



Workshop Conclusions
3rd Meeting of the Advisory Committee on Science and Technology
for ACP Agricultural & Rural Development
CTA Headquarters
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Background:

The mission of the Technical Centre for Agricultural and Rural Cooperation (CTA) is to strengthen information and communication management capacities of ACP agricultural and rural development organizations. It is also charged with policy and institutional capacity development. Consequently, CTA is committed to enhancing the policy dialogue on Science and Technology in pursuit of these goals.

The Centre convened the 3rd meeting of the Advisory Committee on Science & Technology (S&T) for ACP Agricultural and Rural Development from 23 – 26 November 2004 at the CTA Headquarters in Wageningen, The Netherlands. This meeting built on the first and second meetings of the Informal Working Group on Science and Technology which met in Cape Town, South Africa in 2001 and in Ede, The Netherlands in 2003. The theme for the meeting was *“Enhancing the S&T Policy Dialogue / Strengthening the Agricultural Science, Technology and Innovation System”*.

Workshop Objectives:

The workshop objectives were:

- To update participants on developments which had taken place since the first and second meetings of the ACP Informal Working Group (IWG) on Science and Technology, reflect on scientific developments and related policy issues which impact on ACP agriculture, review the status and Terms of Reference of the Advisory Committee on S&T for ACP Agricultural and Rural Development and chart the way forward for 2005.
- To deliberate on the methodological framework for analyzing the National Agricultural Science, Technology and Innovation (ASTI) systems, review the results of the ASTI case

studies conducted in Cameroon, Jamaica, Kenya, Papua New Guinea, Senegal and South Africa and make recommendations for improving the methodology and finalizing the reports.

- To review initiatives, models and experiences which had been proposed and or tested for improving agricultural productivity through the application of S&T and identify strategies which can be piloted in 2005 in selected ACP countries for bridging the gaps in the Agricultural Science, Technology and Innovation System in support of ACP Agricultural Development.
- To review the progress of CTA's Science and Technology Strategies programme including the "Knowledge for Development" website and share ideas and experiences for determining additional strategies for improving the ACP S&T policy dialogue and for incorporating Science and Technology in ACP policy formulation to enhance the performance of ACP agriculture.

Expected Outcomes:

The expected outcomes were:

- Methodological framework for analyzing the agricultural science, technology and innovation systems in ACP countries reviewed and modified if necessary.
- Results of the ASTI case studies in selected ACP countries and strategies for strengthening the ASTI systems evaluated and a plan of action developed using a case study approach for validating selected approaches for strengthening the ASTI systems.
- S&T Strategies for improving agricultural productivity in ACP countries reviewed.
- Status and function of the ACP Advisory Committee on S&T for ACP Agricultural and Rural Development reviewed and additional strategies for enhancing the ACP Science, Technology and Innovation Policy dialogue for agricultural and rural development elaborated
- CTA's S&T Strategies Programme 2004/2005 reviewed by delegates.

Meeting Highlights:

A summary of the main elements of the meeting is presented. The expert presentations were clear and discussions during plenary and working group sessions were lively. The working groups were thorough in their analysis and review of the issues that were presented and made recommendations to advance the ST&I processes. However, members noted that they were constrained by the time given for deliberation during working group sessions.

Summary of Day 1 - Realizing the Potential of ACP Agriculture / ST&I Issues in Perspective

The meeting was opened by Mr. Carl B. Greenidge, Director, CTA. Mr. Thierry Doudet, Head, Information & Communication Management, Skills & Systems Department, presented the workshop objectives and Ms. Judith Ann Francis, Senior Programme Coordinator, S&T Strategies, introduced the participants. The following issues were explored: concepts and issues related to the innovation systems framework; the programme and operations of the International Society for Horticultural Science (ISHS), developments in remote sensing and related technologies and the rationale and status of the International Treaty on Plant and Genetic Resources for Food and Agriculture (PGRFA) and their implications for ACP agricultural and rural development. The presentations and recommendations made by Professor Banji Oyeyinka, United Nations University / Institute for Technologies (UNU/INTECH), Dr. Looney, International Society for Horticultural Science (ISHS), Dr. Harold Annergan, University of Annergan and Dr. Gerald Moore, IPGRI were noted and discussed during the working group session and plenary.

