

A vibrant street scene in Tunisia, featuring white buildings with blue accents (doors, windows, and a bench) and red flowers hanging from the left. The street is paved with cobblestones and leads towards a bright sun in a clear blue sky. The text is overlaid in the center-right of the image.

**Tunisian Experience:
Public Awareness, Education
and Participation regarding
living modified organisms:
Achievements, challenges and
perspectives**

By Mr Hatem BEN BELGACEM
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**Twenty-fifth meeting of the Working Group of the Parties to the Aarhus Convention.
Thematic session on GMO's , 08 June 2021**

Biosafety Activities: Tunisia

To address the impact of the fast-expanding living modified organisms (LMOs) resulting from modern biotechnology on the economy and the environment, many activities have been undertaken:

- ❖ Ratification of the Cartagena Protocol on Biosafety (2003);
- ❖ Undergoing capacity-building projects and training activities
- ❖ Development of a permanent commission on biosafety and three sub-committees (Legal framework, Network of Laboratories for GMO Detection & Quantification and Communication, education and public awareness).
- ❖ Creation of the National Gene Bank;
- ❖ Creation of institutes, schools, research centers and laboratories specialized in handling biotechnology: The sectors that developed the biotechnology approaches are agriculture, health, environment and industry;

Capacity-Building Projects financed by the United Nations Environment Programme – The Global Environment Facility (UNEP-GEF)

Main objectives relating to public awareness, education and participation on LMO's/GMO's

- *Promote public awareness*
- *Establish and consolidate a fully functional and responsive regulatory regime taking into consideration participation of the public in decision-making according to the provisions of the Cartagena Protocol for Biosafety*
- *Develop initiatives to build capacities to promote public education and participation regarding LMOs/GMOs*

Implementation of a National Biosafety Framework

- *UNEP-GEF Project (2007 – 2015)*
- *National Executing Agency: Ministry in charge of Environment/ General Direction of Environment and Quality of Life (DGEQV)*

Building Capacity for Effective public Participation in biosafety matters : (BCH 1 et 2)

- *UNEP - GEF Project (BCH1: 2007 – 2008 & BCH2 2011 –2013)*
- *National Executing Agency: Ministry in charge of Environment/DGEQV*



République Tunisienne
Ministère de l'Équipement,
de l'Aménagement du Territoire
et du Développement Durable
Développement Durable



Implementation of National Biosafety Framework in Tunisia

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Project GEF / UNEP (GFL – 2328 – 2716-4953); National Executing Agency: MEDD / DGEQV; Cost of the project: 927.000 US\$; GEF fund 848.900 US\$; Co-financing: 78.000 US\$ (in cash); Duration of the project (June 2007 – Mars 2015)

MAIN OBJECTIVES

- ❖ To integrate biosafety in to a national development strategy;
- ❖ To establish and consolidate a fully functional and responsive regulatory regime in line and other international obligations;
- ❖ Prepare specific training guides and manuals;
- ❖ Enhance existing institutional facilities and infrastructures to undertake GMO detection and monitoring activities;
- ❖ Set up a mechanism for monitoring of enforcement;
- ❖ Promote public awerness and participation.

Output 5: Public awareness, participation and education

- ❖ Organization of several meetings of awareness
- ❖ Organizing a week of biosafety during the last week of may 2013 for many NGO and different stakeholders : information & awareness
- ❖ Organizing the days of biodiversity and biosafety during the last week of may 2015 : information & awareness, media involved
- ❖ Edition and dissemination of an interactive Cd rom on GMO's in the different national events



- ❖ Translate, design and publication of technical guides, strategy and action plan on biosafety



- ❖ 2014 : Creation of commission of communication and public awareness

- ❖ Action plan of communication on biosafety was prepared and on going to be adopted

- ❖ Example of survey results with a sample of 2000 people

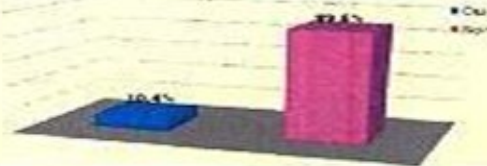
Avez-vous déjà entendu parler des OGM (Organismes Génétiquement Modifiés) ?

