



# ATPS NEWS

African Technology Policy Studies Network

*ATPS encourages user need-oriented research, dissemination, training and close interaction between researchers, decision makers and research end users.*

## From the Co-ordinators Desk

**L**ightening advances are being made in telecommunications, and Sub-Saharan Africa (SSA) runs the risk of being not only marginalized but completely left out of the enormous benefits they promise for the global economy. Satellite communications and fibre optics complemented by phenomenal advances in digitisation are driving the cost of telephone calls down most rapidly. There is increasing pressure to bring down the cost of the local loop (to service the local subscriber) so that the benefits from the technological advances in satellite, fibre optics and digitisation can be more widely enjoyed.

Most parts of SSA have the singular reputation for the most prohibitive telephone tariffs in the world. As long as this situation persists, SSA will be by-passed by the globalization of trade and investment now taking place.

To reap the benefits of the revolution in information technology the vital medium - telephony - must become more widely available to the populace both geographically

and demographically. Telephones to population ratio in SSA range from 1:21 (Botswana) to 1:180 (Nigeria). In contrast, telephones are accessible to over 95% of the US population. The comparable figures in other less developed countries outside Africa are as high as 35%. Secondly, telephone calls must be cheap.

It is hard to argue for the development of telecommunications in the context of, a continent plagued by far more devastating problems like starvation, poor shelter, lack of potable water and endemic disease vectors that threaten the very survival of people. However, it is important to understand the critical link between telecommunications and development and therefore, the long-term solution to SSA's problems. The benefits span every facet of life including business, (fax links, computer and teleconferencing) teleworking, job search and immigration, marketing, education, information dissemination and technological development. In today's world, the value of an economy consists in its educational stock and the capacity of its people to learn quickly. That learning depends and is facilitated by its investment in telecommunications, among other things. Without trying to prioritize the various areas requiring more concerted attention, we believe that SSA's leaders must give the development of telecommunications the priority it deserves because much of the future development of the world is so inextricably tied to the advancement of telecommunications globally. It is an area in which Africa cannot continue to be unconcerned spectators.

To be active participants Africa must terminate its inefficient telecommunications systems by exploring the feasibility of:

- \* investing in state-of-the art telecommunications infrastructure and discarding obsolete switching gears and wirelines for satellite radio and wireless equipment;
- \* breaking the monopoly and inefficiency of the traditional Post and Telegraph (P&T) parastatals by subjecting them to competition through licensing international simple resale (ISR) operators;
- \* separating the regulatory functions of the P&Ts from their operational functions;

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- \* opening infrastructure development to free competition, rather than clinging to Government monopoly of these in the face of stringent budgetary constraints;
- \* unrestricted and complete interconnection of both networks and services;
- \* seeking uniformity in standards to eliminate proliferation of standards in equipment and peripherals; and
- \* making deliberate and concerted effort to improve radically the availability and reliability of electricity supply which is the most important vehicle to carry telecommunication to more users.

Researchers in the ATPS network can make important contributions to these efforts if they can choose any of these areas as a focus for S&T policy research to ensure that their work feeds into dire areas of need for objective, and unambiguous data for policy action.

## Evaluation of ATPS

At its fourth meeting held in Accra, Ghana the steering committee decided that evaluators be appointed to evaluate the ATPS networking, its objectives, mission and mandate in the context of the past. Prof. Daniel Chudnovsky (lead consultant) and Prof. Lydia Makhubu were contracted in March, 1996 to evaluate the Network bearing in mind the historical evolution of the ATPS network from its forerunners. The final report is expected early August, 1996.

## Fifth Steering Committee Meeting

The ATPS Steering Committee held its 5th Meeting from 12-13th May 1996 in Nairobi, Kenya.