Re the ISHS, the meeting noted that horticultural commodities are of extreme importance to ACP countries and as such the proposals made by the ISHS were timely. The meeting agreed with the recommendations as presented by ISHS and proposed that consideration be given to establishing a collaborative agreement between the CTA and the ISHS to benefit the ACP region. It was proposed that this agreement should serve as a model for CTA collaborative agreements with other international scientific organizations.

The following priorities were identified for consideration by CTA subject to the successful completion of the collaborative agreement between the CTA and the ISHS. They are:

- Support ISHS international symposia that are to be held in ACP countries.
- Sponsorship of ACP nationals to attend ISHS international conferences in other countries.
- Promotion of ISHS activities in CTA related information products namely the CTA websites and SPORE, thereby serving to catalyze the process of greater participation of ACP countries in the ISHS.
- Subsidizing the cost of institutional membership in ISHS for ACP institutions.

Re the International Treaty on PGRFA, the meeting recommended that:

- CTA promotes the case for ACP countries to ratify the International Treaty on PGRFA before the 1st meeting of the Governing Body of the Treaty.

- CTA liaises with IPGRI, as a priority, to obtain the model cabinet submission for dissemination to ACP countries for their consideration, adoption and follow-up as needed.
- CTA co-hosts regional training on the International Treaty, in collaboration with FAO & IPGRI
- All ACP countries should be sensitized of the need to review legislation and upgrade / update if necessary to ensure compliance with the international agreement.

Re Remote Sensing, the meeting noted:

- The constraints faced by ACP countries with respect to optimizing the use of technologies which were mainly; lack of technical capacity, funding and awareness of the subject and agreed that there was need for “ground truthing” through the conduct of selected case studies, which include financial analysis, to demonstrate to policy and decision makers and other stakeholders of the relevance and applicability of remote sensing to ACP agricultural development.
- That sustainable capacity building initiatives are needed in the ACP region and the need to focus on building capacity in universities and research institutes if training programmes are to be of long term benefit to the countries.

The meeting recommended that CTA gives priority to:

- Bringing the meteorological and agricultural experts together to dialogue on collaboration in remote sensing for ACP agricultural development through a series of expert consultations and conferences.
- Publicizing case studies of the successful use / application of remote sensing in ACP and other developing countries.
- Publishing the dossiers on Remote Sensing and Management Information Systems that had been commissioned by the CTA on the Knowledge website <http://knowledge.ct.int/> as a matter of urgency and building a common interest group using the website.

Summary of Day 2 - Agricultural Science Technology and Innovation Systems in Selected ACP Countries

The meeting reviewed the methodological framework for the conduct of the Agricultural Science Technology and Innovation (ASTI) case studies as was presented by Professor Banji Oyeyinka, United Nations University / Institute for Technologies (UNU/INTECH) and the results of five country case studies as presented by the professionals from selected ACP institutions: Institute for Agricultural Research and Development (IRAD) –

Cameroon; African Technology Policy Studies Network (ATPS) – Kenya; Senegal Institute for Agricultural Research (ISRA) – Senegal; National Council for Science and Technology (NCTS) – Jamaica and National Agricultural Research Institute (NARI) – Papua New Guinea. The meeting also noted the presentation by Professor Rudy Rabbinge and deliberated on the S&T Strategies as proposed by the InterAcademy Council for improving agricultural productivity in Africa.

Re the ASTI Methodological Framework and results of the ASTI case studies, the meeting noted:

- The range of actors in an agricultural, science technology and innovation (ASTI) system and concluded that the key indicator of the success of the ASTI system is how the actors perform as a dynamic whole and not the individual successes of each of the actors.
- Science and Technology are important components of innovation systems and the work of the related S&T institutions will be more focused and have more impact if conducted within the innovation systems context.
- The importance of national agricultural research institutions (NARI's) in the system and the need for innovation to be demand driven
- The need to empower all the actors to facilitate the development of the ASTI system if there is to be a positive impact on agricultural development.
- The need for the conclusions of the studies to be more in line with the results and for guidelines to be presented for policy and decision makers.
- The need to cross-reference the lessons learned including the positive impact on the change in behaviour of institutions that were involved in the studies.
- The Advisory Committee on Science and Technology for ACP Agricultural and Rural Development can contribute to enhancing understanding of the innovation systems framework and promotion of ASTI systems in ACP member countries.

