received for the 6 years was US$6.9 million or an average of a little over US$1.1 million annually, as compared with the goal of US$2.9 million per year in Phase V. Although the ATPS Network fell short (reaching 38%) of its planned goals, it was able to raise on average about 20% more resources annually during 2002–2007 than during its earlier phase (about US$900,000).

Table 8: Donors and funds for ATPS Network 2002–2007.

Number	Name	Period	Total (2002–2007)	Percentage
1	Government of Netherlands	02–07	$3,084,649	45
2	International Development Research Centre	02–06	$1,077,613	16
3	Rockefeller Foundation	02–06	$ 694,035	10
4	Sida/SAREC	05–07	$ 628,457	9
5	African Development Bank	04,06	$ 256,496	4
6	Federal Republic of Nigeria, Ministry of Science and Technology	02,05,07	$ 218,000	3
7	CTA (Technical Centre for Agriculture)	04–05	$ 183,649	3
8	Carnegie Corporation	02	$ 153,761	2
9	Ford Foundation	02–03	$ 150,000	2
	Sub-total		$ 6,435,739	94
	Total Income all sources		$ 6,886,328	100
	Annual Average (rounded)		$1,150,000	

Source: Audited Financial Statements for 2002–2006 and submission by Secretariat for 2007 to May. For annual figures of contributions see Table 5.4 Annex 5.

150. Although unable to raise the planned resources of US$10 million in 2000–2004, and of US$12 million in 2004–2007, the ATPS Strategy Document for 2008–2011 has raised its goals higher. ATPS has planned for a total budget of over US$19 million, almost three times what it received in the previous period.

151. The performance of ATPS toward the goals of sustainability in fund raising and donor diversification is shown in Table 8. ATPS has increased the number of major donors from three before independence to nine. ATPS has also been able to get contributions from at least one African country (Nigeria). Although it amounts to only 3% of the total, national support has significance beyond the

[113] This figure is arrived at by taking the cash on hand of US$1.2 million in 2001 and adding the new funds in 2002, 2003, and 2004.
[114] ATPS Phase V Strategy Document 2004–2007, Table 1, Resource Allocation.

amount.[115] If the smaller sums contributed by the OPEC Fund, COMESA, UNESCO, World Bank (Infodev), NEPAD, and the new AU collaborative project are counted as separate donors, the number exceeds 15. However, most of these are small contracts for specific tasks, often one workshop or one report, and these contributions together amount to 7% of all funds received.

152. ATPS remains reliant on only two new and two long-time supporters for most of its funds, and none of the other major donors anticipated in the plans have provided support. The Government of the Netherlands has supported the independent ATPS to a considerable extent, and its contributions are larger than the combined contributions of the next three donors. ATPS has made some gains toward sustainability; however, there have been a number of setbacks toward this goal.

3.7.2 Processes and Management

153. The outputs[116] of a network such as ATPS depend primarily on three complementary sets of resources: the financial resources available to it for achieving goals and objectives; the people to achieve these; and the systems and processes including governance for the management of these resources.

Table 9. African Technology Policy Studies Network (ATPS) expenditures 2002–2006.

	Total Expenditures US$						
	2002 (15 months)	2003	2004	2005	2006	Total	Average
Personnel costs	272,607	278,723	322,502	406,037	369,695	1,649,564	314,203
Office, communications, honoraria and supplies	157,751	165,617	120,681	182,487	115,352	741,888	141,312
Total establishment costs	430,358	444,340	443,183	588,524	485,047	2,391,452	455,515

Source: ATPS audited statements.

154. The tables in Annex 5 provide an overall picture of the allocation of resources by the ATPS Network during 2002–2006. There was rapid growth in staff size, from 3 to 10 in 2002,[117] and then to 12 in 2005, and 14 in 2007.

155. In addition, there was a rapid rise in all staff salaries, with the salary budget growing by a factor of four from 2001 to 2005. This meant that personnel costs rose from 15% of total available resources to almost 30%. The office expenditures for the Secretariat (Table 9) show that the average annual expenses for maintaining the Secretariat come to over 40% of the total resources, without taking into account Secretariat travel. This result belies the efforts that were promised in the strategic plans to maintain a "lean and efficient" Secretariat and to "improve the program to administration ratios from 81:19 at the time of preparing the strategic plan 2000–2004".[118] In fact, in 2004, the ratio of salaries to total

[115] This is likely due to one of the eminent members of the Board, who became the Minister of Science and Technology for Nigeria.
[116] The potential outcomes and longer-term impacts depend in addition on the behaviour and performance of multiple other agents — research organizations, donors, ministries, and governments.
[117] The ATPS grant request to IDRC provided a budget for the network "coordination expenses," (composed of "secretariat staff salaries and office running expenses") to be CAD$60,000 for June 2002 to May 2003. Phase IV Strategic Plan and Grant Document submission to IDRC, No. 101339.
[118] The evaluation concludes that this goal was unrealistic given that IDRC contributed many services which were not directly charged to the Secretariat budget.

resources reached 62% (and Secretariat costs not including travel was 70%), leaving very little for program activities.[119]

156. All grants to individuals and organizations went down to less than 15% from about 30% earlier. This includes all research awards, thematic research, and national chapter activities — the three key outputs that ATPS aimed to achieve. Expenditures on individual research awards almost tripled from 2002 to 2003 to over US$367,000, but these awards were never made. After 2003, no further awards were made to individuals and only US$158,000 was provided to all organizations (an average of US$53,000 per year).

157. Travel, accommodations, conferences, and meetings accounted for more than 32% of the total expenditures. This is only partly accounted for by the high costs of one annual meeting. It also results from the increasing tendency to hold many events that serve a brokerage or catalytic role.

158. About US$45,000 was spent annually on consultancies for experts, which may represent the preparation of overview documents for thematic research and some Special Papers and Technopolicy Briefs.[120]

159. ATPS does not break down these figures further by purpose (in the statements available); therefore, further analysis cannot be done. This underlines the importance of useful and relevant monitoring and reporting systems. This broad analysis presents a picture of rapidly growing expenses for maintaining the Secretariat and for a range of meetings and conferences. The resources allocated for research and for chapters have become small fraction of the expenditures. This helps explain the low outputs in research and publications and the ad hoc support provided to the national activities.

160. ATPS started as a demand-driven organization. The demand came primarily from researchers (and not their organizations), who submitted research proposals within broad themes of work. The themes were set by the Steering Committee, and the proposals were judged nationally and then at the network level, through different mechanisms of peer review. The role of the management and Secretariat was largely "supportive" of this process of managing resources, with considerable oversight and small degrees of freedom. With independence, the focus on fund-raising, and the shift to "thematic" research, the topics for research became specified in detail by the Secretariat, and the role of the Secretariat became predominant. The use of peer-review mechanisms and open competitive processes for making grants suffered increasingly.

161. The ATPS Network Secretariat is headed by an Executive Director who reports to a Board. The Executive Director appears to have almost complete authority on all matters pertaining to the Network. He suggested the names of people who were appointed as the National Coordinators. He was the contact person for donors and for the national chapters, and he selected the evaluators for the previous

[119] 2004 had revenues of $630,887. The auditors note that, in 2004, ATPS had an accumulated deficit of over US$200,000. It is not clear how and why this happened. The deficits started in 2003.

[120] The difference between these findings and the new Strategic Framework 2008–2011 document of ATPS is large. The ATPS document reports that the "Principal activities of ATPS for phase V have been regional and small grants for STI policy research, stakeholder and annual workshops / conferences, policy advocacy and an increased publication activity. The publication portfolio was increased significantly and a higher level of grants was made to national chapters as detailed" (sic). "Additional expenditure also arose from the establishment of seven (7) new national chapters. Administrative costs were kept below 20 percent during the last phase;" ATPS Phase VI Strategic Plan 2008–2011, December 2007, page 52 describing past expenditures.

evaluation. He was given the powers by the Board to determine the size, structure, and staff of the Secretariat, including recruitment, promotion, discipline and remuneration.[121] He was also the Secretary to the Board and any subcommittee formed at the request of the Board. He presented the financial information to the Board and made the annual plans for expenditures.[122] This led to a concentration of information and decision-making in the hands of the Executive Director. Ultimately, one person was responsible for all resource-allocation decisions.

162. All interviewees confirm the high energy and intellectual capacity of the Executive Director and his active role in the network. At the same time, a research network spanning many countries must have mechanisms to involve others. This increasingly atrophied over time. Although individual leadership and knowledge can help identify key concerns of policy and issues of priority, they must be "localized" through both expert and stakeholder consultations and participation, which was increasingly missing. Finally, with the departure of the Executive Director in 2005 on a long leave of absence until his resignation in June 2007, the network was left with a complete vacuum in this highly centralized and individualized structure.

3.7.3 The Board

163. The previous Steering Committee of ATPS was converted into the first Board in November 2000. At the following meeting of the Board, the donor members[123] were no longer present[124], and the size of the Board was reduced to six. A new Board member was added in 2001. The one new inductee to the Board in 2001 had to leave by 2004. Another of the original Board members resigned in 2005. In 2006 and 2007, the Board operated with only five members, including the Chairperson.

164. From the beginning, all Board members have been eminent academics and almost all also manage one or more organizations. One of the Board members became the Minister for Science and Technology for Nigeria for a number of years. All the Board members are active in demanding jobs, and also given their eminence and public spirit, are members of many other important advisory committees and boards. Almost all of them had long involvement in ATPS and have been strong and dedicated supporters, with participation going back to 1996. The Board members individually brought considerable benefits to the network through their association. There are many instances of individual board members contributing to ATPS activities above and beyond their role on the Board.

165. For example, an eminent international researcher and Board member acted as a resource person for much of the research conducted by ATPS. The member who became the Minister helped ATPS in mounting several important policy outreach activities in Nigeria, and made it possible for Nigeria to be the only member country to support ATPS activities financially. Similarly, there are many other cases where the Board members have assisted the Secretariat to raise resources from donors for the network. But for reasons that are not clear, the Board was unable to attend to several key demands of the newly independent organization that did not exist when the same individuals served in the Steering Committee under IDRC management.

[121] Board Resolution, 31 October 2001.
[122] Board Minutes, 14 November, 2002.
[123] Before independence, the IDRC Regional Director for East Africa and the IDRC Program Officer had been members of the steering committee. This was discontinued in the independent ATPS.
[124] IDRC chose not to remain on the Committee.

166. Clark and Mugabe (2002, Section 8.1) provide an extensive discussion on the Board of the new ATPS Network. They point out that the Articles of Association have specific provisions for the size, composition and renewal of the Board members through annual general meetings of the Network members. There is still little clarity as to who is a Network member[125] and whether these members perform any legal role in the Network governance, such as in selecting ATPS Board Members and directing major strategic choices of the Network.

167. The Board was scheduled to meet every 6 months. There are no records of a meeting held in December 2004, although an Annual Meeting was held in 2004 (29 November – 3 December) in Addis Ababa. It has been the practice to hold one session of the Board and another for the AGM at these meetings. Board meetings were held with as few as 3 or 4 members, in almost all (6 out of 7) meetings between November 2003 and June 2007. Out of 12 Board meetings held, in four cases, the minutes have not been prepared, and in the remaining eight, sets of minutes were prepared between 5 and 14 months (average 9 months) after a Board meeting.[126] Several discussions, which were recorded in Board minutes, suggested the need for specialized smaller committees of the Board, but these were not acted upon.[127]

168. The Board increasingly delegated more power to the Executive Director, and all information and decisions became centred in this position. The difficulties of the Board were compounded by the lack of annual plans, monitoring and overviews, and context documents. This made it difficult for the Board to evaluate the specific program documentation submitted by management for their consideration. It is unclear why the Board has been unable to work together and fulfill its mandatory functions. It is noted in Board discussions that from time to time there were discussions on: the issue of membership in ATPS; the role of chapters and the AGM in selecting Board members; suggestions to expand Board members; and possibility of the Chairperson stepping down due to personal reasons. There were also discussions on forming subcommittees to look at specific issues. None of these resulted in any clear action.

