



United Nations
Economic Commission for Africa
Office for North Africa

Kingdom of Morocco
HHassan II Academy of Science and Technology

Experts Group Meeting on
« Promoting Research and Development (R&D)
in North Africa”

Rabat, Morocco, 15-17 July 2008

PRESENTATION NOTE

I. Introduction

In the framework of its activities and strategic priorities aiming at promoting the use of science and technology for development, the Economic Commission for Africa (ECA) cooperates with African research centres, universities and other centres of excellence. Technical support is also provided to these institutions in various sectors. It also seeks to strengthen their research and innovative capacities with a view to consolidating the African information society. It is in this context that ECA organized the Conference entitled “Science with Africa” from 3 to 7 March 2008¹, with a view to reinforcing partnerships between institutions and African policy makers in R&D activities.

In the same vein, the ECA Office for North Africa in collaboration with the Hassan II Academy of Science and Technologies and other partners will organize an experts’ group meeting on “Promoting Research and development (R&D) in North Africa”. This initiative which forms an integral part of the Work Programme for this year is also to be situated in a continuous reflection initiated since 2001, by a workshop that defined sub-regional strategies aiming at creating an enabling environment for an effective dissemination of R&D products and services in North Africa².

¹ This Conference is a follow-up to the AU Summit of Heads of State and Government which was held in January 2007, which declared the year 2007 as the launching year of « Science, Technology and innovation in Africa ».

² Ad Hoc Experts Group Meeting on « Commercialisation des résultats de la recherche en Afrique du Nord », 12-13 March 2001, Tangiers, Morocco.

II. The North African context

With a view to meeting the economic prerequisites for international opening and competitiveness coupled with increased global competition, most countries in the North African region initiated investment policies in R&D that are wide in scope but remain often modest in terms of resource allocation. In Tunisia, research infrastructures, held by 15800 researchers, account for 33 centres, 139 laboratories and 643 research units³. R&D expenditures are expected to increase from 1.13% of GDP to 1.25% in 2009. Scientific research in Morocco is a major challenge for economic and social development and is at the centre of government action that foresees a re-evaluation of budget allocations to increase R&D contribution from 0.8 of GDP in 2007 to 1% in 2009.

These investments are of course in the same proportions as those of emerging countries such as Malaysia (0.7%) or India (0.8%), but they are low in comparison to those of South Korea (2.6%), China (1.4%) or OECD countries (3% of GDP)⁴.

Moreover, even if the value of North African researchers is recognized, their contribution to worldwide R&D efforts is often made by expatriate researchers. This is reflected by the weak intensity of research at the national level, the limited number of scientific publications, patents, and existing technological centres as well as the weakness of accompanying structures.

A more encouraging trend is brought by the huge potential of national centres of excellence in areas such as agronomic research, medical or energy technology, water management, electronic components, software and ICT infrastructure.

Hence, the need to devote more efforts to the development of research capacities in North African countries to consolidate these

gains and better reorient them towards attainment of development objectives. That implies a new type of relationships between laboratories and industries in which innovation will play a determining role. Through technical assistance, these countries could benefit from additional support in the form of knowledge transfers in sectors that are essential for economic development such as food technologies, biotechnology, renewable energies, health and education. The various partnership agreements in particular with the European Union offer an adequate framework in that regard.

At the regional level and considering different R&D capacities in countries, it would be important to define and encourage actions towards regional cooperation in different domains of development interest to the region through the implementation of a regional R&D program. Indeed, countries that already possess a relatively developed scientific and technological infrastructure could, with an additional investment, set up high level technological and scientific institutions that would benefit the whole region.

III. The Experts Group Meeting on « Promoting R&D in North Africa »

It is in this context that the experts group meeting on "Promoting R&D in North Africa" is being organized by the ECA Office for North Africa jointly with the Hassan II Academy of Science and Technology and other partners.

(i) Participants

This meeting will bring together high level scientific experts in the following areas: finance, planning, higher education, intellectual property and patents, agriculture, health, energy and new technologies. Research institutes, universities, decision makers, development partners and representatives of the private sector will take part in the meeting.

³ Opening Speech delivered by His Excellency Mohamed Ghannouchi, Moroccan Prime Minister at the 9th Session of the High Committee on Scientific Research and Technology.

⁴ ANIMA (2005), « Innovation, pôles technologiques et attraction de l'investissement ». Notes and Documents N.9. November 2005.

(ii) Objectives

The main objective of the meeting is to determine concrete and adapted ways and means to reinforce the role of R&D in promoting economic competitiveness, job creation and socio-economic development of North African countries.

More specifically, the meeting aims at:

- Assessing the current dynamics of R&D and technological innovation in North Africa, through a number of sectors, while putting emphasis on supportive instruments and mechanisms and best practice examples
- Proposing a framework for regional and international cooperation that will support the implement of future R&D actions and strategies.