« Oui » « Non »



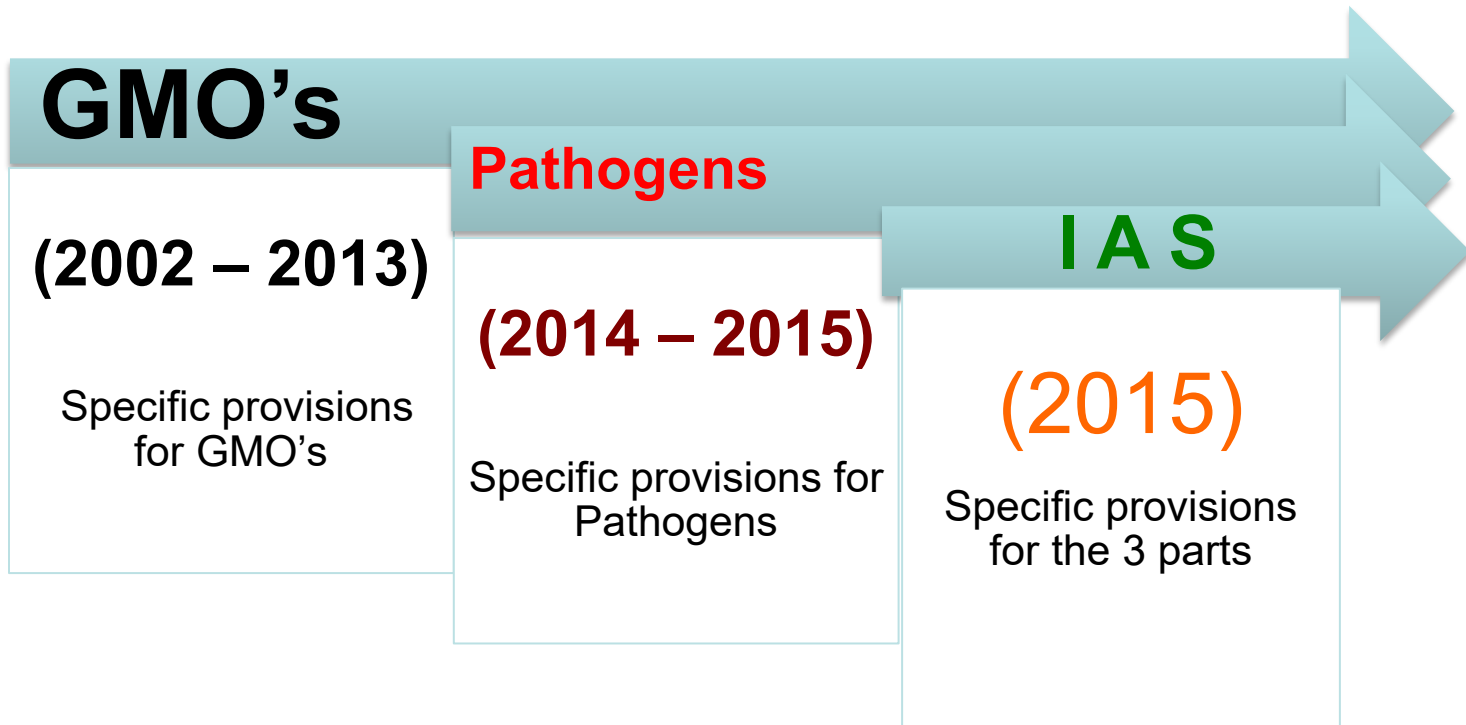
Considérez vous assez informé au sujet des OGM ?