169. The busy schedules of the Board members, and the irregularities in meetings given their many additional commitments besides ATPS, may have combined to limit their ability to work together as a Board. Independence placed new demands and additional responsibilities beyond what the members had been used to when they served in the earlier Steering Committee. A key lesson is that the visibility and accomplishments of Board members must be balanced with members or supporting committees that have more time to devote to details.

3.7.4 Members of the ATPS Network

170. The issues of membership, and the role of members, have not been resolved since incorporation. In 2005, ATPS reported a new structure to Sida (Figure 3).[128]

[125] Spearhead (2008) reported that there are no membership lists, beyond the seven signatories who signed the incorporation documents for ATPS. For the Sida management review (BDO Consulting, 2005) ATPS stated that the National chapters or coordinators are the members. In discussions with the coordinators, they said that they were not aware of this fact and did not perform any such role. The national coordinators have been appointed by the Board.
[126] Spearhead (2008).
[127] This evidence does not support ATPS statements such as "the Board itself is also constantly reviewing and re-directing the course of ATPS as necessary." ATPS Phase IV Strategy Document, page 33.
[128] This description of ATPS was submitted to Sida in 2005 (source BDO).

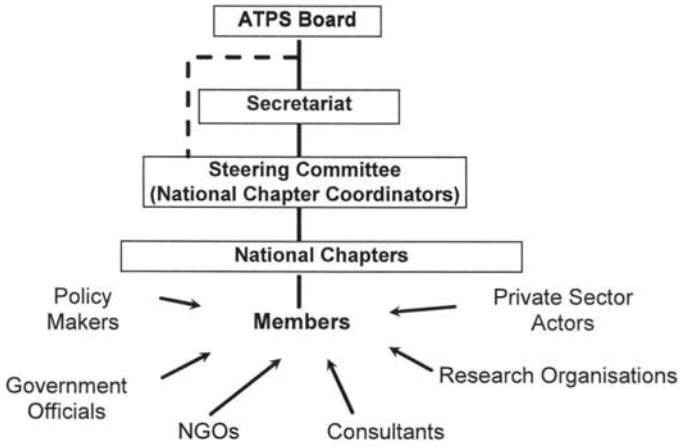

Figure 3. ATPS structure as reported to Sida.

171. When this structure was shown to the national chapter coordinators, they did not recognize it, did not remember having seen it before, or felt it did not represent the structure in their experience.[129] There remains little clarity on: who is a member; whether members perform any legal role in network governance, such as selecting Board members and directing major strategic choices of the network; and the role of coordinators and national chapters. Nonetheless, the new strategy document, which was stated to have been prepared with consultations with the national coordinators, uses this diagram for the network structure.[130]

[129] See report from Uganda in Volume II, for example.
[130] Figure 2, page 62, ATPS Phase VI Strategic Plan 2008–2011, December 2007.

Section 4. Conclusions

172. The ATPS Network has operated in a difficult environment for policy research for science, technology, and innovation for the development of member countries. As the review in Zambia reports, "Zambian parliamentarians have questioned the relevance of taxpayer funded scientific research to the lives of Zambians" and in response the National Science and Technology Council (NSTC), "confirmed that there were problems with research output." The processes of structural adjustment, privatization, and public service rationalization have often escalated the complexities of building capacity for an effective system of innovation. In Uganda, the reviewers found it difficult to make contacts and appointments because the university had run into financial problems and had not paid its Internet Service Provider (ISP) bills. Therefore, all university Internet connections were down. A main weakness of the research system identified by the Department of Science and Technology in Lesotho was the difficulty of convincing the government to invest in S&T. This is a much wider issue in all the countries, as shown in the survey, where between 95 and 98 percent of the respondents felt that both government and donor support for STP was low and needed to be increased. The review notes the daunting challenges in developing an effective research network in an expanding group of countries across sub-Saharan Africa, the challenge of working in two language and research cultures, and a number of other contextual factors.

173. Yet, as noted in the country reviews (in Lesotho) the "network has worked in many ways," and "parliamentarians have been educated on the role of S&T in development" through ATPS activity. In many cases, individuals linked to ATPS "have received wide recognition as a valuable resource person" in STP issues nationally. The growth of national chapters has provided a welcome space in a number of countries for the small, but growing, numbers of individuals involved in research and policy on STP to meet and to present their concerns and findings on STP issues and development. This has provided the seeds for institutional capacity development. The following conclusions are made within this overall context and historical background to the evolution of the ATPS Network.

4.1 Efficiency

174. The OECD DAC[131] defines efficiency as a measure of how economically resources and inputs (funds, expertise, time) are converted to results. Organizations use these resources to generate primarily the outputs that are under their control.

175. Several quantifiable measures of the performance of the ATPS Network have been discussed. The organization of competitive research grants, which had been a core feature of ATPS before, was discontinued after 2002. Therefore, one core set of activities around which the chapters and the network had been organized, was discontinued. The outputs of capacity building, national research workshops, and other related outputs expected from these research grants were reduced to zero. They were replaced with a larger focus of resources on thematic research. Four main areas of thematic research were reviewed. The outputs on biotechnology were considered good. Those on ICTs are more mixed and marred by little attention to dissemination and publication of the outputs. The outputs on water and environment are variable, and the individual studies that were reviewed had a number of shortcomings, and there was little coherence to the program area or links to issues of STI. There have been few outputs from the fourth program on health technology policy.

[131] OECD 2002 Glossary of key terms in Evaluation and Results Based Management, Paris, page 21. OECD defines results as the output *or* outcome *or* impact. It is much more useful to separate the three.

176. The review of other activities, such as workshops and meetings, shows considerable variability in their intent, continuity, and coherence with the objectives of research, policy dialogue, and highlighting network outputs. An overall issue of low participation of country coordinators reduces the usefulness of the multiple communications and outreach activities. In addition, the reports and plans often suffer from a lack of care to distinguish actual results from plans and hopes.

177. Efficiency depends on how resources are converted to achieve outputs that help achieve goals and objectives. The new ATPS Network showed its awareness of the ratio of resources devoted to network activities versus network support. It hoped to "maintain this management to programme ratio, though high initial office set up costs after autonomy may upset it somewhat."[132] It also hoped that "improved administration and management," transfer of activities to the national chapters, and "economies of scale" resulting from a larger financing envelop, could keep the ratio low. It states in 2004, that "Administrative costs were kept below 20% during the last phase." The figures for office expenditures and funds transferred to the national chapters reviewed earlier, contradicts this and so the evaluation concludes that the network, and in particular the Secretariat, fell far short of its own stated goals of efficiency. Therefore, network efficiency is judged to have been low.

4.2 Relevance to Development Goals: Looking Back and Looking Ahead

178. The relevance of ATPS goals must be defined through the lens of the African stakeholders and potential beneficiaries. The appropriateness of the ATPS Network goals, objectives, and many activities have remained valid and are confirmed by many ongoing efforts in sub-Saharan Africa — by governments, key development support partners at meetings, policy declarations, and actual investments.[133] They are also confirmed by the organizations consulted during the study and the participants who replied to the electronic survey.

179. ATPS has its origin in three Technology Policy Workshops (TPW) held in sub-Saharan Africa in 1982–1983, which were held in response to an almost complete absence of research capacity on STP and development. A quarter century after that, the TPW Tracer Study[134] is confident that a majority of participants had successful careers dealing with science and technology policy issues in Africa. It suggests encouraging outcomes, influence, and impact from this first cohort. Several participants have gone on to head national and regional institutions for science and for policy. Some left the continent, sometimes by choice and sometimes under duress due to deteriorating local conditions.

180. From the beginning, the researchers included a mix of countries, a mix of disciplines (e.g., engineering, physics, sociology, economics, and history), and a spectrum of professional responsibilities (e.g., public administration, university research and teaching, and international public administration). Perhaps the largest contribution that research and capacity-building support provided is summarized by a participant who reported he learned to see things "differently from the way I did then… and … began

[132] It stated that (before independence) of the total annual budget of about US$1.2 million, 81% or almost US$1 million was spent on programs and a little more than US$200,000 was spent on Management and Technical Assistance. Another 10% or about US$120,000 was allocated to indirect overheads by IDRC.

[133] The review by Watu Wamae, undertaken for IDRC in parallel, provides a good starting point for the research needs. The meetings of the African Conference of Vice-Chancellors, Provosts and Deans of Science, Engineering and Technology (UNESCO, 2006) and of African Heads of State at the last summit, and the policy declarations and concomitant efforts in Ghana, Kenya, Mozambique, Nigeria, Rwanda, South Africa, Tanzania, and Uganda attest to the growing importance of the goals set by ATPS.

[134] Extracted from Smart, C., 2007. TPW Tracer Study, IDRC.

looking at indigenous technical knowledge, the hows and whys these are given least attention on policy decisions, the role of "formal" technology" (Smart 2007).

181. The evidence suggests that for the most part IDRC's investment in STP in sub-Saharan Africa made a difference, though criticized at the time by disciplinary sceptics within and outside IDRC. This tension between grudging approval together with exaggerated expectations, for what was a pioneering effort, continues to be a part of the historically relevant context for ATPS. With hindsight the tests set out for researchers in the network — "application of policies" was simply an unrealistic task under the conditions. In retrospect and highly relevant to the current review of the ATPS are the comments by the IDRC Director of the program: "Science and technology policy orthodoxy was conceived in terms of governments, administrative control, and rational objectives, rather than processes, demand, and institutional plurality, which would have been more immediately useful to most sub-Saharan African communities ... The failure to include these issues and their link to education and training was a big weakness and showed, in part, how well intentioned but limited IDRC was in building general platforms and then providing the resources to follow them up" (Smart 2007).

182. The same issue is raised in the Wamae review: "specifically, latent STI issues that relate to the development of technological competencies to transform existing knowledge to new configurations have remained in the periphery of STI policy research. The study contends that although such issues are generally difficult to address, they are key to promoting or undermining the ability to benefit from science, technology, and innovation. The existing STI policy research appears to focus on providing policy guidance on technicalities of international laws that affect STI activities. Although the importance of these efforts can be justified, they address only part of the STI challenges in Africa. They are likely to have little impact on innovation dynamism unless inherent structural aspects are addressed."

183. The thematic issues covered by ATPS represent many of the key issues for the countries where it worked or hoped to work. Climate change, highlighted at the 2007 annual meeting, both mitigation and adaptation, other environment and energy issues, and energy as a critical input for the poor to improve their lives, represent a set of extremely complex issues that require attention. Issues related to water, which was identified as a key input for increased food production, and to growing water shortages and conflict are deemed to be a priority for Africa, and an important area for research. Both of these are large, complex, and critical. Similarly, the efforts to study health systems, with the impacts of HIV/AIDS, malaria, and a number of other health problems, are completely warranted. The same holds for the issues of global trade and technology and each of the other issues – youth, gender, science popularization, improving curricula, and other overall themes identified by ATPS. These are often highlighted and discussed in the annual conferences and are all highly relevant to the issues and requirements of African countries, and their people.

