



EUROPEAN COMMISSION
RESEARCH DIRECTORATE-GENERAL

Directorate I - Environment

Workshop Africa-EU research for the environment Brussels-7 November 2008-

Introduction

This background document has two parts. The first part is about the overall political context and recent developments which provides the overall strategic orientations as regards Africa and EU in the area of science and technology. It is presented in order to help participants to understand the political context and institutional setup. It is not intended for discussion in the workshop.

The second part is about the 7th Framework Programme (FP7) and in particular the Theme Environment (including climate change). It presents all specific topics relevant to Africa which have been introduced in the Work programme and the Calls for proposals from 2007 (beginning of the FP7) until today. It also contains information on projects funded in the 6th Framework Programme (FP6) in the area of the environment with consortia including African partners.

Its main purpose is to help participants to assess the work which has been undertaken until now at EU level and avoid repetition.

First part: The overall political context and recent developments

This workshop has the objective to help identify research topics of a strategic nature and of a regional dimension which attract the mutual interest of the EU and Africa for S&T collaboration. These topics could be considered when drafting the future research work programmes of the EU in the area of the environment (including climate change), with a view to addressing common problems, enhancing scientific excellence and promoting the participation of African researchers in European projects. This meeting doesn't have the goal to present what has already been done in the environment area but is the occasion to share concrete experiences, to enhance dialogue and to build a common agenda on environment and climate change.

The workshop is taking place within the wider policy context of the Africa-EU strategic partnership.

The Africa-EU strategic partnership

In December 2007, during the EU-AU Summit in Lisbon, the European Union and the African Union agreed on an EU-Africa Strategic Partnership for the benefit of the people of Africa and Europe. 8 thematic partnerships were identified, the 8th of these being the partnership for Science, ICT, and Space.

1. Peace and security
2. Democratic governance and human rights
3. Trade, regional integration and infrastructure
4. Millennium development goals (MDGs)
5. Energy
6. Climate change
7. Migration, mobility and employment
8. Science, information society and space.

The first Action Plan 2008-2010 sets out priorities that should be implemented in the next 3 years within each of the 8 partnerships. The 8th Partnership has 3 priority areas: Information Society, Science and Space, each with its own objectives and proposed activities (See Annex 1).

In October 2008 a joint College to College meeting of the EU Commission and the AU Commission highlighted the increased partnership between the two institutions since the launch of the Action Plan. Discussions focused on the priority actions to be undertaken.

As regards science, information society and space (8th partnership), the AU proposed 19 Lighthouse projects for implementation. These projects have been identified and designed by the African Union Commission (AUC) to respond to African needs and on the basis of the African Union's **Consolidated Plan of Action** for S&T. They will help to build the continent's capacities to harness, apply and develop science and technology in order to eradicate poverty, fight diseases, stem environmental degradation, and improve economic competitiveness.

Six (6) of the 19 projects were identified at the College to College meeting for rapid implementation:

- Under the science priority, two projects aiming to help the African Union to develop its own scientific resources (see Annex 2): The "African Research Grants" project will help the AUC to set up an African framework programme for research; in the "Water and Food Security in Africa" project, will cope with food security problems while promoting sustainable management land and water resources. One or more African river basins will consolidate the relevant knowledge and assure its concrete impact.
- In the ICT area, two projects related to enhancing internet deployment and use in Africa (the "African Internet Exchange System"), and to extending the reach of the European research and education high-speed network GEANT to Sub-Saharan Africa ("Africa Connect");
- In the Space field, the GMES-Africa project aims to reinforce Africa's use of, and contribution to, remote sensing science, especially through building of operational systems. A second project will enhance capacity building in the AUC on Geospatial

science. Technology transfer to the AUC will focus on establishing a mirror of the Africa Observatory for Sustainable Development based in Europe's Joint Research Centre (JRC) which provides scientific information on natural resources, food security, crisis management and renewable energies.

A joint statement from the Commissioners calls upon the 27 EU Member States, as well as the 53 AU Member States, the industry and civil society to coordinate their involvement in the 19 projects, and notably define appropriate funding instruments that could come from EU, national, regional or private sources, in order to ensure their successful implementation (see Annex 2).

The European Commission and the AU Commission agreed to further use the European 7th Framework Programme for Research (FP7) to promote African participation notably in the areas of health, environment and climate, energy, agriculture and food, information and communication technologies and space applications. The use of FP7 will come in complement of other EC Development programmes.

It is worthwhile to underline the coordination effort produced by the African Union Commission through its Department on Human Resource Science and Technology (AUC-HRST) in the field of research and in particular the "African Cluster on Science and Technology (ACST)", an *ad hoc* working group which reports to the African Ministerial Conference on Science and Technology (AMCOST) on the situation, activities and proposals to related to research, science and innovation in Africa.