« Oui » « Non »



Institutional Measures

Draft biosafety law (case of GMO's) : Include articles (22 and 23) about participation of public in decision-making



Creation of many NGO's specialized in biosafety and Biotechnology issues : Civil society directly involved in the process of awareness and education

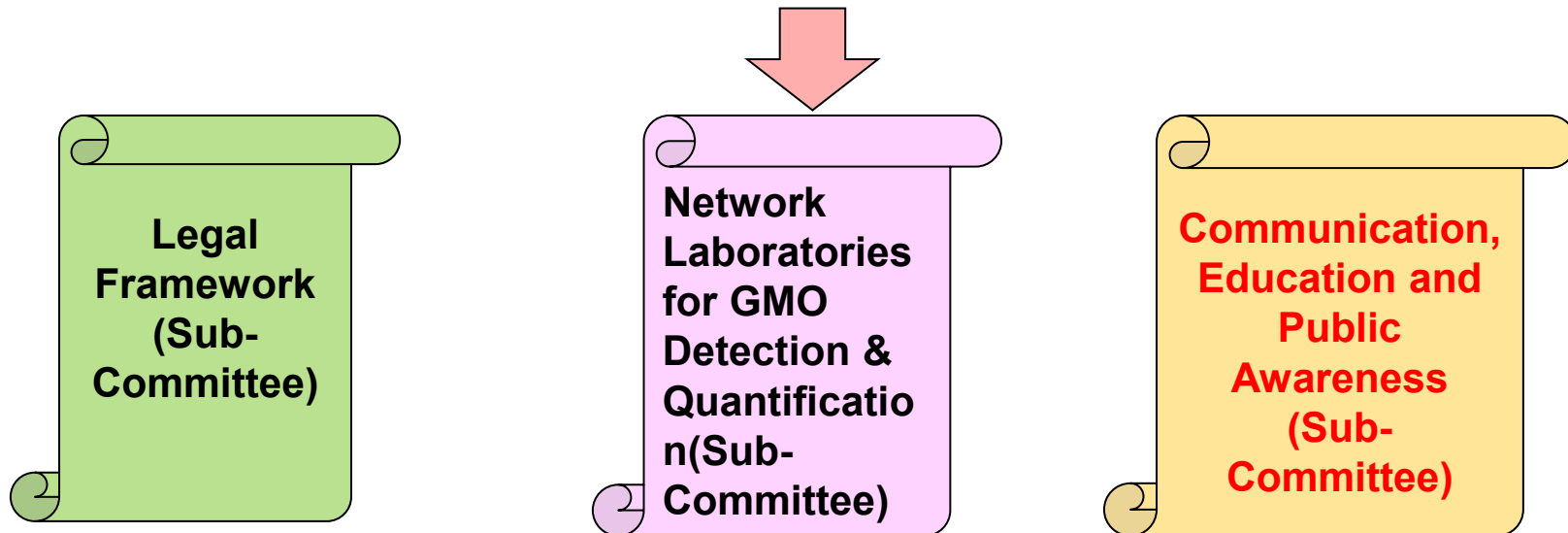
Institutional Measures

Program of Work on public awareness, education and participation (2011-2020)

Establishment of sub-committee of Communication, Education and Public Awareness regarding GMO's - 2014 :

1. Implementation of national communication plan on biosafety (case of GMO's).
2. Ensure the respect of our national obligations in accordance with Cartagena Protocol in terms of information exchange in Biosafety and activate the National BCH (in particular Articles 20, 21 and 23);
3. Develop and validate supports and outreach materials for public awareness and education

National Technical Committee on Biosafety



How has the public benefited? Awareness

❖ Development, translation and dissemination of publications and technical guides in native language

Introductory guide for biotechnology, biosafety and GMOs detection and quantification (in French and English)



Technical guide of the biological risk analysis related to the use of natural and genetically modified organisms (in French and English)



National Strategy and Action Plan on Biosafety (the case of GMO's)



Booklet and interactive CD on GMOs



❖ Dissemination: BCH :
<https://bch.cbd.int/database/record.shtml?documentid=109202>