184. It is in the execution of work in these thematic areas where there have been difficulties. Regional research and cooperative efforts for knowledge generation have tremendous potential value[135] and they come in many different forms. Ideally, they allow country-level disparities in capabilities between cooperating countries to be reduced. They also allow for more effective and efficient use of the scarce resources because many activities — such as research reviews, coordination, dissemination of knowledge, and expert support and backup — all require a critical mass of effort to function effectively. Pooling of research efforts allows the many small and poor countries of the network to potentially gain

[135] Many additional points are made in Sida Report 99/3, which has additional information on a large number of networks in Africa.

from related enquiries in other countries, and minimizes duplication of effort in some areas by working on common problems within the region. It can also increase the scale economies of potential outputs by increasing the scope of solutions, new technologies, products, and services, and thus total impact. Finally, there is further potential value in that knowledge production globally is an increasingly networked activity, and regional networks can build capacity within poor countries by allowing researchers to join global networks.

185. But a regional network only works well with a minimum base of *national capacity, activities, and resources*. A problem in many of the ATPS chapter countries is that their domestic resources, money, trained people, and institutions are very small. In such situations, great care and attention are required to provide the most appropriate support for such efforts. Knowledge of the local context is critical, so is ongoing involvement in the development of the network structures and relationships between member country chapters with highly uneven capacities and between the national entities and the central node. It is especially important in such situations to ensure adequate governance mechanisms; to allow users (or potential users) to be members of the governance structures; and to encourage transparent processes and dissemination of results. The detailed cases of the countries sampled suggest that this has been a reason for fundamental shortcoming of the ATPS Network.

186. It is also important to define goals, activities, expectations, outputs, and outcomes, and to precisely and openly assess strengths and weaknesses and real successes and challenges. This must involve active and open contributions of all partners, and the reporting of results in newsletters, annual reports, websites, contribution documents, and in periodic evaluations. Uneven capacities across a very large network, combined with deficits in communication, clarity, and accounting for results, have accentuated difficulties in the ATPS Network.

4.3 Effectiveness

187. In assessing effectiveness, there is a need to determine the degree to which resources are used prudently, planned outputs are achieved, and most important, if stated objectives are appropriate and relevant for achieving positive results.

188. Although there are a number of examples of useful outputs, and some outcomes and impacts, low efficiency and low outputs, combined with indifferent quality, lead to a judgement of low effectiveness. This judgement is further amplified with the qualitative evidence of low attention to constituents in the national chapters, low coherence between the national plans and support by the Secretariat, and a lack of confidence between the Secretariat and the chapters. For these reasons, the effectiveness of the independent ATPS Network is judged to be poor.

4.4 Sustainability

189. The ATPS Network failed to achieve goals it listed for itself in its 2000–2003 and 2004–2007 strategy documents. It failed to provide the required support to national members, to researchers, or to other stakeholders through its limited financing of research and even lower outputs of the work it did finance. The ad hoc processes of activities, the lack of governance mechanisms, and the lack of feedback, monitoring and accountability have been damaging to the ATPS Network. It is unlikely that the ATPS Network will be able to raise the US$19 million that is planned for the next phase (2008–2011) and that the ATPS Network will receive the support it had before without major changes. Therefore, the evaluators make the judgement that the sustainability of the ATPS Network has been reduced.

4.5 ATPS Achievements

190. An important distinction must be made between the ATPS as a concept and the ATPS Network as it has operated as an independent organization. ATPS is highly appreciated as a concept, but it has less support in practice. There is universal recognition of the uniqueness and irreplaceable nature of the concept behind ATPS and its potential role in Africa.

191. The fact that the organization has survived, and the reality of ongoing support from many donors, are themselves achievements worth noting given the complex evolution of the organization. Several successful outputs and activities have been noted throughout this review. Many of the successes are due to the efforts of individuals and groups. In particular, individual Board members, many national chapter coordinators and members, researchers, and policymakers have provided valuable support. Similarly, considerable work by individuals in the Secretariat has contributed to the successes of ATPS. Among highly notable activities are many at the national level, which have been carried out with high local value with small sums of money.

192. ATPS provided a long list of individuals associated with the network who have been tapped by their governments to assist in some relevant aspects of policy in and for STP. The growth of national chapters has provided a welcome space in a number of countries for the small, but growing, numbers of individuals involved in research and policy on STP to meet and to present their concerns and findings on STP issues and development. This has provided the seeds for institutional capacity development and change — as illustrated by some of the outcomes from Ghana, Lesotho, Kenya, Nigeria, Tanzania, and Uganda. The importance of the ideas that have inspired ATPS stakeholders is uniquely illustrated in Sierra Leone, where the coordinator, the chapters, and researchers have continued to be involved before, during, and after civil war.

4.6 Principal Limitations and Constraints

193. This review highlights the fact that ATPS has faced and continues to face several limitations and constraints that severely reduce its potential efficiency, effectiveness, and impact toward supporting its mission, goals, and objectives.

194. There are several reasons for these limitations. Some arise from the nature of the tasks the network wishes to tackle. “Science, technology and innovation” policy is a relatively amorphous, ambiguous, cross-disciplinary, and cross-institutional subject area with wide-ranging boundaries and a weak institutional base. This is a given for the field in which the network operates, and the conflicts that arise from the nature of the “knowledge” and the wide group of stakeholders, must be kept in mind and cannot be taken lightly. Some others limitations arise from the context and nature of interactions between the key stakeholder groups, and the fact that success relies on wide cooperation between different actors, which in turn requires each to perform activities for the common good. A number of challenges have emerged due to key failings of each stakeholder group, individually and collectively. Some of them arise from the historical roots of the network evolution — threads and tangles that have never been adequately addressed until they unravelled completely.

195. Poor processes for monitoring and self-assessment of the ATPS Network have historical roots. The systematic lack of the completion and reporting of formal assessments and evaluations (except one in 1994 and the second in 2004) that were scheduled and budgeted was a mistake. The lack of evidence of systematic follow-up of issues raised by the two evaluations carried out over the 15-year history of ATPS indicates poor management of key issues and weak governance of the Network.

196. Some of the roots of the challenges faced by the new ATPS Network go back to its history. During the period of IDRC management of the network, the need to improve peer review processes over time, the variability of country participation, and need for increased local ownership of the network were noted. Similarly, the demands on the network moving into thematic research and the need for higher capacity were also noted. The pivotal mistake made at the time of independence was to believe that the network governance functions could be undertaken with fewer resources than were available earlier and that the ratio of network management to disbursements would go down. It is here that several steps could have been taken to provide additional support to the new Board. Without that, the ATPS Network evolved into a structure with very few and poorly performing feedback processes, with all powers and communications centralized in the office of the Executive Director, and with a structure that grew in size, objectives, and complexity. A welcome departure in process has resulted in two SWOT analyses carried out by the new Executive Director at the Secretariat in the final quarter of 2007, apparently the first formal consultation with the chapters since 2000. But this was inadequate. A review of the analysis carried out does not show any acknowledgment of real problems or weaknesses. The choice of the person conducting the analysis is unclear, and the views of chapters and coordinators as presented in the accompanying volumes are in complete variance with the analysis presented in the SWOT reports.

197. The somewhat unchanging character of individuals at many points in the network, the Board, and chapters over decades is a problem also rooted in history. The first seeds in the TPW exercise were to build individual capacity and to nurture this. The continued participation of network researchers in ongoing activities can be both positive and negative. With unchanging participation by a small group, the network has been unable to sustain the interests of many others who have been involved with it in the past, nor can it draw strong links to new and younger researchers who have increasingly emerged. Concerns were expressed by many interviewees that the entire network had stagnated in recent years with the same faces at meetings whether as resource persons, chapter coordinators, or Board members, and that there was little intake of new and younger people, many of them trained in STP issues. The weaknesses increased when the annual competitive grants were stopped in 2004, possibly due to low availability of funds. The funds available were allocated disproportionately towards Secretariat expenditures and the statements of intent suggest that deficiencies were expected to be made up in the future. After 2005, the lack of leadership in a structure that had become highly individualized is likely to have continued the drift. There is a critical need for a process for renewal of the network at all levels.

198. Decision-making and accountability structures have been highly problematic. There are historical roots to this,[136] which were accentuated during 2001–2007 and lead to several serious operational shortcomings. Examples of delays, non-disbursements of awards without explanations, ad hoc decisions, and non-disclosure of key activities have been discussed. A number of limitations in the communications between the ATPS Secretariat and the Board and the national coordinators, and hence with the broader constituencies, have been noted.

199. Relatively little information has been made available on the research programs that were supported and their impact. Research excellence must be a fundamental guiding principle to provide support to programs and grantees, while recognizing and ameliorating the very difficult conditions faced by researchers in many countries. Attention to this has been inadequate, however. Therefore, the quantity of research efforts and outputs is low, as is the quality of research outputs, although there are exceptions.

[136] The first and aborted move to create an independent ATPS was retracted in 1997, after several iterations on the roles and responsibilities of national focal points, committees, chapters, and coordinators.

The choices for the thematic research are, on the whole, appropriate. However, the gender dimension and issues appear to have been noted from time to time but neglected overall. The themes chosen and supported are broadly in agreement with development needs but the way ATPS works does not provide scope for tapping available capacity, improving capacity, making good use of resources, nor developing strong links to countries and other organizations.

200. There have been severe limitations in the interactions by the Secretariat with national coordinators and chapters. The responses to plans and proposals from the chapters have been somewhat ad hoc, with little concern for the specificity of needs, the amounts, and the continuity of support. Some national coordinators have been paid a small honorarium some of the years and others not. The national stakeholders consulted, in general, did not approve the processes within the ATPS Network. Many national coordinators work under a lot of other regular and ongoing demands and pressures. Board members also work under similar demands and pressures and attend to their functions with complete dependence on the information provided by the Secretariat. It is commendable that many of them have contributed usefully to the Network in spite of its difficulties. This provides a positive indication of country needs that are still not being met. Most found the process for the network to be flawed and felt that the Network had lost links to national level research and to the context of its users. Several partners remarked on the perceived disconnect between the Secretariat and the Board, between them and the chapters, and between the ATPS Network as a whole and the donors.

201. There is an absence of monitoring for results that are shared with member countries, donors, and other stakeholders. There are also serious shortcomings in monitoring of “knowledge” and “capacity” on the ground in dispersed countries. The use of information and communication technologies for the dispersed network has been weak. The review concludes that the processes of follow-up (control, monitoring, and evaluation) were largely procedural, not meaningful, and failed to ensure useful planning for the future. There have been three strategic plans prepared for the ATPS Network. There are, however, no formal monitoring and feedback processes that illuminate the gaps between ambitious “strategic plans” and feed into decision-making. No corrections can be seen to have been made during the period, no acknowledgements of deviations between plans and actual results were found, and no feedback was observed from the Board or network members. Corrections can never be made if there are no acknowledgments of deficiencies.

4.7 Concluding Remarks

202. No one is pleased to hear of problems, difficulties, or possible failure. That is one important reason to ensure useful, timely, transparent, and independent monitoring and evaluation systems are in place. These are even more important where the products are complex — research, knowledge, capacity building. Their importance increases further when the organization is a network or partnership, where clarity of understanding by all partners is a basic necessity for achieving common goals and objectives.

203. It is important for key stakeholders to recognize that the challenges before the ATPS Network do not arise from the statements in this report, they come directly from the network partners. Many of these are documented separately and independently in the different interviews with national coordinators. The process included a set of meetings, reviews, a survey, and consultations. It yielded the positive result of achieving greater clarity among network members.

204. The report focuses on how, where, when, and why certain aspects of the work supported by ATPS have performed better and at other times less well, in comparison to the goals, objectives, and targets set

by the network itself. It has always aimed to focus on the key challenges and how the stakeholders involved in the network can dramatically improve the outputs and outcomes of available resources, including the possibility of greater resources for the very worthwhile activities.