Other international commitments

Besides the commitments at bilateral or bi-regional level the EU has undertaken commitments in the context of multilateral organisations and structures dealing with the environment and sustainable development. They are primarily the international Conventions on climate change, on biodiversity and on desertification. All these instruments identify knowledge gaps which have to be filled with new research and capacity. Many EU research project contribute to the multilateral scientific agenda as commonly agreed by the international community in the context of the meetings of the Parties to the Conventions and Protocols or their scientific arms such as the Intergovernmental Panel on Climate Change (IPCC). The EU Water initiative was such a response to an agreement defined in the Johannesburg Summit in 2002. Besides policy and capacity actions, this initiative comprised a significant research component as well.

In September 2008, the Commission issued a policy Communication entitled "A strategic European Framework for International S&T Cooperation" which presents a strategic European framework for international cooperation in science and technology.

For developing countries, the Communication states that: research cooperation should be aligned with development cooperation policies and the Millennium Development Goals. Furthermore, in the case of Africa, it states that the focus for a concerted EU and Member States effort will be on the implementation of the Joint Africa-EU Strategic Partnership and in particular the partnership on Science, Information Society and Space.

Under the 7th Framework Programme, the Commission funds an INCO-NET project: CAAST-NET (www.caast-net.org) with the goal of facilitating an increase in the quality and quantity of EU-Africa cooperation in S&T, including through the Framework Programme.

Second part: 7th Framework Programme (2007-2013)
Theme Environment (including climate change)
Work programmes 2007-2009

The main objective of the Theme Environment (including climate change) of the FP7 Specific Programme "Cooperation" is to promote sustainable management of the environment and its resources through advancing our knowledge on the interactions between climate, biosphere, ecosystems and human activities, and developing new technologies, tools and services, in order to address in an integrated way global environmental issues. Emphasis will be put on prediction of climate, ecological, earth and ocean systems changes, on tools and on technologies for monitoring, prevention, mitigation of and adaptation to environmental pressures and risks including on health, as well as for the sustainability of the natural and man-made environment.

To achieve this objective the Theme is open to proposal submission once a year after a Call for Proposals based on annual Environment Work programmes and the general rules of the Framework Programme

In FP7, the good international cooperation practices and experiences gained under FP6 are continued. The openness to third countries remains one of the basic characteristics of the Environment Theme under FP7.

As specified in the FP7 Specific Programme "Co-operation":

"International co-operation actions, showing European added-value and being of mutual interest, will support an international S&T policy that has two interdependent objectives:

- to support and promote European competitiveness through strategic research partnerships with third countries including highly industrialised and emerging economies in science and technology by engaging the best third country scientists to work in and with Europe*
- to address specific problems that third countries face or that have a global character, on the basis of mutual interest and mutual benefit."*

This should be seen in conjunction with the reference to international co-operation in the Environment Theme which embraces "global issues and the regional and local development problems".

It is important to note that the FP7 includes two mechanisms for participation of third countries in EU projects: firstly, opening all the topics of Call for international cooperation and encouraging the International Cooperation partner Countries (ICPC)¹ participation in various topics across the Theme, and secondly, through Specific International Co-operation Actions (SICA), the contents of which were identified in particular through international dialogue.

¹ See annex 4 for full list of ICPC

Any legal entity established in an International Cooperation Partner Countries (ICPC) is eligible for funding. Specific eligibility rules as regards the composition of the partnership apply in the SICA.

Decisions on international cooperation topics are not taken in isolation. They are a result of bilateral, bi-regional or multilateral dialogue. This dialogue takes place mainly in the context of official cooperation instruments such as S&T Agreements, Implementing Arrangements and through participation in multilateral bodies (GEOSS, UN Framework Convention on Climate Change...). In addition, it takes place in ad-hoc events such as bilateral or bioregional workshops and working groups. Finally, input is provided by the Advisory Group of external experts, Programme Committee with Member States representatives, National Contact Points as well as by other EU policies, according to their research needs.

Our Work programme builds upon the scientific agenda but it also takes into account the broader European policy agenda and policy commitments (e.g. climate change and other conventions, EU Water Initiative, bilateral summits or S&T Joint Committees).

Priority regions/countries are selected on the basis of their scientific human potential, environmental problems, commitment to international co-operation and their contribution to global environmental problems.

In Africa (as well as in other developing regions) global and regional environmental problems may prevent developing countries from achieving sustainable development. Besides the chronic character of problems such as desertification, loss of forest coverage, loss of biodiversity and scarcity of water, climate change comes to further aggravate them.