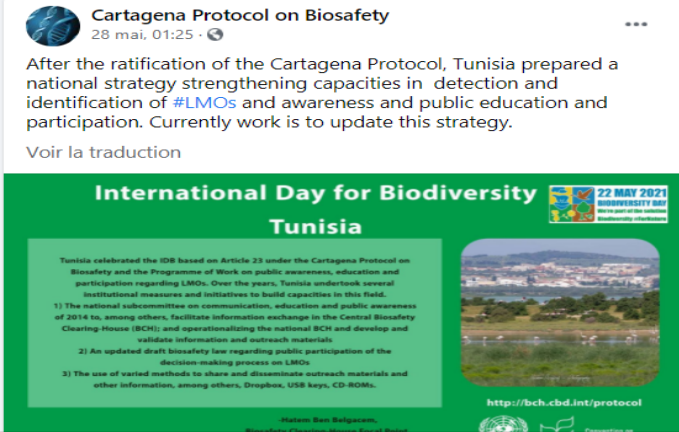
How has the public benefited: Awareness

National Level

Public awareness seminars and workshops :
Celebration of the International Day for
Biodiversity : opportunity to promote the different
activities related to biosafety issues and involve
local community in biosafety matters

Regional Level

GMO detection training for arabic countries: National Gene Bank in 2016



Workshop on Detection and Identification of Living Modified Organisms for Francophone Africa, Tunis, Tunisia in 2018



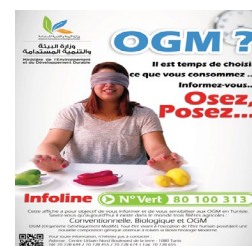
Public Education and participation

Biosafety in academic courses at universities: Biotechnology and Agricultural Institutes

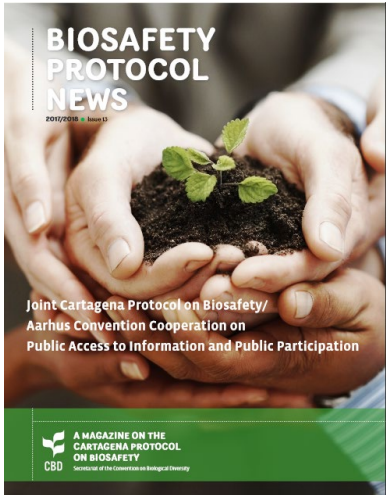
Civil society promoting biosafety education programs: Biosafety caravans



Preparing and adopting of a National Action Plan for Communication on Biosafety (4 Parts) : Many actions were developed to promote public participation



Useful links



Experiences and Lessons Learned from Tunisia

by Maher Ben Belgacem, Raja Chalhouni and Sana Jaballah

Abstract In Tunisia, biotechnology has been used in the agricultural sector. The Cartagena Protocol on Biosafety can be included in the national regulatory framework. The national regulatory framework for GMOs in Tunisia is based on the Cartagena Protocol on Biosafety and the Aarhus Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters. The national regulatory framework for GMOs in Tunisia is based on the Cartagena Protocol on Biosafety and the Aarhus Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters.

Historical Overview

In Tunisia, commercial agriculture has led to the reduced introduction of living modified organisms (LMOs) into the local environment through the importation of crops such as maize and soybean. As a result of the fast expansion of modern biotechnology on the economy and the environment, Tunisia undertakes several measures to promote public participation and access to information regarding biotechnology.

