

## **Developing priority actions for agricultural biotechnology in West Asia and North Africa (WANA) to face the challenges of food insecurity and climate change: Summary report of the ABDC-10 parallel session<sup>1</sup>**

**Organiser:** Ibrahim Hamdan, Association of Agricultural Research Institutions in Near East and North Africa (AARINENA)

**Speakers:**

- Osama Ahmed Momtaz, Egypt
- Ahmad Abdul kader, Syria
- Michael Baum, International Center for Agricultural Research in the Dry Areas (ICARDA)

**Facilitator:** Alex Percy-Smith, Denmark

**The session:** The session was attended by 17 participants

An Issue paper was developed prior to the meeting and the speakers set the scene for discussions. The session presentation was divided into three parts.

The first part presented by Osama Momtaz (Agricultural Genetic Engineering Research Institute, Egypt) dealt with the characteristics of WANA region with several development problems, among them, poverty, lack of gainful livelihoods, shortage of water, droughts and desertification, and conflicts. It also included the AARINENA mission in contributing to the enhancement of agricultural and rural development in the WANA region through fostering agricultural research and technology development and promoting the exchange of scientific and technical experience and information, as well as strengthening collaboration within and outside the region to achieve greater degree of self-reliance in food and agriculture. It also reported on the geographical distribution of the AARINENA Networks and also reviewed the current status of biotechnology application in WANA Region.

The second part of the presentation was delivered by Ahmad Abdul Kader (General Commission for Agricultural Scientific Research, Syria) and dealt with the Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of agricultural biotechnology in the region.

The third part was delivered by Michael Baum (ICARDA, Syria) and dealt with the SWOT analysis of livestock biotechnology in the WANA region.

### ***Findings***

The WANA region can also subscribe to many of the points discussed in other sessions of the conference. However, a quick region-specific SWOT analysis was carried out during the discussion giving the following main results:

### ***Strengths***

The region has some well-equipped laboratories and some trained personnel. An Agri-biotech Network exists. The region has several centers of biodiversity and the region also has some centres of excellence

### ***Weaknesses***

In the region, there is a general lack of public awareness and poor communication about biotechnology. There is a lack of regional cooperation in this very heterogeneous region. In

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<sup>1</sup>This is the summary report of the parallel session organized by the Association of Agricultural Research Institutions in the Near East and North Africa (AARINENA) on the third day of the FAO international technical conference on Agricultural Biotechnologies in Developing Countries (ABDC-10) that took place in Guadalajara, Mexico on 1-4 March 2010 (<http://www.fao.org/biotech/abdc/parallel/en>). An Issue paper was also prepared for this session - see ABDC-10/AARINENA at <http://www.fao.org/biotech/abdc/backdocs/en/>

addition, there is a lack of harmonisation of biosafety regulations and a lack of risk assessment and management. Livestock and fisheries are increasing in demand but there is a lack of focus on these sub-sectors. There is a lack of integration of technologies into breeding programs and a lack of product development skills.

### ***Opportunities***

International organizations are in a strong position to contribute. There is a considerable potential for private sector involvement. Similar problems within the region mean that solutions may be shared. Developing regional projects to address shared constraints such as water scarcity, would strengthen the region. Develop a regional biosafety regulatory framework tailoring national priorities. More R&D based on demands from broad stakeholder group is required. Integrating the best outputs of agricultural biotechnology into conventional national breeding programs should remain the major direction.

### ***Threats***

Political instability and the socio-economic situation may be a threat in the region. The region is the centre of origin for many species, therefore, there is a risk posed by genetically modified organisms (GMOs) on biodiversity. Intellectual property rights is a matter of concern. There is an absence of regional policy and national strategies, setting priorities addressing the use and integration of biotechnology in the agricultural sector with lack of cooperation, dialogue among the different stakeholders including academia, research, industry, private sectors and government. Biosafety systems are not fully operational in many countries and harmonised in the region. There is a lack of national and international funding. Tools for technology transfer are inadequate and often inaccessible

The SWOT analysis was then translated into an outline for a Priority Action Plan.

### **Preliminary Priorities for Action Plan in Agricultural Biotechnology for WANA**

1. Map and assess available resources and capacities
2. Identify the gaps
3. Evaluate national strategies to introduce biotechnology into research programs
4. Prioritize a product of interest for the region.
5. Direct capacity building for human resources in the field.

This action plan must be further developed.