The meeting recommended that:

- The ASTI case studies should identify the reasons for the weak / strong linkages identified in the case studies as there may be no need for strong linkages among certain actors at various stages in the innovation process.
- The ASTI methodology and case study reports be finalized, peer reviewed, published and widely disseminated.

Re the S&T Strategies proposed by the **InterAcademy Council**, the meeting noted that:

- There was need for an integrated approach to agricultural development in Africa and that the four strategies that were proposed for improving farming systems were not new. It was further noted that the focus should not be on improving agricultural productivity alone without proposing S&T strategies for improving post-harvest handling, processing and marketing.

- Improvements in soil fertility and reduction in land degradation cannot be achieved in the short-term without adequate attention being paid to soil conservation practices and the adoption of sound water catchment programmes.
- Introduction of mechanical power without significant capacity building in the short run can lead to further land degradation.
- The case for focussing on pilot programmes that had the highest opportunity for impact but suggested that these should be implemented within the context of the existing priorities and programmes that have been identified at the sub-regional level in Africa.
- Technology options can make a difference; the need for building impact-oriented research, knowledge and development institutions; creating and maintaining a new generation of agricultural scientists and markets and policies to make the poor prosperous and food secure and recommended that the latter be given the highest priority.

The meeting recommended that:

- CTA in collaboration with the Advisory Committee organizes a special meeting for Ministers responsible for Science and Technology in collaboration with other stakeholders so that there could be greater emphasis and urgency for improving research in the ACP region.
- The Advisory Committee reviews the proposed IAC strategies to ensure that: the farming systems proposed are in keeping with customs and traditions; a holistic approach is adopted to ensure that systems that are implemented are sustainable and supported by appropriate, advisory, capacity building and communications systems including appropriate weather forecasting and the promotion of ongoing short-term and long-term social programmes to slow down population growth and contribute to alleviating poverty.

Summary of Day 3 - Strengthening ACP Science Technology & Innovation Systems / Bridging the GAP

The meeting reviewed several approaches for bridging the gap in the ASTI systems - financing mechanisms, involvement of farmers and strategies for improving information and communication flows based on the presentations made by Dr. Prem Bindraban, Wageningen UR Plant research International B.V., Ir. Willem Hemskerk and Dr. Floris van der Pol, Royal Tropical Institute for Agriculture (KIT), Dr. Dirk Pottier, EU Commission / International Development Cooperation Programme, Dr. Roger Day, CAB International and Mr. Ralph von Kaufmann, Forum for Agricultural Research in Africa. During working groups sessions the delegates conducted an in-depth analysis of Norman

Clarke's paper on "Innovation Systems, Institutional Change and the New Knowledge Market: Implications for Third World Agricultural Development". (UNU/INTECH, December, 2001).

The meeting:

- Noted that there are problems in each approach for bridging the gap among actors but the greatest challenge lies in improving information and knowledge flows through improving the communication channels within a group of actors and among the various actors in the ASTI system. Noted that communication flows can be improved through dialogue and through participation of all actors in the process.
- Welcomed the presentation by EU/INCO-DEV and embraced the opportunity to build the ACP/EU S&T dialogue with the EU institution.
- Noted the research priorities for international S&T cooperation with INCO partner regions under Framework Programmes 6 & 7, the support to interdisciplinary research and the recommendation that ACP national and regional S&T programmes must be prioritized and reflected in the national indicative programmes if the countries are to benefit from the funding available. Members were encouraged by the opportunities available.
- Noted the differences between EU-DG/DEV financing mechanisms and the EU/INCO programme and the financing opportunities there-in.
- Welcomed the presentation on the Building African Science and Institutional Capacity (BASIC) initiative to strengthen tertiary agricultural education and endorsed the development of the proposal.
- Noted the disillusionment with the role and functioning of R&D institutions at both the national and international levels and the lack of connectivity between research outputs and economic needs. Further noted that these failings were reflected in some of the ASTI case study reports. Also noted that the Kenyan case study, was showing that a strong market pull and entrepreneurship supported by external international research was having a positive impact on the Kenyan floriculture industry.