205. The recommendations that follow do not provide a formula, they suggest processes that have worked well in other institutions and are also desirable in their own right. We emphasize transparency, and much higher participation by key stakeholders. This will lead to more participatory decision-making, more informed choices, effective and optimal use of investments, and accountability. The recommendations for significantly wider, deeper, and more effective participation by all stakeholders, including donors, cannot be taken as "against the interests of Africa" or leading to reduced "ownership."[137] It is important not to fall into the trap of some people (in the North and the South) who characterize the objective of good governance as a Western phenomenon, which the South cannot afford. We recognize that the challenges in developing countries are due to dependencies of many sorts. But efficient, effective, and accountable decision-making helps reduce challenges.

206. The report unequivocally affirms that in response to the growing development needs in sub-Saharan Africa, the increased recognition of STI for development means that demand for STP research has grown substantially in the last 10 years. The ATPS network remains one important option in thinking about the structure of organizations that provide support to research, knowledge, and capacity-building in this area.

207. A variety of options are available for the future configuration of the key components of the ATPS Network. They all require a dedicated and proactive Secretariat to coordinate and actively promote networking and the sharing of information between stakeholders. This has been the network model followed so far, and the justification for seeking a high profile Executive Director to play a proactive role in networking, coordinating, and sharing information between the diverse groups of stakeholders. However, a balance must be found because the individual researchers in the national chapters provide the network with deep roots for stability, strength, and protection. Ideally, any new structure will have some similarities with the past, while encouraging wide participation and the capacity to grow and develop in an organic manner. Therefore, in any new form, there is a need for a stronger and well represented supervisory group — with a clear role in steering the work of the Network. This group can only do this if it is supported by a more hands-off independent body whose primary role is consultative and advisory — often called a Technical Advisory Group or Committee.[138]

[137] As has been suggested in ATPS documents as reasons not to have close participation by donors.
[138] See for instance C. Pestieau, AERC Governance, Management and Structure – A Model That Works, forthcoming in AERC, AERC History, September, 2008.

Section 5. Recommendations

208. Going forward, there are some large decisions and policy choices that have to be made by a number of key and distinct stakeholders. They first include those most directly involved at this time — the ATPS Board and Secretariat, the ATPS Network chapters, and the donors. Each will make its decision both individually — based on each organization's rules, perceptions and capacity — and also as a group, if ATPS is to be revitalized.

209. This evaluation has reached the conclusion that on the whole, and since the creation of the independent ATPS Network, ATPS has continued to engage in the goals, objectives, and tasks that it set out for itself in its founding documents. It has found that the outputs have been low and highly uneven. The major difficulties have rested on poor execution and not in poor conceptualization. The goals, objectives, and tasks that were set in the articles of the network remain highly relevant for the countries it serves, and others it has not served. Therefore, the preferred choice of the evaluation team is to see a new and revitalized ATPS Network that meets the objectives it has set for itself in its articles of association and to which so many individuals and organizations have contributed over the years. This will depend on choices and decisions of several stakeholders, and their common understanding and ability to work together toward collective goals.[139] A revitalized network must be attentive to preserve core strengths and purpose, with increasing governance processes and capacity, so that weaknesses are managed and removed, and ensuring appropriate individual incentives for network stakeholders. The recommendations are not only addressed to IDRC or ATPS, but to the donors and other stakeholders as broad guidelines.

210. A summary of key elements for going forward with the independent ATPS Network is given here.

5.1 Governance

- The governance structure for ATPS must be improved by going back to its articles of association as well as various key documents, including the earlier evaluation reports. All key stakeholders must be represented. The "State institutions," as key consumers and drivers of both policy and resources and for STI research (but of course, not as the only actor), must be formally incorporated into the governance and networking features in the future — both at the national and Secretariat levels.
- The roles and responsibility of network chapters in network management and governance must be clearly articulated.
- There must be additional costs incurred to provide for a technical advisory committee, independent of the Board, that assists the Board by undertaking annual reviews of key issues for the network. This performs a challenge function and can provide the Board with more in-depth information than it can gather by itself.
- There are several issues of particular importance for Africa that require more focus. This would respond to the special priority in allocations to the needs of the region, the weaker national support for S&T, and renewed interest on the part of the international donor community to support science, technology, and innovation in this region.

[139] This will depend on the resolution of the legal issues raised in the audit report.

5.2 Institutional

- Develop a clear and measurable strategy for strengthening national chapters, including Francophone chapters, based on the network vision and mission and on chapter realities, needs, and desires. This would involve not only funding competitive research grants and sharing research findings to stimulate public and policy dialogue — which seems essential to mobilizing members at the national level — but also having an ear to the ground and really partnering with national chapters to help them address their concerns. This would involve sharing Secretariat expertise in outreach, publications, and resource mobilization through training and other means, and should certainly involve opportunities for sharing lessons and best practices among national chapters. This should involve building on institutional strengths at the national level and providing synergistic ways of adding value. The Secretariat could perhaps experiment with decentralizing coordination of certain program-related activities to national chapters with pertinent capacity and with necessary support from the Secretariat.

5.3 Capacity-Building

- Develop mechanisms to ensure that national and regional concerns and priority thematic issues are known and reflected in the 2008–2011 strategic framework and subsequent annual action plans. This will require a new framework for dialogue between the chapters and ATPS.
- Attempt to facilitate more synergy among national chapters, especially those in countries sharing similar development concerns.
- Seek to be driven from within, building on expressed national and regional needs, and promote the use of members as consultants, writers, and editors.

5.4 Research Support

- Reinstate, strengthen, and improve individual research awards.
- Develop courses at the graduate level to provide some core modules of STPI to increase common language and understanding.
- Improve and formalize peer-review processes for selection of research awards, projects, and other activities that get funded by the Secretariat.

5.5 Communication and Dissemination

- Annual reports, newsletters, and the website must be used more effectively. Communication must be transparent and should clearly indicate all financial information in the annual audit reports.
- Further monitoring and evaluation systems need to be in place. They must also monitor and report allocations of Secretariat funds by activity, with outputs and outcome, both at the Secretariat level and the national level.

5.6 Operational Issues

- Improve strategic frameworks.
- Strengthen monitoring and evaluation activities. Enhanced and more effective reporting and monitoring systems should be integrated into monitoring of all resources and donors.
- Develop approaches and criteria that will allow the measurement of research-capacity building.
- Give greater attention to individual country context and capacity.

- Build governance and management capacity of the network and improve beneficiary involvement in governance.
- ATPS should improve clarity, accuracy of communications and feedback processes in operations, internal control mechanisms, and systems for monitoring and evaluation. This includes clear procedures for selecting the Executive Director, for reporting budgetary matters to the Board, and for sharing the same information with national chapters. National chapters from all regions of the continent deserve representation on the Board, and Board decisions should be widely circulated within the ATPS Network.
- Improve information and communication technology platforms and content to facilitate two-way access between network members.
- There must be better flows of communication within the network, more of a *culture of communication* as a process. This includes more listening to national needs and processes for feeding up national information in a greater spirit of partnership.

5.7 Gender

- Track the rate and quality of participation of women in ATPS activities and develop strategies to ensure that women are involved in network decision-making and leadership at national and regional levels.
- Review the research support that has been provided in the network under this theme and create a synthesis of what is known, what can be disseminated, and what would be important new areas for research

211. The evaluation team supports the aspirations of ATPS chapters to be a pan-African network, not just an Anglophone network. At the same time, this goal requires ATPS to surmount many existing barriers and challenges. They include resources, language capacities, and greater knowledge of many additional countries. The plans for the inclusion of any country must be a part of the careful articulation of strategy for the future.

Annexes

Annex 1: Terms of Reference

The specific objectives of the evaluation were:

- To document the results of the ATPS network in terms of outputs, reach, outcomes, and possible impacts. Thereby assess the overall impact of the African Technology Policy Studies (ATPS) Network, including the research contributions of ATPS, capacity building and policy impacts, and other outcomes and influences of ATPS work, with an emphasis on the period 2001–2007 while being cognisant of its historical evolution and previous phases. And, keeping in mind the context and role of donor investments and support, in particular, IDRC.

- To determine the efficiency and effectiveness to which ATPS is meeting the stated objectives and goals; and the strengths and weaknesses of the structures of ATPS including the institutional model, governance, strategies, linkages between the secretariat and national chapters, between activities of research, policy and capacity building; keeping in mind the emerging context in Africa and the countries where it has been most active.

- To draw lessons on the strengths and weaknesses of ATPS in relation to the current state of the demand for the knowledge in this field in Africa, as well as the national and regional structures for researchers. And,

- To assist ATPS and its constituency of stakeholders in the development of new 5-year strategic directions (2007–2012).

The mechanism for the evaluation will be a co-ordinated set of activities supported by the IDRC with the ATPS as an active partner.

Annex 2: Evaluation Team

Amitav Rath

Dr. Rath is the team leader for the evaluation. He has worked on issues of development policy, focused technology and innovation, energy policy, and climate change issues, for over twenty years in a large number of countries. He was trained in science and engineering at the undergraduate level in India and then at Berkeley in Operations Research, with a focus on economics and systems analysis, for his Masters and Ph.D. He remains engaged in teaching and research, which have included institutions in India, Canada, Jamaica, Sweden, and the USA and has been involved in over fifty research articles, reports and books in his areas of work. He worked at the International Development Research Centre (Canada) for over ten years and was the manager of programs in Science, Technology, Energy and Economics during this period. Some of the notable work from the work at IDRC is published in a special issue of World Development on *Science, Technology and Policy in the Periphery* and in the UNU published volume *Science, Technology and Development*. He directs a consulting practice at Policy Research International based in Ottawa. Currently, he is a member of the Technical Advisory Group for the World Bank trust funds on energy, an adviser on innovations to the DFID funded work on *"Research into Use"* and is a member of the editorial board of the journal *Comparative Technology Transfer and Society*. He has conducted a number of evaluations including the recent evaluation of the international and thematic research programs of Sida/SAREC. Other notable recent work includes a review of Biotechnology issues for developing countries; S&T and Innovation Indicators in Africa; South-South cooperation with a focus on S&T; and, a synthesis study of innovations in the natural resources research portfolio funded by DFID.

Rasigan Maharajh

Mr. Maharajh is currently Chief Director of the Institute for Economic Research on Innovation (IERI) based at the Tshwane University of Technology, Pretoria. He was previously the Head of the Policy Group at the Council for Scientific and Industrial Research (CSIR) following his work as National Coordinator of the Science and Technology Policy Transition Project for South Africa's first democratic government. Before the 1994 transition, he worked in the non-governmental sector while holding elected leadership positions within various structures of the mass democratic movement and the African National Congress. He is an active member of the Global Network for the Economics of Learning, Innovation and Competence-building Systems (GLOBELICS) where he has taught at their Doctoral Academy in Lisbon. He is an alumnus of the University of Kwa-Zulu Natal, Wits Business School and Harvard Business School and has also been associated with Harvard University, University of Manchester. He is presently a doctoral candidate at Lund University in Sweden. His research in the field of evolutionary political economy involves numerous international, continental and regional projects on the form, function and context of knowledge generation, application and diffusion in economic growth, social development and democratic governance. His latest publication is: "Global Economic Policy Reform: A Contribution to the Helsinki Process on Globalisation and Democracy" forthcoming from the Institute for Global Dialogue (2008).