Furthermore, the patterns of production and consumption in developed countries have an impact on the sustainable development prospects in particular of the most ecologically and economically vulnerable developing countries.

In this sense, research has a dual role to play. Firstly, to increase the understanding of the impacts of global environmental change on the economy and society and to propose solutions for mitigation and adaptation.

Secondly, to develop tools adapted to developing country conditions, to assess environmental impacts of development choices and propose alternative options. The challenge for developing countries (and for emerging economies) is to define a socially, economically and environmentally justifiable mix of development options under the new conditions defined by climate change.

Below you will find some extracts of the Work programmes 2007, 2008 and 2009 (the latter currently open for submissions) with a direct or indirect reference to Africa.

In Annex II you will find FP6 projects funded by the Environment Theme which contain African participants in their consortium

Work programme 2007

A. Specific International Cooperation Actions

- **Health impacts of drought and desertification including related socio-economic aspects**

The aim is to use Geographic Information Systems (GIS) approaches to identify populations, especially those in the International Collaboration Countries around the Mediterranean basin, with potential exposure to environmental hazards resulting from drought and water scarcity including desertification and dust (storms). Exposure data will be linked to relevant disease outcomes, e.g., vector and waterborne diseases. The study shall consider the valuation of socio-economic factors such as those related to land use and urbanisation. Links should be established to ongoing research and other international activities, in particular those in support of the UN Convention to combat Desertification and the Global Earth Observation (GEO) initiative.

***Expected impact:** New and improved data on human health and socioeconomic impacts of water scarcity caused by advancing desertification, communicated in easily accessible form in the public domain and discussed with governmental and non-governmental stakeholders for consideration for their own planning and adaptation/remediation strategies. Support to international initiatives such as GEO and the UN Convention to combat Desertification to solve emerging environmental issues at regional level.*

- **River basin twinning initiatives as a tool to implement EU water initiatives**

Integrated water resources management research activities carried out on twinned catchments/river basins from Europe and catchments from international cooperation partners to underpin the implementation of Integrated Water Resources Management (IWRM) in these countries in compliance with EU Water Initiative objectives and Millennium Development Goals targets.

***Expected impact:** Support to EU Water Initiative in the context of international cooperation. Such collaborations will have to pay particular attention to constructive engagement with the entire spectrum of societal actors. Accrued emphasis has to be placed on communicating the research process and its results to all societal actors to make the research policy relevant and enhance its impact. Target areas for the 2007 call: Africa and South America.*

- **Geographical transect approach to desertification**

Research should focus on development of protection and restoration methods, strategies and measures, as well as best practices, operational analytical methods and modelling studies to combat desertification and land degradation: 1) Furthering knowledge of processes (geographical transect approach taking into account the links between physical and socioeconomic processes) in particular evaluating the costs and benefits of any measures that could be proposed and 2) Knowledge transfer, addressing the stakeholders, including the institutional level.

***Expected impact:** S&T support to EU stakeholders and the relevant organisations in partner countries for developing and/or improving their strategies, planning and implementation plans against desertification and thus contribute directly to the UNCCD Convention for desertification, to the EU Soil Thematic strategy and to the science programme of the "Committee for Science and Technology (CST)" the mandate of which is to support scientifically COP (Conference Of The Parties) with information and advice on scientific and technological matters relating to combating desertification and mitigating the effects of drought*

- **Biodiversity values, sustainable use and livelihoods**

Increase knowledge of the cultural, social, spiritual, economic and other values of biodiversity. Improve understanding of public beliefs, perceptions, attitudes and preferences regarding biodiversity and the drivers of biodiversity change, and how they influence human behaviour and public policy. Improve and assess value-based strategies to promote sustainable livelihoods and lifestyles, and to reduce the vulnerability of livelihoods, while conserving and husbanding biodiversity and securing income to rural marginal areas. Improve understanding of and capacity to deal with conflict over the multifunctional uses and preservation of ecosystems and components of biological diversity, and contribute to the development of policy instruments and tools for conflict reconciliation. Understanding the link between loss of biological and cultural diversity at global and local levels.

***Expected impact:** Constructive engagement with a broad selection of social groups and their governmental and non-governmental representatives in order to enable serious consideration and uptake of information generated from this work to improve their capacity to design policies that take into account the true social (economic and non-economic) value of biodiversity.*

- **Georesource information system for Africa**

To set-up the preparatory phase for the building of an information system containing and making available African Geological resources including groundwater, energy, raw material and mineral resources (georesources) that are/have been collected through numerous initiatives by both African countries, regional, international and European Organisations

collectively, and are a unique archive of Africa related geoscientific observation data which primarily need to be shared with African partners. The preparatory phase of this initiative should comply with the objectives of GEOSS and the EU development policy for the use of the Georesource data which are primarily to be shared with the African countries. The project should include participants from the African countries with experience in management of georesources, and exploring potential future application for the other ACP countries.