(iii) Themes of the Meeting

Plenary Sessions

Plenary session 1. R&D in North Africa

Decreasing production costs through productivity gains and a better know-how and "knowledge" has become one of the determining factors for supply capacities. Innovation policies must aim at exploring new ideas for the development of new products or services that will be marketable. Therefore, it is very important to support R&D in strategic sectors that have a technological innovative content. However, the best way to accomplish this policy is not clearly defined in many countries.

This session will take stock of R&D dynamics and strategies in North Africa while putting emphasis on best practices in innovation and adaptation of the productive sector. The main focus will be on how to implement adequate policies and actions that would favour innovation in the productive sector.

Plenary session 2. Other Experiences

This session will discuss R&D policies and strategies in some countries outside the North African region, particularly emerging countries. It will provide an opportunity to draw some lessons from these countries experiences in implementing R&D programs that enabled them to reinforce their scientific capacities and industrial competitiveness.

Plenary session 3. Prerequisite and accompanying measures

This plenary session will discuss ways and means for developing research activities, optimizing current efforts in the area and directing them towards the special needs of the countries and of the region (long-term vision; research planning; monitoring and evaluation of its implementation by finance laws, etc). The session will also highlight a number of accompanying measures, in particular the role of research centres and excellence, the importance of intellectual property as it relates to standardization and mutual recognition, and the improvement of access to patents and their use.

Plenary session 4. Financing of Research

The availability of adequate financing is one of the major constraints for R&D promotion. Therefore, this session will try to justify for the importance that needs to be provided to R&D in public spending, and government support to enterprise in financing its R&D activities. Moreover, the session will explore financial opportunities provided by the international financial institutions in support of R&D activities in North African countries.

Regional cooperation and R&D in North Africa

This Round Table will discuss project ideas towards development of R&D activities that could be jointly developed by North African researchers. It will equally identify new forms of cooperation between North African research centres as well as their development partners (Euro Mediterranean area, African networks, Arab networks, etc).

Plenary session 6. Wrap-up Session

This session will summarize and put together conclusions and recommendations emanating from different sessions, and will suggest priority research activities to be undertaken jointly with all development partners.

Parallel sessions

These sessions will highlight challenges facing North African countries for their socio-economic development. The focus will be placed on three priority areas, namely agriculture, energy and new technologies. A session will be devoted to the business sector and its needs. Sessions 1 and 2 will be held in the morning, sessions 3 and 4 will take place in the afternoon.

Parallel session 1. Agriculture

This session will raise three main questions:

- (i) What research is required for the agricultural sector to meet today's challenges (productivity, food security, use of water resources, climate change, biodiversity, etc...)?
- (ii) What type of R&D for a better management of maritime resources?
- (iii) How to manage efficiently forestry resources in an economic development perspective?

Parallel session 2. Energy

This session will analyze potentials and opportunities in the energy sector to attain sustainable development. It will identify alternative energy options for North African countries, in view of growing energy demand and environmental requirements.

The session will emphasize the importance of R&D in building strong inter-relationships between climate change and energy supply/demand, its impacts on the socio-economic conditions in the region and point out the crucial role of alternative energy sources, and renewable energies in particular.

Parallel session 3. New technologies

This session will present recent technological advances and opportunities in the areas of nanotechnology, ICTs and biotechnology including genetically modified organisms (GMO) as some elements of response to the new challenges relating to technological innovation.

Parallel session 4. Business and technology

This session will look into the required managerial solutions, modernization and research activities for enterprise competitiveness (in particular SMEs) in North Africa and will propose solutions aiming at reinforcing business innovative capabilities to use the products of research activities/results at national and international levels. A particular emphasis will be put on industrial enterprises, as they are mostly exposed to international competition.

The session will pave the road for responses to a number of questions related to issues such as:

- Enterprise technological capacity: How to acquire and retain technologies that are essential to development?
- Enterprise entrepreneurial capacity: to generate and implement coherent R&D strategies
- Enterprise learning capacity: to adapt its organizational methods and culture to the imperative of technological changes/innovations.

(iv) Expected Outcomes

The expected outcomes of the meeting are, among others:

- Have a better understanding of the dynamics of R&D in North Africa and a highlight of best practices
- Define a framework for regional cooperation in R&D in the various areas of interest to the region
- Lay the foundation for a partnership between countries of the region and their development partners.

(v) Dates and Venue

The meeting will take place on 15-17 July 2008, in Rabat, Morocco.

(vi) Contact

Requests of information relating to this event can be addressed to:

Ms Karima Bounemra Ben Soltane
Director
kbounemra@uneca.org

Ms Aissatou Guye, Economiste
Coordinator
agueye@uneca.org

Mr Karim Laraki
Regional advisor
klaraki@uneca.org

**Economic Commission for Africa
Office for North Africa**

22, rue Jabal Al Ayachi - Agdal - B.P.827

Rabat Méchouar - Rabat, Morocco

Tel. : +212 37 67 45 95/ 37 67 50 12/ Fax: +212 37 67 52 82

Hsrdc-na@uneca.org / www.uneca-na.org