Kathryn Touré

Ms Touré studied political science at the University of Kansas in USA and at Grenoble University in France and African history at the University of Abidjan in Cote d'Ivoire. She is working toward her doctorate in education for 2009 from University of Montreal. Ms. Touré has 15 years of experience in partnership and institutional development, networking, and administration of international and intercultural learning and research programs. Since 2001, she is based in Bamako, Mali where she serves as the sixth regional coordinator of the Educational Research Network for West and Central Africa (ERNWACA). ERNWACA conducts research on the future of education from pre-school

through university in both formal and non-formal settings, with a particular look at the quality of education and skills development. She helps coordinate projects and publications in these areas and in particular on the pedagogical integration of technology and on decentralization of social sectors. She worked in the private sector in Cote d'Ivoire, in human resources development, adult education in particular, and with Africa Online, a pan African Internet Service Provider, where she was involved in the first online versions of major newspapers in Cote d'Ivoire and other countries on the continent. Before that she was responsible for interdisciplinary studies and outreach programs at the Center for International and Comparative Studies at the University of Iowa in USA and in that context was involved in launching the International Center's first distance course, *Internetworking for Development*.

Mbangwana Moses Atezah

Dr. Atezah obtained a Ph.D in educational technology from Southern University at Carbondale, Illinois in USA in 1991. He is an Associate Professor of Education and is currently with the regional office of the at the Educational Research Network for West and Central Africa in Bamako where he is Research Program Manager for the Pan-African Research Agenda on the Pedagogical Integration of Information and Communications Technologies (ICT), a project sponsored by IDRC. He was formally a lecturer at the Ecole Normale Supèrieure Yaounde, Cameroon, where he taught causes in educational technology and methods of evaluation. He has participated in many ICT conferences and methods workshops. He has published extensively and a co-author of four books. He was a visiting lecturer at the University of Buea, and also, University of Jilin, China.

Onguéné Essono Louis Martin

Dr. Essono studied at the Sorbonne and Paris VIII in France and earned a Doctorate in 2000 in grammar and language from University of Yaounde I.. He is an Associate Professor of Education at University of Yaoundé I in Cameroon. He e worked with the Centre de Formation Professionnelle de l'Audiovisuel (CRTV) in Cameroon in 2004-2005. He is editor-in-chief of an interuniversity online journal, *Tice et développement*. He is an active member of the Educational Research Network for West and Central Africa (ERNWACA) in Cameroon and is involved with AUF and Rés@tice. He has lectured on publishing and on gender issues in Cameroon and been a visiting scholar in France and in China. He participated in Bamako 2002 to prepare the 2003 World Summit on the Information Society (WSIS) and participated in the WSIS 2005 in Tunis. He has published extensively, including a book chapter on ICT and national languages and participated in evaluations of distance courses in Mauritius.

Christopher C. Smart

After a first degree in General Science from the University of Toronto Mr. Smart crossed into the social sciences and humanities with an MSc in the History and Social Studies of Science from the Science Policy Research Unit of the University of Sussex. After graduation he was a secondary school teacher of science, first in Canada and then in Sarawak, Malaysia as a CUSO volunteer. Following graduate studies he was Senior Tutor for four years in the Department of History at the University of Papua New Guinea and then the Associate Director for Overseas Programs for World University Service of Canada (WUSC). Mr. Smart joined IDRC as a Program Officer in the Science and Technology Policy Unit. At various times he was Deputy Director of the Fellowships and Awards Division and of the Social Sciences Division and completed his career as Director of the Special Initiatives Division. He retired in 2003. Mr. Smart has served on several boards: most recently as a member of the Board Directors of Voluntary Service Overseas Canada (VSOC) and Chair for three years; and currently, the Advisory Board of Engineers Without Borders (EWB) (Canada) and the Advisory Committee of the Association for Higher Education and Development (AHED-UPESED). He is a Reader for the Goldman Sachs Global Leaders Award administered in Canada by the Canadian Bureau for International Education.

Annex 3: Persons Met and Interviewed

IDRC

Dr. Richard Isnor, Director, Innovation, Policy and Science (IPS).
Dr. Brent Herbert-Copley, Director, Social and Economic Policy.
Dr. Constance J. Freeman, Regional Director, East Africa Regional Office.
Jean Woo, Program Officer, Innovation, Technology and Society.
Dr. Eva Rathgeber, former Regional Director, East Africa Regional Office and member of ATPS Steering Committee/Board, 1992–2001.

African Technology Policy Studies Network (ATPS)

Prof Norah K. Olembo, Professor of Biochemistry, University of Nairobi and Executive Director, African Biotechnology Stakeholders Forum (ABSF) and Chair of the Board, ATPS, 2001–2007.
Prof Joseph George Momodu Massaquoi, Director, UNESCO Nairobi Office and Regional Bureau for Science in Africa. Member of ATPS Board, 2001–2005.
Prof Sam M. Wangwe, Professor of Economics and Senior Associate, Economic and Social Research Foundation, Dar es Salaam. Member of ATPS Board, 2001 to date.
Kevin Urama, Director, ATPS. (Took over the responsibilities of ED based in Nairobi on 1 September 2007).
Sheila Maina, ATPS, Research and Training Manager, (to September 2007), Acting Executive Director, 2006.
Kennedy Auka, ATPS, Finance and Administration Manager, to October 2007.
Lily Aduke, Communications and Outreach Manager, ATPS.
Lucy Mwangi, Programme and Publications Administrator, ATPS.
Carol Thuku, Executive Assistant and Senior Secretary, ATPS.

Burkina Faso

Dr Benoit Kabore, Université de Ouagadougou, and ATPS National Coordinator.

Cameroon

Mr Sylvester Ndeso Atanga, Lecturer, Epidemology and Public Health, Faculty of Health Sciences, University of Buea, and ATPS National Coordinator.
Dr. Pius Mbu Oben, University of Buea.

Ghana

Dr George Owusu Essegbey, Senior Scientific Secretary, Science and Technology Policy Research Institute, Council for Scientific and Industrial Research, Accra, and ATPS National Coordinator.
Dr. Yaa Difie Osei, Chairperson, Board of Trustees, ATPS Ghana.
Dr. Beatrice Mensah, Member of ATPS, Ghana.
Dr. Frederick Amu-Mensah, Member of ATPS and in-coming National Coordinator.
Dr. Godfred Frempong, Treasurer, Council for Scientific and Industrial Research,Accra.
Selina Lawer Angmler, Secretary.
Dr. Abeeku Brew Hammond, Dean, College of Engineering, Kigali Institute of Science and Technology (KIST).

Kenya

Prof. Judi Wakhungu, Executive Director, African Centre for Technology Studies (ACTS), and Executive Director of ATPS, 1998–2000.
Kevit Desai, Director, Centurion Systems, Nairobi.
Prof. Isaac Nyambok, University of Nairobi.
Prof. Francis Mutua, University of Nairobi.
Olusanya Ajakaiye, Director of Research, African Economic Research Consortium (AERC), Nairobi.
Banji Oyeyinka, UNU-MERIT and UN Habitat, Nairobi

Mali

Dr Sidiki Gabriel Dembélé, Agrochimie/Agroforesterie et Fertilité des sols, Bureau Ouest-Africain d'Appui Organisational et de Technologies Appropiées, and ATPS National Coordinator.

Nigeria

Prof Michael Madukwe, Department of Agricultural Economics, University of Nsukka, and ATPS National Coordinator.
Dr. Agwu Ekwe Agwu, Department of Agricultural Economics, University of Nsukka.
Dr John Adeoti, Senior Research Fellow, Nigerian Institute of Social and Economic Research (NISER), Ibadan.
Prof Femi Olokesusi, Senior Research Fellow, NISER, Ibadan, and ATPS Associate National Coordinator.
Mr Abideen Alamu, Research Fellow, NISER.

Sénégal

Dr Papa Alioune Sarr NDIAYE, Ecole Supérieur Polytechnique (ESP), Département Génie Electrique, Dakar, and ATPS National Coordinator.
Mady Cissé, Ecole Supérieur Polytechnique (ESP), Département Génie Electrique, and ATPS General Secretary.

Sierra Leone

Mr Chris Squire, Head, Department of Mechanical Engineering, University of Sierra Leone, c/o Computech, 22 Pultney St., Freetown, Sierra Leone, and ATPS National Coordinator.

South Africa

Mario Scerri, Research Fellow, Institute for Economic Research on Innovation, Tshwane University of Technology.
Thomas E. Pogue, Research Associate, Institute for Economic Research on Innovation, Tshwane University of Technology.
Dhesigen Naidoo, Deputy Director General, International Relations and Donor Coordination, Department of Science and Technology, South Africa.
Dr. Michael Kahn, Director, Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council.
Dr. John Mugabe, Director, NEPAD Office of S&T.
Prof. Anastassios Pouris, Director, Institute for Technological Innovation, University of Pretoria
Dr. Rubin Pillay**,** Senior Lecturer, Department of Management, Faculty of Economics and Management Services, University of Cape, Cape Town, and ATPS National Coordinator.

Tanzania

Ms Bitrina D. Diyamett, Senior Scientific Officer, Tanzania Council for Science and Technology (COSTECH), Dar es Salaam, and ATPS National Coordinator..

Dr. Paul Vitta, Retired Director, UNESCO Nairobi Office and Regional Bureau for Science in Africa. Member of ATPS Steering Committee, 1995–2001.

Uganda

Prof Joseph Obua, Faculty of Forestry and Nature Conservation, Makerere University, Kampala, Uganda, and ATPS National Coordinator.

Mr. Joshua Mutambi, Principal Industrial Officer, Department of Industry and Technology, Ministry of Tourism, Trade and Industry, Government of Uganda.

Prof. James Katorobo, Senior Consultant, Capacity Development Associates, Kampala.

Dr. Marios Obwona, Acting Executive Director, Economic Policy Research Centre, Kampala.

Professor Christine Dranzoa, Deputy Director, School of Graduate Studies and Research, Makerere University, Kampala.

Mr. Abraham Mwesigye Rutabatiina, Lecturer, Makerere University, and Researcher on Water Policy and Gaps, Makerere University, Kampala.

Ms. Harriet Pamara, Chairperson, Uganda Youth Association for Science, Technology and Innovation (UYASTI).

Ms. Hannifah Nakitto Kasule, Masters Student (Agroforestry), Makerere University, Kampala, and member of UYASTI.

Mr. Daniel Okello, Member and Treasurer of UYASTI, Uganda. He is also Coordinator of a local NGO.

Mr.Herbert Lwanga, Software Developer, and Member of UYASTI.

Zambia

Ms Charlotte M. Wonani, Lecturer, Development Studies Department, University of Zambia, Lusaka, Zambia, and ATPS National Coordinator.

Annex 4: Country Chapters, Coordinators and Contacts, and Chapter Resources and Activities

Table 4.1: Chapter countries, coordinators and contacts.

	Country Chapters	National Coordinators	Contacts/Survey
1	Botswana	Dr John Mothibi	Rasigan Maharajh. Failed.
2	Burkina Faso	Dr Benôit Kabore	ERNWACA; Workshop and Survey
3	Côte d'Ivoire	Dr Arsène Konan Kouadio	Missed ERNWACA; Workshop and survey.
4	Cameroon	Mr Sylvester Ndeso Atanga	ERNWACA; Workshop and Survey
5	Ghana	Dr George Owusu Essegbey	ERNWACA; Workshop and Survey
6	Kenya	No coordinator.	Amitav Rath
7	Lesotho	Dr. Spirit TLALI	Rasigan Maharajh
8	Mali	Dr Sidiki Gabriel Dembélé -	ERNWACA; Workshop and Survey
9	Nigeria	Prof Michael C. Madukwe	ERNWACA; Workshop and Survey
10	Nigeria	Prof Femi Olokesusi	ERNWACA; Workshop and Survey
11	Senegal	Dr Papa Alione Sarr Ndiaye	ERNWACA; Workshop and Survey
12	Sierra Leone	Mr Chris Squire	Missed Workshop. Survey only.
13	South Africa	Dr Rubin Pillay	Rasigan Maharajh
14	Tanzania	Ms Bitrina D. Diyamett	Amitav Rath. Survey
15	Uganda	Dr Joseph Obua	Amitav Rath. Survey
16	Zambia	Ms Charlotte M. Wonani	Rasigan Maharajh
	Benin	**Dr Roch L. Mongbo**	No contact. No survey.
18	Ethiopia	Dr. Markos Tibbo	No contact. No survey.
19	The Gambia	Mr Ernest R. Aubee	No contact. No survey.
20	Malawi	Dr Julius Mangisoni	No contact. No survey.
21	Mozambique	Eng. Lourino Alberto Chemane	No contact. No survey.
22	Swaziland	Dr Musa Dube	No contact. No survey.
23	Zimbabwe	Mr Benson Zwizwai	No contact. No survey.
24	Liberia	No representation or activity.	No contact.