Expected impact: *Safeguarding/protecting observation data for Georesources in Africa as well as helping exploiting the relevant observing systems.*

- **Improving observing systems for water resource management**

Bring together research activities supporting the production of a number of new products for improving the water resource management in countries suffering from drought and floods (e.g. ACP countries) in the domain of precipitation, soil moisture, evaporation, evapotranspiration and other water cycle variables, by in-situ observations and the planned space mission contributing to the GEO initiative. Specific attention should be given through the project to clouds and precipitation that are at the heart of Earth's water cycle and to elaborating scenarios for observations at both the local and global scale which would enable better precipitation forecasts. The project should involve participants from the developing countries with experience in extreme precipitation events.

Expected impact: *Improved integrated monitoring systems for water resource management in developing countries, considered for deployment in the countries concerned and used at least at pilot scale.*

- **GEONETCast applications for developing countries**

To test, with the collaboration of developing countries, the GEONETCast concept currently developed through GEO by which environmental satellite and in situ data and products from participating data providers within GEO would be transmitted to all users through a global network of communications satellites, using a multicast access controlled broadband capability. The project should address a limited number of pilot cases through which environmental data transmission and exchange covering some or all of the 9 societal benefit areas of GEO could be operated by using the GEONETCast protocol and involving European projects participants and International Co-operation Partner Countries (ICPC)

Expected impact: *Relevant organisations in the developing countries start using broadcast environment data received through GEONETCast pilot cases and benefit from development of the people capacity in those countries to use GEONETCast in local/national planning and decision making.*

- **Tools for impact assessment of sustainable development policies in international collaboration partner countries**

The purpose is to further develop tools for analysing key elements of sustainable development policies at the macro- and meso-economic levels, with particular attention to the effects of co-operation and trade policies as well as to the impacts of the delocalisation of EU activities. The participation of ICPC partners should be predominant in the project.

Expected impact: *Improved EU international development and research agendas through a better understanding of consequences of sustainable development policies in ICPC countries.*

Work programme 2008

A. Specific International Cooperation Actions

- **Addressing deforestation in tropical areas: Greenhouse gas emissions, socio-economic drivers and impacts, and policy options for emissions reduction**

Greenhouse gas emissions from deforestation in tropical areas need to be better quantified and the socio-economic drivers need to be analysed. The impacts from deforestation should be studied. These will contribute to the development of policy options to reduce GHG emissions from deforestation under present and future climate change scenarios considering the environmental, social and economical pressures in tropical areas. Work should provide input to emission reduction estimates for 2020 and thereafter, as well as to policy approaches, currently discussed in UNFCCC. Climate policies targeted at avoiding deforestation should be assessed and socio-economic impacts quantified. The impact of international climate policies on changes in the use of land (i.e. food versus bio fuels) should be assessed.

***Expected impact.** Such knowledge will reduce uncertainties in emission reduction estimates for 2020 and beyond, and provide support to European and international policy approaches and post-2012 discussions on land use and deforestation under the UNFCCC.*

B. Topics where international cooperation is encouraged

In addition to the SICA topic identified above, several other topics have been specifically highlighted as being research areas which are particularly well suited for international cooperation. For these topics, the inclusion of (a) relevant international partner(s) could add to the scientific and/ or technological excellence of the project and/ or lead to an increased impact of the research to be undertaken. These aspects will be considered specifically during the evaluation. Some examples:

- Multiple pathway analysis of emerging economies in a post- Kyoto regime engaging the emerging economies for climate protection
- New, improved and validated biomarkers to investigate longterm health impacts of exposure to environmental pollutants
- Prediction of triggering and risk assessment for landslides
- Clustering River Basins Twinning Initiatives and knowledge transfer
- Assessment of methods to combat desertification
- Development and application of methodologies, technologies, models and tools for damage assessment, monitoring and adaptation to climate change impacts (excluding extreme events)

Work programme 2009 (Call currently open for submissions)

A. Specific International Cooperation Actions

- **Climate change predictions in Sub-Saharan Africa (east to west), quantification of impacts and assessment of adequate adaptation measures)**

The quality of seasonal forecasts and decadal climate change predictions should be improved over the Sub-Saharan African region (east to west) through better use and development of forecasting models on seasonal to decadal climatic scales. It will increase our confidence in the simulated sensitivity of rainfall perturbations due to changes of increased greenhouse gases, land-use, etc. Furthermore, a better understanding of climate impacts and improved forecasting capabilities are needed in key sectors such as water resources and agriculture. With these tools and taking into account the socio-economic aspects of African societies, the vulnerability to inter-annual variations and longer trends in climate can be evaluated. This in turn will lead to adaptation strategies for which their feasibility and associated costs will be assessed. This topic needs to have a strong involvement of the African research community.