## Funded Research Projects

At its 5th Meeting, the Steering Committee approved the following research proposals:

- (i) **Adeyinka, F. M.** "Technological Response of Electronic Firms to Telecommunications Development in Nigeria".
- (ii) **Afonja, A. A.** "Engineering Education for Industrial Development: Comparative Studies of Nigeria, Ghana, and Zimbabwe".
- (iii) **Ezeh, D. N.** "Gender Differences in Small-Scale Rice Farmers: Access to Technological Inputs and its Implications for Output in Enugu State of Nigeria".
- (iv) **Masanya, W. and Akinboade, O.A.** "Small and Medium Scale Enterprise Viability Under Conditions of Conventional Energy Deficiency: The Case of Botswana".
- (v) **Mbanefoh, N.** "Sustaining Existing Rural Women Small Enterprises in Nigeria: A Case Study of Palm Oil Processing".
- (vi) **Olusegun, H. D.** "The Technological Impact of NALDA on Agricultural Productivity in Nigeria: The Case of Kogi State".
- (vii) **Wagah, A.** "Technology Transfer: Socio-Economic Implications for Women in Agricultural Production and Home Economics in Kenya".

The proposals considered were those which had been presented at the second Annual Workshop in Ghana but were referred back to the authors for major revision. The committee also approved a proposal by Dr. Esther Njiro to complete the research entitled *The Gender Variable in Agricultural Technology: A Case Study of Rural Farmers in Machakos District, Eastern Kenya*, which was started by the late Ms. Wilhemina Oduol.

## Clustering of ATPS Projects

In line with the ATPS objective of building a continuous interactive process of knowledge diffusion by fostering linkages among researchers and between researchers and the end-users, the Steering committee approved a new method of clustering ATPS projects. This would involve:

- (a) Clustering existing and new projects/proposals on the basis of:
  - (i) the existence of one or two similar project proposals;
  - (ii) the strength of the researchers; and
  - (iii) their interest in the subject of research.
- (b) Joint collaboration of researchers in the same or different countries. The following clusters were proposed:
  - (i) industrial clusters;
  - (ii) NGO's and their impact on technological capability and gender issues;
  - (iii) new and emerging technologies:
    - solar energy;
    - telecommunications; and
    - biotechnology.
  - (iv) low cost building materials.

## ATPS PROGRAMME OF EVENTS

	<u>Activity</u>
June 30	Deadline for submission of research proposals for October 1996 consideration.
July 1 - 20	Co-ordinator's initial review of proposals and sending of comments for revision.
July 21 - 25	Co-ordinators travel to Zimbabwe to prepare for 3rd Annual Workshop.
August 30	Deadline for receipt of revised proposals for 1996 consideration.
September 15	Notification of participants in the 3rd Annual Workshop in Harare.
October 19 - 20	5th Meeting of ATPS Steering Committee.
October 21 - 26	3rd ATPS Annual Workshop.
November 30	Deadline for notification of ATPS October 1996 grants recipients.
December 20	Deadline for receipt of revised proposals for 1996 grants.



The details of the clustering process will be available at the Third Annual Workshop from 21st-26th October, 1996.

The Steering Committee recommended that the following three groups of proposals be clustered together :

#### **Group 1**

**Kashinje, S. P.** "Solar Technology in Tanzania: A Study of the Needs and Availability of Solar Thermal Technology (Solar Water Heating, Solar Cooking and Solar Crop Drying)"

**Mandishona, G and J. Foley.** "Field Testing Comparison and Market Assessment of Three Thermal Power Generators and Policy Implications for their Dissemination".

#### **Group 2**

**Soludo et al.** "The Aba and Nnewi Technological Phenomenon: A Study of the Dynamics of Copy and Indigenous Technology in Nigeria".

**Akinbinu, A.F.** "Industrial Clusters and Technical Change in Eastern Nigeria: Small and Medium Firms in Aba, Nnewi and Onitsha".

#### **Group 3**

**Frempong, G.** "Study of Available Local Building Material Technologies in Rural Housing Sector".

**Davies, V.A.B.** "Structural Adjustment and the Substitution of Indigenous Technology among Small and Medium Scale Enterprises in Sierra Leone."

### **Focal Point Appointments**

The Steering Committee appointed the following focal points to replace the existing ones;

<i>Country</i>	<i>New Focal Point</i>
Gambia	Mr. O. Jammeh
Kenya	Mr. A. R. Gacuhi
Ethiopia	Mr. G. Yemeneh
Tanzania	Dr. S. Rugumamu
Lesotho	Prof. Z.A. Matsela
Swaziland	Dr. M. A. Dube
Botswana	Dr. W. Masenya

### **1st Biennial Conference of ATPS**

The Steering Committee postponed the first Biennial Conference of ATPS which had been scheduled for 27-28th September, 1996. The conference will be held early 1997. The theme remains the same i.e. "Revitalizing Small and Medium Enterprises in Sub-Saharan

**Africa: Technology Initiatives".** The Secretariat has so far received five papers for the conference. ATPS will welcome more papers from any scholar which will contribute to a better understanding of how technology can help the revitalization and global competitiveness of SME's, and how S & T policy can help the process. Papers must be received by ATPS secretariat by 1st October, 1996.