This table provides for 23 countries listed by ATPS as having chapters. Nigeria has two chapters. Liberia has no coordinator, activities, or chapter.

Table 4.2: Funds Provided by ATPS to Country Chapters 2002-2007.

CHAPTER	Purpose: Chapter Activities	Year 2002	Year 2003	Year 2004	Year 2005	Year 2006	Year 2007	TOTAL BY CHAPTER
BENIN	Water & Environment working group meeting Biotechnology working group meeting Operating expenses Equipment purchases (computer & accessories) Honorarium for national coordinator				$4,800			$11,850
	Seminar on biotechnology as a follow up to the Regional Workshop on Biosafety and Intellectual Property Rights in Africa, held in Dakar, Sénégal from 13 to 15 March, 2006					$3,050		
	National Biotechnology Dialogue					$3,000		
	Finance and the Technological Development in Entrepreneurship in Africa: Challenges for Training Centres for the African Youth						$1,000	
BOTSWANA	§ Chapter registration § Chapter launch & researchers' workshop § Policymakers' workshop § Bi-annual newsletter production § Operational costs § Start up costs (computer, printer, furniture & fixtures)			$11,750				$11,750
BURKINA FASO	§ Two day meeting: roundtable on ATPS and dissemination workshop							$3,700
	§ Translation and related costs of leaflets and documents; photocopy							
	§ Honorarium for national coordinator				$3,700			
CAMEROON	§ Registration of Cameroon Chapter § Chapter creation and launch § Computer accessories and email account § Capacity building - research, methodology and peer review workshop							$25,580
	§ Media related activities § Operational costs § Honorarium for national coordinator	$5,500						
	§ Office set-up costs (furniture etc) § Briefing for policy makers (Yaoundé) § Research methodology workshop § Scientific Revival Day § Peer review of proposals § Publications (newsletter, information brochure) § Invitation of new members § General Assembly meeting § ATPS-Cameroon chapter launch § Operational costs § Honorarium for national coordinator		$8,180					
	§ Fundraising activities § Policymakers meeting § Call for research proposals § Scientific Revival Day							

	§ Operating expenses		$5,300		
	§ Purchase of Computer § Office operational costs § Youth week lecture § Math & Science Contest § African Scientific Revival Day			$6,600	
COTE D'IVOIRE	§ S&T Seminar to launch chapter				$12,810
	§ Peer Review Meetings for proposals submitted for Annual conference				
	§ Honorarium for national coordinator § Income generating activities	$5,950			
	§ Call for proposals § Africa Scientific Revival Day § Peer Review Committee § Operational costs § Honorarium for national coordinator		$4,000		
	Seminar on "La Biotechnologies: Enjeux pour l'Agriculture, la Santé et l'Environnement"				
	§ Office set-up costs (equipment &furniture)			$2,860	
ETHIOPIA	§ Conference, workshops and methodology seminar				$17,050
	§ Scientific Revival Day § S&T seminar for the private sector and policy makers				
	§ Publications § Radio programmes and roundtable discussion § Operational costs § Honorarium for national coordinator	$10,900			
	Preparation activities for the 2004 ATPS Annual Conference & Workshop held in Addis Ababa, Ethiopia				
	§ Panel discussion on GM Crops & the environment	$2,300			
	§ Meeting coordination activities § Scientific Revival Day § Honorarium for national coordinator		$3,850		
GHANA	§ Annual General Meeting				$11,545
	§ Training and peer review workshop § Scientific Revival Day § Roundtable conference on new technologies § Study tour of Cocoa Research Institute of Ghana § Publications § Operational Costs § Honorarium for national coordinator § Scientific Revival Day	$8,045			
	§ Chapter contract to print a Technology Policy Brief on "Nanotechnology - The Developments and Implications for Ghana			$3,500	
KENYA	§ Chapter operational costs				$5,920
	§ Call for and peer review of proposals § Proposal writing workshop § Workshop-seminar for parliamentarians § EAC round table meeting § Launch of quarterly newsletter § Review of PRSP § Chapter registration				

	§ Honorarium for national coordinator	$5,920			
LESOTHO	§ Roundtable with policymakers § Awareness/opinion seeking sessions (NGO and private sector)				$17,300
	§ Roundtable for Parliamentarians § ATPS-LSC newsletter (publishing) § Media related activities § Operational costs § Honorarium for national coordinator	$7,600			
	§ Coordination of parliamentary roundtable meeting and a research methodology workshop for ATPS Lesotho chapter members				
	§ Coordination of 2003 Annual Conference & Workshop				
	§ Proposal presentation workshops § ATPS-LSC newsletter § Honorarium for national coordinator § Science and Technology Awakening event meeting	$5,200			
	§ Operational expenses		$1,000		
	Support to the Department of Science and Technology during the Science, Engineering and Technology (SET) Week			$3,500	
MALI	§ Steering committee & preparatory meetings § Stakeholders workshop on state of S&T in Mali § Chapter launch § Honorarium for national coordinator	$4,950			$6,956
	Seminar on biotechnology as a follow up to the Regional Workshop on Biosafety and Intellectual Property Rights in Africa, held in Dakar, Sénégal from 13 to 15 March, 2006		$2,006		
MALAWI	§ Chapter operational costs § Sensitization workshops with stakeholders to revamp the Malawi chapter				$5,000
	§ Honorarium for national coordinator	$5,000			
MOZAMBIQUE	§ Operational costs				$5,800
	§ Strategic framework & chapter establishment costs				
	§ Peer review of research proposals § TV production with ministry § Honorarium for national coordinator		$5,800		
NIGERIA	§ Joint biotechnology forum with NABDA - peer review and dissemination workshop				$10,735
	§ Scientific Revival Day § Operational costs § Honorarium for national coordinator	$8,550			
	Scientific Revival Day			$2,185	
SWAZILAND	§ Seminar to re-launch chapter § Operational costs § Honorarium for national coordinator		$1,980		$8,280
	Dissemination Workshop on "Determination of the Use of Biotechnology in the Agricultural Industry in Swaziland: Implications for Policy Development"			$2,400	

	Facilitation the drafting of a Science and Technology policy in Swaziland.				$3,900		
TANZANIA	§ Office set-up costs (computer & accessories; printer; internet connection; furniture & other office accessories)						$43,950
	§ Workshop/seminar for parliamentarians § Methodology/peer review workshop § Scientific Revival Day § Operational costs § Honorarium for national coordianator		$12,850				
	§ Scientific Revival Day § Roundtable with policy makers § Newspaper articles § Honorarium for national coordinator			$4,500			
	National chapter office set-up				$9,000		
	Cluster Initiatives Pilot projects in Tanzania, Phase 1&2				$8,600		
	Cluster Initiatives Pilot projects in Tanzania, Phase 3					$9,000	
UGANDA	§ Office set-up (computer & accessories)						$33,611
	§ Call for research proposals § Scientific Revival Day § Roundtable for policy makers § Advocacy and awareness campaign § Poster and report production § Operational costs § Honorarium for national coordinator		$6,500				
	§ Call for research proposals § Research progress seminars § Scientific Revival Day § Advocacy & Awareness § Operational costs § Honorarium for national coordinator			$2,900			
	Scientific Revival Day				$2,011		
	Cluster Initiatives Pilot projects in Uganda				$4,550		
	Cluster Initiatives Pilot projects in Uganda (Phase 3)					$8,700	
	National chapter office set-up				$8,950		
	TOTAL BY YEAR	$13,100	$66,145	$29,950	$39,836	$57,506	$25,300	$231,837

Table 4.3: All activities listed in ATPS Documents 2002–2007.

	Year	Activity(ies)	Type of Activity	Chapter/ Secretariat	Source
1	2001	ATPS Annual Conference	Annual Conference	Secretariat	Newsletter No. 10
2	2002	ATPS Annual Conference in Abuja (Africa's Global Inclusion)	Annual Conference	Secretariat	Newsletter No. 11/12
3	2003	The 2003 Annual Conference and Workshop of an autonomous African Technology Policy Studies Network (ATPS) was held at the Sun Hotel in Maseru, Lesotho, from November 10 to 15, 2003.	Annual Conference	Secretariat	Annual workshop and conference Report
4	2003	ATPS Annual Conference in Food Security (Lesotho)	Annual Conference	Secretariat	Newsletter No. 14
5	2004	The ATPS Annual Conference and Workshop on Water and Environment, Addis Ababa, Ethiopia	Annual Conference	Secretariat	Annual report 2004
6	2004	Programme on Water and Environment Annual Workshop and Small Grants, December 2004	Annual Conference	Secretariat	Annual report 2004
7	2005	The 2005 Annual Conference and Workshop of an autonomous African Technology Policy Studies Network (ATPS) was held at the Sun n Sand Beach Hotel, Mombasa, Kenya from 28 November - 4 December, 2005.	Annual Conference	Secretariat	Annual workshop and conference Report
8	2006	ATPS/MCTM Annual Conference and Workshop held on 27 - 29 November, 2006	Annual Conference	Secretariat	Report of Annual Conference and Workshop
9	2002	Lesotho National Chapter February 2002	Meeting - National	Chapter	Annual Report 2002
10	2002	Cameroon National Chapter November 2002	Meeting - National	Chapter	Annual Report 2002
11	2002	Nigeria National Chapter (Essay Competition)	Meeting - National	Chapter	Annual Report 2002
12	2002	Ethiopia National Chapter	Meeting - National	Chapter	Annual Report 2002
13	2002	Policy workshop on Budgetary Allocation (Ghana)	Meeting - National	Chapter	Newsletter No. 11/12
14	2002	Roundtable Workshop on how to mainstream S&T in the PRSP (Tanzania)	Meeting - National	Chapter	Newsletter No. 11/12
15	2002	National Workshop on "Discussion of the 1st Draft of the National S&T Policy" (Lesotho)	Meeting - National	Chapter	Newsletter No. 11/12
16	2002	Consultative Workshop on the development of a curriculum for community polytechnics (Uganda)	Meeting - National	Chapter	Newsletter No. 11/12
17	2003	S&T Methodology and Policy Sensitization Workshop, Maseru, Lesotho, 20 June 2003	Meeting - National	Chapter	Annual Report 2003
18	2003	ATPS/IDEP Atelier de Formation sur la Méthodologie de Recherche Scientifique et Technologique et la Politique de la Planification, d'Analyse et de Mise en Application de la Science et de la Technologie Dakar, Sénégal, July 8-11.	Meeting - National	Chapter?	Annual Report 2003
19	2003	ATPS/RMRDC S&T Research Methodology and S&T Policy planning Analysis and Implementation Abuja, Nigeria, 30 September - 4 October 2003	Meeting - National	Chapter?	Annual Report 2003
20	2003	Report of the ATPS Media Luncheon/Workshop held on 15th August, 2003, Nigeria chapter	Meeting - National	Chapter	Annual Report 2003
21	2003	University Science and Technology Week: Cameroon Chapter	Meeting - National	Chapter	Annual Report 2003
22	2003	ATPS-Ghana Policy Roundtable Discussion	Meeting - National	Chapter	Annual Report 2003
23	2003	Media Luncheon (Nigeria)	Meeting - National	Chapter	Newsletter No. 14
24	2003	Ghana (Roundtable)	Meeting - National	Chapter	Newsletter No. 14
25	2003	IDEP Workshop (Senegal)	Meeting -	Chapter	Newsletter No. 14