Expected impact: *Improved quality of the seasonal forecasts and decadal climate change predictions over the Sub-Saharan region (east to west). Improved forecasting capabilities and better understanding of climate impacts in key sectors, such as agriculture and water resources for development of early warning systems for food security, risk management and civil protection in Africa. Development of adaptation strategies and assessment of the feasibility and costs.*

- **Methods to quantify the impacts of climate and weather on health in developing low income countries.**

The aim is to develop methods for the quantification of the impacts of climate and weather on various health outcomes in low-income regions. Direct as well as indirect impacts on health should be investigated. The developed methods should allow prioritisation of the health impacts from the viewpoint of their magnitude and graveness and should be tested on case studies in at least three different countries. Effective transfer and use of the research results will be ensured by involvement of users and stakeholders in the project.

Expected impact: *More accurate and reliable quantifications of the impact of climate change on health outcomes in low-income developing countries. Enhanced capacity of relevant stakeholders to focus on and cope with priority health impacts of climate change. Support to EU policies (including the external dimension) on climate change and health.*

- **Desertification process and land degradation (not specified, but problem for North Africa/ Mediterranean)**

Research should focus on response to desertification, land degradation processes, ecosystem services decline and the associated loss of biodiversity via the development of protection and restoration methods, strategies and measures, as well as best practices, operational analytical methods and modelling studies to combat desertification, associated loss of biodiversity and land degradation. Considerations should be given to support decision-making in integrated land and water management. An ecosystem approach has to be adopted. The project could include innovative research on desertification processes and land degradation, taking into account the links between physical and socioeconomic processes, evaluate the costs and benefits of any measures that could be proposed and facilitate knowledge transfer, addressing the stakeholders, including the institutional level. International cooperation should be envisaged to also address regions in the world facing similar situations as in Europe.

Expected impact: *The results of the project(s) will allow the EU stakeholders and the relevant organisations in partner countries to develop and/or improve their strategies, planning and implementation plans against desertification and land degradation, and thus contribute directly to the UNCCD Convention for desertification, to the EU Soil Thematic strategy and to the science programme of the 'Committee for Science and Technology (CST)' with information and advice on scientific and technological matters relating to combating desertification and mitigating the effects of drought.*

- **Supporting sustainable nationwide and local wastes processing industry in ACP countries: legal framework, economical incentives, business/ organisational know-how**

This networking action, addressing a group of ACP countries of homogeneous and coherent socio-economic contexts, should support the formulation and implementation of policies and technological solutions tailored to the local conditions. In particular the project should analyze the current situation in the targeted countries, the lessons learnt from EU technological/ organisational best practices, and the needs for appropriate/ adapted solutions, identify a list of policy and technology options for the waste management sector in the considered countries and evaluate the socio-economical implications of proposed changes.

Expected impact: *Contribution to strengthening ACP stakeholders' capacity to work out national and regional policy frameworks and action plans for a sustainable development of their waste sector.*

- **Action in the domain of Earth Observations to support capacity building in GEO**

Proposals are requested with the objective of establishing a Capacity Building advisory capability in support of Earth Observation (EO) activities, seeking to build upon and complement existing actions in this domain. The primary objectives of any proposal should be:

- a) To work with stakeholders in new EU countries and developing countries to identify the actual EO capacity building needs of these groups and then to set out clear and detailed specifications for viable EO capacity building initiatives;
- b) to identify possible resource providers and to act as a broker to bring those stakeholders with viable initiatives into contact with these providers, making use of the proposers expert knowledge of the various types of potential sources of resources, and the procedures used by these providers to allocate funds;
- c) To act as a broker between the stakeholders and the resource providers, assisting the stakeholders to work with the providers to bring the identified EO capacity building initiatives to fruition;
- d) To facilitate education and training in support of EO capacity building, thereby providing a global base of technical expertise for GEOSS (Global Earth Observation System of Systems), including the domain of climate monitoring in developing countries;
- e) To produce monitoring and evaluation mechanisms aimed at determining the efficacy of GEO capacity building efforts.