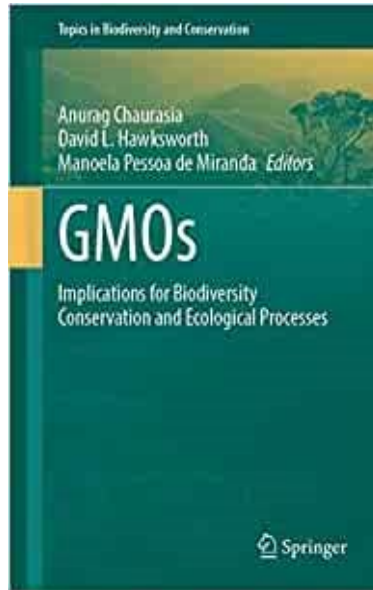
Tunisia took part in several capacity building initiatives. For example, Tunisia is among the 18 countries that participated in a pilot project on the development of the National Biosafety Regulatory Framework (NBRF) in cooperation with the United Nations Environment Programme and the Global Environment Facility (GEF). In the context of this project, a National Biosafety Regulatory Framework was drafted including two volumes. In the same year, Tunisia ratified the Cartagena Protocol on Biosafety on 23 January 2004. Several institutions including academic, research centers and laboratories were created, in particular the National Gene Bank funded in 2004. To support the NBRF, in many countries, Tunisia also benefited from the financial and technical support of the GEF. The NBRF includes national capacities for the development and implementation of the NBRF and the Biosafety Clearing-House project (BCH and ICH). These projects are highly advantageous to enhance familiarization of scientific-based information and to provide access to information and public participation opportunities to government institutions, civil society and other stakeholders.

Institutional measures and capacity building to promote public awareness and education

After ratifying the Cartagena Protocol on Biosafety, Tunisia adopted the Programme of Work on public awareness, education and participation concerning the Cartagena Protocol on Biosafety (CPB) in 2003 and extended it until 2008 in response to the need to improve the implementation of Article 23 of the Cartagena Protocol. Tunisia undertook several institutional measures and initiatives to build capacities to raise public awareness and promote public education regarding LMOs/GMOs. Some of these measures also contribute to access to information and public participation and include:

- The national subcommittee on communication, education and public awareness was created in 2004, to, among other functions, exchange information on LMOs in the BCH and operationalize the national BCH including the development and validation of information and outreach materials;
- Regulations were developed and the draft biotechnology law updated regarding public participation in the decision-making process on LMOs, according to the provisions of the Cartagena Protocol (namely articles 10, 11 and 15);
- In 2004, a new NGO was established, the Tunisian Association for Biosafety and Environmental Education (TABEE), to, among other things, raise awareness among various social groups regarding issues related in particular to biosafety; and
- Various outreach materials and other information were shared and disseminated through, among other things, brochures, CD ROMs, CD-ROMs.

Biosafety Protocol News 2018/ CBD, Biosafety Unit : Experiences and Lessons Learned from Tunisia
<https://bch.cbd.int/protocol/outreach/newsletter/tunisia's%20article.pdf>



Tunisia Chapter on the GMO's Implications for Biodiversity Conservation and Ecological Processes book published by Springer : The Use of Modern Biotechnology in Tunisia – Regulatory Framework
https://link.springer.com/chapter/10.1007/978-3-030-53183-6_25

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GMOs pp 501-511 | Cite as

Tunisia—The Use of Modern Biotechnology in Tunisia – Regulatory Framework

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Chapter

Challenges and Priorities

- ❖ **Setting in place a national legal biosafety system**
- ❖ **Capacity to mainstream and promote biosafety into other plans and sector development policies (Industry, Agriculture, Health)**
- ❖ **Mobilization of financial resources to implement the NFB including some components of communication plan on biosafety : Process Sustainability**
- ❖ **Private sector involvement**
- ❖ **Socio-economic consideration**

Next steps

- ❖ **Adoption of National Biosafety Law taking into consideration :**
 - ❖ Post-COVID recovery plans
 - ❖ Adoption of National Food and Feed Safety law : 2019
 - ❖ Creation of the National Authority for Food Safety : 2019
- ❖ **Capacities Building of Network of National Official Control Laboratories for GMO Detection & Quantification : training on BRM ; Synthetic Biology, Sequencing; Personal Protection Equipemets that meet with Biological Security standards;**
- ❖ **Accreditation Process of National Control Laboratories for GMO's,**
- ❖ **Implementation plan for the Cartagena Protocol and capacity building action plan (2021-2030)**

شكرا على حسن المتابعة

Thank you for your attention

Merci pour votre attention

Gracias por su atención

Спасибо за внимание