26	2003	The National Chapter Awards	National Meeting - National	Secretariat ?	Annual Report 2003
27	2003	Training Seminar/Workshop on Science and Technology Policy Research Methodology, and S&T Sensitization, Policy Analysis and Implementation (Harare, March 26-29)	Meeting - National	Secretariat ?	Annual Report 2003
28	2004	Public Lecture Technological Innovation and Economic Renewal, Nairobi, July 2004	Meeting - National	Chapter	Annual report 2004
29	2005	Science, Engineering and Technology Exhibition (Lesotho)	Meeting - National	Chapter	Newsletter No. 18
30	2005	Ugandan Youth Forum and Association of S&T Innovation (Uganda)	Meeting - National	Chapter	Newsletter No. 18
31	2006	ATPS Côte d'Ivoire holds a Biotechnology debate	Meeting - National	Chapter	Newsletter No. 19
32	2006	ATPS-Senegal chapter hosts the Regional workshop on Biosafety and IPRS in Africa	Meeting - National	Chapter	Newsletter No. 19
33	2006	ATPS Co-hosts a Regional Media Training Workshop (Zambia)	Meeting - National	Chapter	Newsletter No. 20
34	2004	Field visit to Debre Zeit	Meeting - Other	Chapter?	Annual report 2004
35	2002	COMESA/SADC/ATPS Regional Workshop for Trade Negotiations on the Doha Development Agenda	Meeting - Regional	Secretariat	Newsletter No. 11/12
36	2002	ATPS and SciDev: Science Communication	Meeting - Regional	Secretariat	Newsletter No. 11/12
37	2003	The first African Ministerial Conference on Science and Technology, Johannesburg, South Africa, 4-7 November 2003	Meeting - Regional	Secretariat	Annual Report 2003
38	2004	ATPS/CTA/NEPAD Africa Regional Meeting on Science and Technology, September 2004	Meeting - Regional	Secretariat	Annual report 2004
39	2004	Collaborative event: ATPS/CTA/NEPAD Africa Regional Meeting on Science and Technology, September 2004	Meeting - Regional	Secretariat	Annual report 2004
40	2005	Regional Policy Summits on Integrating S&T (Nigeria)	Meeting - Regional	Chapter?	Newsletter No. 18
41	2006	ATPS Supports "Power up with ICT" Campaign	Meeting - Regional	Secretariat	Newsletter No. 20
42	2006	Pan-African Youth Forum on Science and Technology in Accra	Meeting - Regional	Secretariat ?	Newsletter No. 19
43	2006	Key Players in Eastern Africa discuss Policy-Making in Biotechnology, Trade and Sustainable Development in Jinja, Uganda	Meeting - Regional	Secretariat ?	Newsletter No. 19
44	2004	The African Technology Policy Studies Network (ATPS) Workshop for Science Writers/Reporters	Meting - Regional	Secretariat	Annual report 2004
45	2001	Small Scale Farmers' Adoptive Responses to Banana Biotechnology in Kenya	Paper	-	ATPS RESEARCH PAPER No.1
46	2001	Globalization, Markets for Technology and the Relevance of Innovation Policies in Developing Economies Dr. Sunil Mani	Paper	-	ATPS Special Paper # 2
47	2002	Policy-Induced Local Sourcing of Raw Materials and Technology Development in Nigerian Industry	Paper	-	ATPS Research Paper # 2
48	2002	Globalization and Technology: Africa's Participation and Perspectives Melvin Ayogu and Osita Ogbu	Paper	-	ATPS Special Paper # 1
49	2002	ICT Human Resource Development in Africa: Challenges and Strategies T.M. Waema	Paper	-	ATPS Special Paper # 10
50	2002	Application of ICTs in Africa: Development of Knowledge Workers in Centres of Learning	Paper	-	ATPS Special Paper # 11
51	2002	State of Science and Technological Capacity in Sub-Saharan Africa	Paper	-	ATPS Special Paper # 12
52	2002	Strengthening National Information and Communication Technology Policy in Africa: Governance, Equity and Institutional Issues	Paper	-	ATPS Special Paper # 13
53	2002	A Science Agenda From An African Perspective	Paper	-	ATPS Special Paper # 14
54	2002	Biotechnology in Sub-Saharan Africa: Towards a Policy Research Agenda John Mugabe	Paper	-	ATPS Special Paper # 3

55	2002	A Blueprint for Developing National ICT Policy in Africa, Projet Pour Le Développement d'une Politique Nationale de TIC En AfriqueClement Dzidonu	Paper	-	ATPS Special Paper # 5
56	2002	African Response to Communication Technology Revolution March 2002 G. Olalere Ajayi	Paper	-	ATPS Special Paper # 8
57	2002	Who Benefits from the New International Intellectual Property Rights Regime? And What should Africa Do? Ha-Joon Chang	Paper	-	TECHNOPOLICY BRIEF 1
58	2002	WHAT CAN BIOTECHNOLOGY DO FOR AFRICA? HOW CAN THE ASSOCIATED RISKS AND UNCERTAINTIES BE MANAGED? Norman Clark	Paper	-	TECHNOPOLICY BRIEF 3
59	2002	WHO NEEDS TECHNOLOGY POLICY?Ha-Joon Chang	Paper	-	TECHNOPOLICY BRIEF 4
60	2002	WHAT IS THE ROLE OF SCIENCE IN A GLOBALIZING WORLD? WHAT ARE THE IMPLICATIONS FOR AFRICA? Awele Maduemezia	Paper	-	TECHNOPOLICY BRIEF 6
61	2002	HOW CAN SCIENCE AND TECHNOLOGY IN AFRICA BE FORMULATED AND IMPLEMENTED? Osita Ogbu	Paper	-	TECHNOPOLICY BRIEF 7
62	2003	The ATPS phase V strategic plan	Paper	-	Annual Report 2003
63	2003	International Trends in Modern Biotechnology: Entry by and Implications for African Countries John Mugabe	Paper	-	ATPS Special Paper # 15
64	2003	Foreign Direct Investment (FDI), Technology Transfer, and Poverty Alleviation: Africa's Hopes and Dilemma Moses M. Ikiara	Paper	-	ATPS Special Paper # 16
65	2003	KEEPING HUNGER AT BAY: GENETIC ENGINEERING AND FOOD SECURITY IN SUB-SAHARAN AFRICA John Mugabe	Paper	-	TECHNOPOLICY BRIEF 5
66	2004	Research on "Assessment of Rural Water Supply Management in Selected Rural Areas of Oyo State, Nigeria" by Prof. A. S. Gbadegesin	Paper	-	Annual report 2004
67	2004	Research on "Policy Gaps Analysis: The case of community water and sanitation in Ghana" by Dr. Rose Mamaa Entsua-Mensah and Charlotte Engmann	Paper	-	Annual report 2004
68	2004	Research on "Stratégie de gestion durable des zones humides aux niveaux local et communal dans le département du Zou, Bénin pour le mieux être des riverains et la conservation de la biodiversité" by Dr. Roch Mongbo	Paper	-	Annual report 2004
69	2004	Research on "Reducing Pollution in Lesotho" by Deepa Pullanikkatil Sajith	Paper	-	Annual report 2004
70	2004	Research on "Small Scale Rainwater Harvesting for Combating Water Deprivation in a Peri-Urban Area of Lilongwe, Malawi" by Dr. Henry Raphael Mloza-Banda, Malawi	Paper	-	Annual report 2004
71	2004	Research on "Issues for Sustainability and Collective Action in the Management of Lake Water Resources: The case of Lake Tana, Ethiopia" by Dr. Dejene Aredo and Sewmehon Demissie	Paper	-	Annual report 2004
72	2004	The Role of Innovation Systems to the Development of Agro-Industry in Kenya, May 2004, Prof Lynn Mytelka	Paper	-	Annual report 2004
73	2004	CTA/UNU-INTECH Floriculture Case Study	Paper	-	Annual report 2004
74	2004	Reports From National Chapters	Paper	-	Annual report 2004
75	2004	How can Africa Benefit from Globalization?:Global Governance of Technology and Africa's Global Exclusion Banji Oyelaran-Oyeyinka	Paper	-	ATPS Special Paper # 17
76	2004	What is a Poverty Reduction Strategy Without Science and Technology? A Review of Science and Technology and Poverty Reduction Strategy Papers in Sub-Saharan Africa O. Akin Adubifa	Paper	-	ATPS Special Paper # 18
77	2004	An Assessement of Science and Technology Capacity building in Sub-Saharan Africa O. Akin Adubifa	Paper	-	ATPS Special Paper # 19
78	2004	Networking Technical Change and Industrialization:The Case of Small and Medium Firms in Nigeria Banji Oyelaran-Oyeyinka	Paper	-	ATPS Special Paper # 20
79	2004	Technology Transfer in a Globalizing World: Many Promises,	Paper	-	ATPS Special Paper #

		Lack of Responsibility, and Challenges for Africa M.H. Khalil Timamy			21
80	2004	Integrated Value Mapping for Sustainable River Basin Management: Economics, Ethics and Social Psychology Kevin C. Urama, Wendy Kenyon, Rob Burton and Jackie Potts	Paper	-	ATPS Special Paper # 22
81	2004	HOW CAN INNOVATION SYSTEMS AND INNOVATIVE CLUSTERS BE USED TO DEVELOP AFRICA? Osita Ogbu	Paper	-	TECHNOPOLICY BRIEF 10
82	2004	HOW CAN SCIENCE AND TECHNOLOGY POLICY AID NIGERIA'S RECONSTRUCTION? Osita Ogbu	Paper	-	TECHNOPOLICY BRIEF 5
83	2004	CAN AFRICA DEVELOP WITHOUT SCIENCE AND TECHNOLOGY? Osita Ogbu	Paper	-	TECHNOPOLICY BRIEF 9
84	2005	Systems and Implications for IPRs: Experiences from Southern and Eastern Africa	Paper	-	Conference and Workshop Report
85	2005	Strengthening Health Technology Policies Programme	Paper	-	Newsletter No. 18
86	2005	ATPS/CTA/CABI Flower Industry	Paper	-	Newsletter No. 18
87	2005	Assessment of Constraints in Technology Transfer System and Policies which Limit the Realisation of High Green Leaf Production in the Smallholder Tea Sector of the Kenya Tea Industry: An Empirical Analysis of Economic Efficiency and Supply of Tea Part II	Paper	-	Research Paper # 3
88	2005	SCIENCE & TECHNOLOGY AND FOOD SECURITY IN AFRICA African Technology Policy Studies Network (ATPS) Ministry of Communications, Science & Technology (MCST), Lesotho	Paper	-	TECHNOPOLICY BRIEF 11
89	2006	Integrated Value Mapping for Sustainable River Basin Management: Economics, Ethics and Social Psychology Kevin C. Urama, Wendy Kenyon, Rob Burton and Jackie Potts	Paper	-	ATPS Special Paper # 22
90	2006	Wastewater and Irrigated Agriculture Lessons Learned and Possible Applications in Africa	Paper	-	ATPS Special Paper # 23
91	2006	Imbalance in Water Allocation Stability and Collaboration within the Nile Basin Kinfe Abraham	Paper	-	ATPS Special Paper # 24
92	2006	Survey of Indigenous Water Management and Coping Mechanisms in Africa: Implications for Knowledge and Technology Policy Femi Olokesusi	Paper	-	ATPS Special Paper # 25
93	2006	Water Management and Conflicts in Africa: The Role of Knowledge and Technology Chris Huggins	Paper	-	ATPS Special Paper # 26
94	2006	Markets, Institutions and Agricultural Performance in Africa Julius Mangisoni	Paper	-	ATPS Special Paper # 27
95	2006	The Biotechnology Revolution and its Implication for Food Security in Africa Victor Konde	Paper	-	ATPS Special Paper # 28
96	2006	Why Africa has Fallen Short of Building Dynamic Agroprocessing Capabilities: Constraints, Options and Prospects Wellington A. Otieno and Ada Mwangola	Paper	-	ATPS Special Paper # 29
97	2006	Pilot Cluster Innovation Systems (Tanzania)	Paper	-	Newsletter No. 20
98	2006	WHAT IS SUI GENERIS SYSTEM OF INTELLECTUAL PROPERTY PROTECTION? Moni Wekesa	Paper	-	TECHNOPOLICY BRIEF 13
99	2006	RESEARCH PRIORITIES FOR KENYA'S CUT-FLOWER INDUSTRY: FARMERS' PERSPECTIVES	Paper	-	TECHNOPOLICY BRIEF 14
100	2006	WHAT DANGER LIES IN THE WTO - NAMA NEGOTIATIONS FOR AFRICA? Ha-Joon Chang	Paper	-	TECHNOPOLICY BRIEF 12
101	2007	Promotion of Public HealthCare Using African Indigenous Knowledge Hassan O. Kaya	Paper	-	ATPS Special Paper # 30
102	2007	The Place of Policy in Applied Health Care and Technology with Special Reference to African Traditional Medicine Daniel Noni Lantum	Paper	-	ATPS Special Paper # 31
103	2007	Emigration of Health Care Professionals - The Brain Drain	Paper	-	ATPS Special Paper # 32
104	2007	Biotechnology: Eastern African Perspectives on Sustainable Development and Trade Policy June 2007	Paper	-	Report from ICTSD and ATPS
105	2007	FORMULATION OF A NATIONAL ICT POLICY George Okado	Paper	-	TECHNOPOLICY BRIEF 15
106	2002	Africa's Scientific Revival Day	Scientifc Revivial Day	Secretariat	Newsletter No. 11/12
107	2003	Scientific Revival Day of Africa, Nigeria	Scientifc Revivial	Chapter	Annual Report 2003