Expected impact: *this support action should make a major contribution to the implementation of the Group on Earth Observation (GEO) Seville roadmap to mobilise capacity building resources for realising the GEOSS. It should also demonstrate the capability of the GEO to co-ordinate resource mobilisation mechanisms and to act as a broker serving EO stakeholders and potential resource providers. It should also improve the integration of the GEOSS into regional and national planning processes for sustainable development. This support action should strengthen the capability of all countries, and in particular developing countries, to play an effective role in the capacity building activities of the GEO.*

B. Topics where international cooperation is encouraged

In addition to the SICA topic identified above, several other topics have been specifically highlighted as being research areas which are particularly well suited for international cooperation. For these topics, the inclusion of (a) relevant international partner(s) could add to the scientific and/ or technological excellence of the project and/ or lead to an increased impact of the research to be undertaken. These aspects will be considered specifically during the evaluation. Some examples:

- Climate dynamics and abrupt changes – analysis of the palaeo-record
- Vulnerability assessment of buildings, lifelines systems and networks related to earthquakes
- Contribution to observing systems for seismogenic hazards
- Contributing to observing systems for environment and health monitoring and modelling

THE 8TH PARTNERSHIP

PRIORITY ACTION 1: SUPPORT THE DEVELOPMENT OF AN INCLUSIVE INFORMATION SOCIETY IN AFRICA

Objective

- Bridging the digital divide and to enhance the use of information and communication technologies (ICTs) as key enablers for poverty reduction, growth, and socio-economic development.

Expected outcomes

- A more sustainable, accessible, affordable and effective African ICT infrastructure;
- Enhanced use of ICT applications in order to achieve MDG objectives, notably in the health and education sector;
- Progress toward inclusive and equitable knowledge-based societies;
- Common African-EU positions and approaches in international and regional ICT fora.

Activities

- Complement investments made on physical infrastructures, as planned in the EU-Africa Partnership on Infrastructure, through support to key capacity-building initiatives identified in the African Regional Action Plan for Knowledge Economy (ARAPKE);
- Create the right conditions for setting-up efficient public-private partnerships to ensure affordable service costs and the widest diffusion on ICTs and related services;
- Ensure coherence between activities carried out at continental and regional levels;
- Increase the use of ICTs and ICT-applications of high societal impact in Africa, in particular the e-health and e-learning domains;
- Enhance ICT human resource development, promoting e-skills and digital literacy;
- Reinforce the deployment of regional research and education networks and their interconnection with the GEANT-2 network;
- Harmonize efforts and initiatives with regard to ICTs that include infrastructure, internet exchange points, interconnectivity and interoperability;
- Promote ICT policies and strengthen regulatory frameworks in Africa;
- Promote telemedicine and early warning systems for epidemics, linked to rapid response plans;
- Hold a systematic and regular dialogue on all issues related to ICTs on technical, senior official and political level in the most effective formats.

Actors

- AU Commission/NEPAD, African States, RECs;
- European Commission, EU Member States;
- Private Sector;
- Civil Society and NGOs;
- Local authorities;
- International Financing Institutions;
- UN and specialized agencies.

Finance

- Appropriate financing sources in accordance with their respective scope and their relevance to objectives and activities concerned, their specificity and eligibility criteria, such as the 10th EDF, ENPI, DCI;
- Bilateral contributions from EU Member States and African States.

PRIORITY ACTION 2: SUPPORT S&T CAPACITY BUILDING IN AFRICA AND IMPLEMENT AFRICA'S SCIENCE AND TECHNOLOGY CONSOLIDATED PLAN OF ACTION (CPA)

Objective

- Bridging the scientific divide, to strengthen African capacities in the area of science and technology, and to enhance the use of science and technology as key enablers for poverty reduction, growth, and socio-economic development.

Expected outcomes

- A strengthened African S&T base;
- Increased number of scientists, technicians and engineers;
- Mainstreaming of S&T into RECs' sectoral programmes and projects;
- Improved infrastructure and facilities for R&D;
- Strengthened AU- EU cooperation on science and technology programmes.

Activities

- Start implementation of the Addis Ababa Declaration on Science and Technology for Development in Africa;
- Enhance cooperation with RECs on mainstreaming science and technology for socio-economic development and competitiveness, and strengthen their capacities in this area;
- Promote the application of S&T to achieve specific MDGs;
- Promote integrated health research strategies and improve national capacities in areas such as health management information systems, epidemiological surveys, clinical and operational research, and enhance links with the European and Developing Countries Clinical Trials Partnership (EDCTP);
- Define innovative ways and means of financing science and technology in Africa;
- Develop harmonized science and technology policies in Africa;
- Reinforce the S&T dimension in education and training;
- Promote the exchange of good practices of cooperation in S&T at the regional and international level;
- Advance institutional and policy arrangements that enable African countries to mobilize and share their scarce resources to conduct science and generate technological innovations;
- Promote the participation of the African research community into European programmes of Research and Technological Development;
- Promote twinning arrangements between relevant African and European actors.

Actors

- AU Commission/NEPAD, African States, RECs;
- European Commission, EU Member States;
- Private Sector, universities, science and technology institutions and research centres;
- International Financing Institutions;
- UNESCO and other UN agencies;
- European and Developing Countries Clinical Trials Partnership (EDCTP).