#### **Dates and Venue of the Third ATPS Annual Workshop**

The third annual workshop would be held in Harare, Zimbabwe from 21st - 26th October 1996

### **Final Reports**

The following six projects funded by ATPS, have been completed and are under review by the secretariat:

1. **Bamiro, O. A.** "SAP-Induced Policies and Development Finance Institutions: Impact on Technological Development".
2. **Brew-Hammond, A.** "Electric Power Utilities and Technological Capacity-building in Sub-Saharan Africa: the Case of Volta River Authority, Ghana".
3. **Kayode, M.O; Oyejide, T.A. and Soyede, A.** "Policy Induced Local Sourcing of Raw Materials and Technology Development in Nigerian Industry".
4. **Madukwe, C. and Ayichi, D.** "Issues in Agricultural Technology Transfer Policy to Farmers in Nigeria: A Study of Yam Minisett Technology".
5. **Ogun et al.** "Technological Dynamism and Export Performance: A Study of Nigeria's Textile Industry".
6. **Oyeyinka, O.** "Technology and Institution for Private Small and Medium Firms: the Engineering Industry in Nigeria".

### **Methodological Workshop**

The Kenya Chapter of ATPS, held a one-day methodological workshop on 10th May, 1996 in Nairobi. Over 30 participants drawn from universities, research institutes and the private sector attended the workshop. The ATPS Co-ordinator and Prof. Lynn Mylelka( a member of the Steering Committee) were resource persons at the workshop.



Participants at the Kenyan Methodological Workshop, 10 May 1996 held in Nairobi, Kenya

## Publications

The secretariat is working on updating the ATPS grants brochure and the production of three executive summaries. In the working papers series the following are expected to be ready shortly:

- i) Irrigation in the Tuli Block, Botswana Water Conservation Techniques or Optimal Strategies? by I.N. Mazonde
- (ii) Endogenous Technology Capacity and Capability Under Conditions of Economic Policies of Stabilisation and Structural Adjustment by S.E. Chambua

- (iii) Agricultural Technology in Sierra Leone by C Squire
- (iv) Technology and Urban Women in the Informal Sector in Nigeria by R. Soetan
- (v) The Effectiveness of Agricultural Research and Extension in Sierra Leone by A.K. Lakoh

## Contributions

ATPS NEWS welcomes short articles on the activities of the network in member countries or on issues relevant to the network and suggestions for improving the network and the newsletter.





Participants at the Nigerian Dissemination Workshop 20-21 June 1996 held in Ibadan, Nigeria

## Dissemination Workshop

The Nigeria Chapter of ATPS, organised a two-day dissemination workshop at NISER, Ibadan from 20 - 21 June, 1996 for the five completed projects from Nigeria. It was attended by over 70 participants from industry, government, research institutes, universities and some international organisations. The keynote address was given by the President of the Nigerian Academy of Sciences, Prof. Awele Maduemezia.

## ATPS Donors Increasing

The Netherlands Ministry of Foreign Affairs has agreed to provide 60% of the funds required for the network research project: "Technological capabilities in Sub-Saharan Africa in the Context of a Changing Policy Environment." The Ministry (DGIS) has also given firm indication to provide core funds to ATPS for the next three years provided that the on-going evaluation is positive, and

the governance structure of ATPS conforms to their policy of empowering the South.

## Contacts

ATPS has expanded its international contacts in recent months. The most important contacts developed are with the European Commission's Directorates General charged with Science and Technological Co-operation with developing countries (DG12, DG8 and DG1). These contacts were initiated at the recently concluded International Workshop on the European Science and Technology Policy for Development, held in Leeuwenhorst, Netherlands, 12 - 13 June, 1996.

## Sad Loss

We regret to announce the passing away of one of the most prolific researchers in ATPS network, Prof. M.S.D. Bagachwa from Tanzania. He died on Easter Monday, April 8, 1996. May His Soul Rest in Peace.