			Day		
108	2003	Scientific Revival Day of Africa: Tanzania Chapter	Scientifc Revivial Day	Chapter	Annual Report 2003
109	2003	Scientific Revival Day in Africa: Uganda Chapter	Scientifc Revivial Day	Chapter	Annual Report 2003
110	2003	Scientific Revival Day (Nigeria)	Scientifc Revivial Day	Chapter	Newsletter No. 14
111	2003	Scientific Revival day of Africa (June 30, 2003)	Scientifc Revivial Day	Secretariat	Annual Report 2003
112	2004	Scientific Revival Day (Nigeria)	Scientifc Revivial Day	Chapter	Newsletter No.15
113	2004	scientific Revival Day (Uganda)	Scientifc Revivial Day	Chapter	Newsletter No.15
114	2004	The Scientific Revival Day of Africa, 30 June 2004	Scientifc Revivial Day	Secretariat	Annual report 2004
115	2005	The African Technology Policy Studies Network(ATPS) partnered with the African Academy of Sciences (AAS), African Centre for Technology Studies (ACTS), and International Service For the Acquisition of Agri-biotech applications (ISAAA) to commemorate the Scientific Revival Day on June 30th, 2005.	Scientifc Revivial Day	Secretariat	Annual workshop and conference Report
116	2006	Scientific Revival Day (Uganda)	Scientifc Revivial Day	Chapter	Newsletter No. 20
117	2006	Scientific Revival Day (Nigeria)	Scientifc Revivial Day	Chapter	Newsletter No. 20
118	2005	Youth leaders from national research institutions, universities and non governmental organizations (NGOs) from 21 countries in Africa met in Nairobi, Kenya from June 20-23, 2005 to deliberate on strategies for tapping the potential of science, technology and innovation (ST&I) in agri-food chains to create wealth and employment for youths in Africa.	Youth Congress	Secretariat	Youth Congress report
119	2006	THE 2ND AFRICAN REGIONAL YOUTH CONGRESS ON SCIENCE AND TECHNOLOGY Food Security and Health for Sustainable Development in Africa 26 –28 JUNE 2006 LA PALM BEACH RESORT ACCRA, GHANA	Youth Congress	Secretariat	Congress Report
120	2006	Annual African Youth Congress Debates in the Integral Role of Science, Technology and Innovation in Development	Youth Congress	Secretariat	Newsletter No. 19

Annex 5: ATPS Financial Resources and Allocations

Table 5.1 – 5.3 ATPS Expenditures

African Technology Policy Studies Network (ATPS) Expenditure 2002-2006						
(source: audited statements)	Program Expenditure					
	2002	2003	2004	2005	2006	Total
	15 months					
Personnel costs	140,628	165,966	181,507	280,668	262,156	1,030,925
Travel, accommodation and subsistence	318,219	315,111	180,291	323,476	352,479	1,489,576
Grant/awards to individuals	123,631	367,526	-9,539	0	0	481,618
Grants to organisations	104,845	85,641	25,010	100,529	33,218	349,243
Occupancy and office	19,211	6,612	41,849	51,196	31,384	150,252
Conference and meetings	99,013	16,201	29,439	64,678	76,351	285,682
Contracted service	74,418	39,982	17,647	32,245	54,648	218,940
Communications	32,540	26,515	18,423	29,227	12,678	119,383
Publications	39,926	39,575	14,055	28,218	23,797	145,571
Honorarium	16,857	27,768	7,500	62,600	12,999	127,724
Depreciation	7,632	0	0	0		7,632
Stationery and supplies	12,441	12,076	4,069	6,894	2,417	37,897
Audit fees	0	0	3,350	3,350		6,700
Staff training	7,526	1,061	1,039	2,153		11,779
Insurance	2,520	5,852	3,146	173		11,691
Amortisation	0	0	0	0		0
Subscriptions	659	0	0	567	626	1,852
Total Expenditure	**1,000,066**	**1,109,886**	**517,786**	**985,974**	**862,753**	**4,476,465**

African Technology Policy Studies Network (ATPS) Expenditure 2002-2006						
(source: audited statements)	General administration					
	2002	2003	2004	2005	2006	Total
	15 months					
Personnel costs	131,979	112,757	140,995	125,369	107,539	618,639
Travel, accommodation and subsistence	1,346	11,302	18,151	1,707	2,421	34,927
Grant/awards to individuals	0	0	0	0	0	0
Grants to organisations	0	0	0	0	0	0
Occupancy and office	55,034	69,488	33,005	22,897	45,210	225,634
Conference and meetings	0	295	194	1,163	103	1755
Contracted service	0	0	0	5,174	1,256	6430
Communications	17,676	19,611	14,146	7,327	7,267	66,027
Publications	1,871	288	105	2,044	0	4,308
Honorarium	0	86	0	1,000	0	1,086
Depreciation						
Stationery and supplies	3,992	3,461	1,689	1,346	3,397	13,885
Audit fees	6,700	6,700	3,350	3,350	7,900	28,000
Staff training	0	1,327	1,446	1,469	1,168	5,410
Insurance	770	785	1,426	1,109	2,189	6,279
Amortisation	7,138	19,488	20,964	17,103	11,791	76,484
Subscriptions	495	1,553	1,574	1,522	877	6,021
Total Expenditure	**227,001**	**247,141**	**237,045**	**192,580**	**191,118**	**1,094,885**

African Technology Policy Studies Network (ATPS) Expenditure 2002-2006							
(source: audited statements)	Total Expenditures						
	2002	2003	2004	2005	2006	Total	%
	15 months						
Personnel costs	272,607	278,723	322,502	406,037	369,695	1,649,564	29.61
Travel, accommodation and subsistence	319,565	326,413	198,442	325,183	354,900	1,524,503	27.36
Grant/awards to individuals	123,631	367,526	-9,539	0	0	481,618	8.64
Grants to organisations	104,845	85,641	25,010	100,529	33,218	349,243	6.27
Occupancy and office	74,245	76,100	74,854	74,093	76,594	375,886	6.75
Conference and meetings	99,013	16,496	29,633	65,841	76,454	287,437	5.16
Contracted service	74,418	39,982	17,647	37,419	55,904	225,370	4.05
Communications	50,216	46,126	32,569	36,554	19,945	185,410	3.33
Publications	41,797	39,863	14,160	30,262	23,797	149,879	2.69
Honorarium	16,857	27,854	7,500	63,600	12,999	128,810	2.31
Depreciation	7,632	0	0	0	0	7,632	0.14
Stationery and supplies	16,433	15,537	5,758	8,240	5,814	51,782	0.93
Audit fees	6,700	6,700	6,700	6,700	7,900	34,700	0.62
Staff training	7,526	2,388	2,485	3,622	1,168	17,189	0.31
Insurance	3,290	6,637	4,572	1,282	2,189	17,970	0.32
Amortisation	7,138	19,488	20,964	17,103	11,791	76,484	1.37
Subscriptions	1,154	1,553	1,574	2,089	1,503	7,873	0.14
Total Expenditure	**1,227,067**	**1,357,027**	**754,831**	**1,178,554**	**1,053,871**	**5,571,350**	100.00

	Table 5.4: Donor Contributions to ATPS 2002-2007								
Category	Donor	2002	Restated 2002	2003	2004	2005	2006	2007	Total
Major	Dutch Government	400,000	400,000	600,000	157,613	543,698	491,538	891,800	3,084,649
	International Development Research Centre	428,629	431,303	202,317	116,790	220,155	107,048		1,077,613
	Rockefeller Foundation	225,000	175,000	167,075	13,521	85,780	252,659		694,035
	Ford Foundation		71,505	78,495			-		150,000
	SIDA/SAREC					223,733	157,724	247,000	628,457
	African Development Bank				223,676		32,820		256,496
	CTA Technical Centre for Agriculture				84,271	99,378			183,649
	Carnegie Corporation	153,761	153,761						153,761
	Federal Republic of Nigeria, Ministry of Science and Technology	50,000	50,000			84,000		84,000	218,000
	Finland						57886	2600	60486
Major Total		1,407,390	1,281,569	1,047,887	582,350	1,256,744	1,099,675	1,225,400	6,493,625
Minor						-			-
	OPEC Fund	40,000	40,000	10,000	-				50,000
	COMESA	49,423	49,423	-					49,423
	Coca-Cola EA	37,358	37,358	-					37,358
	KRA-VAT refunds				16,531	9,459			25,990
	UNESCO			10,000	15,000	-			25,000
	World Bank (Infodev)			9,479					9,479
	NEPAD					8,000			8,000
	Special collaborative projects			5,363	-	2,114			7,477
	Miscellaneous income					5,752			5,752
	African Institute of Economic Development and Planning				5,000	-			5,000
	Other			2,045				87,000	89,045
	Interest income	2,245	2,245		- 1,515	750			1,480
Minor Total		129,026	129,026	36,887	48,537	25,751	123,388	87,000	450,589
Grand Total		1,536,416	1,410,595	1,084,774	630,887	1,282,495	1,165,177	1,312,400	6,886,328

Notes: The ATPS Annual Reports do not provide the full data and could not be used to create an over all table indicating all income by source and expenses by expenditure head. Hence the reports by Spearhead, the actual audited statements of the organisation and the statement to Sida are used to construct the tables 5.1 to 5.4. This table providing the overall picture was only available in February 2008. It proved difficult and time consuming to construct the resources made available by ATPS by purpose, theme and country.

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