Finance

- Appropriate financing sources in accordance with their respective scope and their relevance to objectives and activities concerned, their specificity and eligibility criteria, such as the 10th EDF, ENPI, DCI;
- Bilateral contributions from EU Member States and African States;
- African Science and Technology fund;
- EDCTP, Thematic Budget Investing in People.

PRIORITY ACTION 3: ENHANCE COOPERATION ON SPACE APPLICATIONS AND TECHNOLOGY

Objective

- Enhanced cooperation in the use of sustainable and affordable space application and technology to support Africa's sustainable development objectives.

Expected outcomes

- Space-related issues fully integrated in specific dialogues and cooperation initiatives in areas such as environment and resource management, climate change, peace and security;
- Specific projects based on space technologies to achieve regional and global development goals.

Activities

- Jointly analyse the potential to use space applications to better manage natural resources, improve living conditions of populations and promote sustainable development, in particular in the areas of:
 - Telecommunications and bridging the digital divide;
 - Monitoring of climate change, desertification or fires, and water and food resources through Earth Observation, such as Global Monitoring for Environment and Security (GMES) for Africa;
 - Navigation applications such as GALILEO, European Geostationary Navigation Overlay Service (EGNOS);
 - Facilitating humanitarian aid operations and improving security of populations through integrated space applications,
 - Space technologies and scientific applications as contributions to the knowledge-based society.
- Ensure effective follow-up of the event "Space for Development – the Case of GMES and Africa" (Lisbon, December 2007);
- Develop concrete joint cooperation initiatives in selected areas.

Actors

- AU Commission/NEPAD, African States;
- European Commission, EU Member States;
- European agencies such as the European Space Agency (ESA) and Eumetsat;
- Private Sector.

Finance

- Appropriate financing sources in accordance with their respective scope and their relevance to objectives and activities concerned, their specificity and eligibility criteria, such as the 10th EDF, ENPI, DCI;
- Bilateral contributions from EU Member States and African States.



**EUROPEAN COMMISSION - AFRICAN UNION
COMMISSION**



JOINT STATEMENT
on
IMPLEMENTATION OF THE EU-AU PARTNERSHIP FOR SCIENCE,
INFORMATION SOCIETY AND SPACE.

The European Commission (EC) and the African Union Commission (AUC) have made substantial progress towards the definition of a broad range of projects with a strong capacity building component. These respond to the priorities identified in the Africa-EU Partnership on Science, Information Society and Space. These projects will help bridge both scientific and digital divides, strengthening Africa's base in the areas of Science and technology and enhancing the use of ICTs and space applications as enablers for growth and socio-economic development.

AU Commissioner Jean Pierre Onvehoun Ezin and EU Commissioners Janez Potočnik, Viviane Reding, Günter Verheugen and Louis Michel ("the Commissioners") agree to consider this book of 19 "lighthouse projects" as the framework for the implementation of the EU-AU Partnership on Science, Information Society and Space and its Action Plan. These projects will be further refined and prioritized through the involvement of the Member States and all relevant players on both sides, with a view to identify the most appropriate and viable implementation modalities and possible sources of funding.

Among the 19 "lighthouse" projects, the following ones are ready for early implementation:

2 projects under the science priority:

- **African Research Grants & Scientific Awards**

The general objective of this project is to set up a research programme to promote sustainable science and technology research for Africa's technical, economic and social development; and to help the AUC Department of Human Resources, Science Technology acquire the capability to co-ordinate the implementation of that programme.

- **Water and Food Security in Africa**

This project aims to strengthen Africa's capacity in science and technology in order to cope with food security problems while promoting sustainable management of land and water resources. In this context, research and demonstration activities in one or more African river basins will consolidate the relevant knowledge and assure its concrete impact.

2 projects under the information society priority

- **Africa Connect**

The AfricaConnect project will support the development of regional research and education networks in Sub-Saharan Africa and their interconnection with the European GEANT2 network, building on a similar initiative, EumedConnect, implemented in North-Africa (currently interconnecting around 1,5 Million users across more than 500 research organisations). The objective will be to contribute integrating the African research community both at regional and international levels, through interconnection with the most cost-effective high bandwidth capacity.

- **The African Internet Exchange System (AXIS)**

This project aims to support the establishment of a continental African internet infrastructure through national and regional internet exchange points. Such deployment is considered crucial for the development of the internet in Africa, generating huge costs savings by keeping local traffic local and offering better quality of service and new applications opportunities. AXIS activities will include technical assistance on planning, regulatory/policy issues, as well as human training to achieve this objective.