The meeting recommended that CTA and the Advisory Committee should:

- Ensure the proper conclusion of the existing ASTI Case studies, facilitate the internalization of best practices and publish the results on the CTA Knowledge for Development website.
- Seek to highlight the differences across countries, determine how improving the ASTI system will impact on the priorities and quality of research and show how

improving the feedback mechanisms and information flows can actually improve the processes.

- Conduct sensitization and training workshops to disseminate the results of the ASTI case studies and build additional ACP capacity at the sub-regional levels to conduct further studies.
- Seek to widen the scope of future ASTI studies to include an analysis of other factors and a determination of the cause and effect relations which impact on the success of an innovation system.
- Ensure that Innovation systems concept is integrated into undergraduate degree programmes.
- Identify opportunities for conducting additional ASTI case studies in other ACP countries.
- Develop a programme of advocacy with donors on funding public research institutions so that they can become key players in innovations systems for improving livelihood and incomes of the poor and support regional training on analysing the agricultural science, technology and innovation systems

Summary of Day 4 - Strengthening the Advisory Committee

The meeting noted the presentations on the CTA's S&T Strategies programme as delivered by Ms. Judith Ann Francis, CTA and the Status of the NEPAD/FARA initiatives as presented by Mr. Ralph von Kaufmann, FARA.

Re CTA S&T Strategies programme the meeting:

- Commended the advances made in the CTA S&T Strategies Programme & recommended that consideration be given to calling the programme Science, Technology and Innovation (ST&I) Strategies and emphasized the need for ST&I initiatives to be always linked to improving livelihoods & development of agriculture as a business.
- Noted that CTA had contributed to enhancing the S&T policy dialogue and the need to build on the work to advance the process.
- Noted that although the knowledge website was a valuable tool for ACP countries that there was need to further promote the website and introduce other facilities that could improve access and usage by ACP member countries. Recommended that links be established with regional information networks.
- Supported the initiative of producing a printed bulletin on the Knowledge for Development website and recommended that it continue.

- Noted the additional members who were co-opted to the committee in 2004 based on recommendations of the 2nd meeting and welcomed them.
- Reviewed the Terms of Reference for the Advisory Committee that were approved in 2003 and decided that they should not be changed.
- Welcomed the use of e-dialogues among the Advisory Committee members and recommended that they be better structured given the schedule of members and their interest in participating fully in the discussions.
- Recommended that CTA continues to take the necessary action to ensure that the Advisory Committee is duly recognized by the EU and ACP groups notwithstanding the progress made in keeping them apprised of the on-going programme.

Re the NEPAD/FARA initiatives the meeting:

- Noted the status of the FARA/NEPAD programmes and recommended that efforts be continued to ensure ownership at the grassroots level and greater recognition of the involvement of national & sub-regional organisations in the programmes.
- Noted that CTA is providing support to the participation of Deans from selected African universities to participate in the meeting of the BASIC Implementing Committee.
- Recommended that the ASTI Case studies be presented by CTA at the FARA General Assembly meeting in 2005 in the event that CTA is invited by FARA.

Re the 2005 Work Programme of the Advisory Committee, the meeting agreed that the priorities for 2005 are:

- ASTI sensitization and training workshops at the sub-regional level given the work undertaken to date and the results generated thus far.
- Identification of S&T Strategies for improving farming systems based on a stratified approach using the following conceptual framework - farming for improving livelihood, farming as a job and farming as a commercial enterprise.
- S&T Implication for Management of Genetic resources with a focus on biodiversity – PGRFA and animal genetic resources, science and governance. The meeting noted that CTA would be sponsoring 10 ACP experts to the International Conference on Biodiversity, Science and Governance in Paris, January, 2005.
- S&T Policy implications for remote sensing for ACP agricultural development.

It was agreed that there was need to identify milestones by which the 2005 outputs can be measured. It was further noted that members would where possible receive background working documents so that more time can be spent on deliberating on key issues at the 2005 meeting.

Conclusion

The members reviewed the workshop conclusions as presented by Ms. Francis, agreed that the workshop objectives had been achieved and thanked CTA for hosting the meeting. Mr. Carl B. Greenidge summarized the main points, thanked members for their sterling contribution and closed the meeting.