2 projects under the space priority:

- **The African Global Monitoring for Environment and Security (Kopernicus -Africa)**

Kopernicus - Africa will reinforce Africa's use of and contribution to remote sensing science, especially building operational services for sustainable development. The "Kopernicus Africa Action Plan" detailing infrastructure needs, thematic priorities and financial instruments will be submitted to the third EU-Africa Summit, foreseen early 2010 in Libya.

- **Capacity Building in the AUC on Geospatial Sciences**

The EC Joint Research Centre's Africa Observatory exploits geospatial science for sustainable development focusing on natural resources, food security, crisis management and renewable energies. Capacity building will identify modalities for implementing a mirror of the Observatory at AUC so as to increase the use of scientific information for decision-making.

The Commissioners agree on the following basic and general principles for the implementation of the 8th Partnership Action Plan:

- the need to apply scientific knowledge and engineering know-how to economic growth, social progress and sound policy decisions;
- the need to combine a thematic approach, based on encouraging centres of excellence, such as Pan-African universities, with broader capacity-building;
- the need to use centres or poles of excellence to create high aspirations amongst African researchers and engineers, and to inspire and support students;
- the need to develop an inclusive Information Society extending reach and cutting-down access costs of ICTs and related services through support in the fields of e-policies and regulation
- the need to generate some short term results, but within a coherent and co-ordinated long term vision and strategy;
- the need to invest in the development of appropriate and sustainable new technologies;
- the need to involve the Diaspora;
- the need to involve the respective Member States, and the Regional Economic Communities of Africa, and to federate all key stakeholders, including the private sector and civil society in order to avoid fragmentation of initiatives;
- The need to support the other thematic partnerships of the Africa-EU Strategic Partnership through the effective application of scientific and engineering knowledge;
- the need to popularise science through awards and training of journalist in science.

The Commissioners share the strong conviction that research, innovation and the development of the information society are vital instruments for attaining equitable and sustained economic growth, alleviating poverty, eradicating disease and bridging the digital divide. They are essential to achieving the Millennium Development Goals. The respective experiences of the Commissioners confirm the invaluable role played by science and the information society as enablers for deepened regional cooperation and integration, as well as for fostering improved understanding between nations on issues of global concern. They therefore strongly emphasize the central role of the Partnership on Science, Information Society and Space in the implementation of the wider Africa – EU Strategic Partnership.

The Commissioners also agree to further reinforce EC/AUC cooperation in Science and Technology. The European Framework Programme for Research and Development (FP7) is a primary tool to pursue that objective. Under FP7 (2007-2013) various collaborative schemes – some of them specifically focused on Euro-African cooperation - will be used identify priorities, to promote the access of African scientists to projects and networks, to bring together the best researchers from both sides, and ultimately to produce results that are both of high scientific value and great economic and social impact. As an outcome of these efforts, research cooperation between Africa and Europe is expected to become more substantial, more focused and more relevant.

As the availability of appropriate funding instruments will be imperative to achieve the goals of the Partnership, the Commissioners encourage new, specific and sustained

investments from national and regional, public and private, funding sources by all partners concerned with the objectives of the Partnership. In this regard, they consider the prioritisation of science and the information society, as priority objectives for Africa – EU development cooperation instruments, as especially important.

Whilst capacity-building remains paramount, the excellence, expertise and experience of Africa's knowledge and innovation communities provides a valuable contribution to international science and technology endeavours and in addressing shared global challenges. The Commissioners therefore call for increased efforts as part of the Partnership to promote and facilitate improved research cooperation between African and European partners.

An enabling policy environment will be essential for the effective implementation of the Partnership, therefore the Commissioners call for an enhanced Africa – EU science and information society policy dialogue, to permit mutual policy learning as well as, where appropriate, policy coordination and alignment.

Brussels, 1st October 2008

Dr. Janez Potočnik
European Commissioner
Science and Research

H.E. Dr. Jean Pierre Onvehoun Ezin
African Union Commissioner
Human Resources, Science and Technology

Louis Michel
European Commissioner
Development and Humanitarian Aid

PARTNERS FROM AFRICA IN FP6 (ENVIRONMENT)

In FP6 (environment), there were 45 partners from Africa in 18 projects. The overall EU grant to those partners is about €2,4 million.

Among others, the AMMA project (Africa Monsoon Multidisciplinary Analysis) has 21 partners from Africa.

The LUPIS project (Land Use Policies and Sustainable Development in Developing Countries) has 4 partners from Africa.

The TWINBASIN (Promoting Twinning al River Basins for Developing Integrated Water Resources Management Practices) has 3 partners from Africa.

Below, you will find a comprehensive table with the above elements.



FP6 and FP7
African countries ...

LIST OF ICPC



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