



Ministry of Agriculture

*Institution de la Recherche et de l'Enseignement
Supérieur Agricoles*



PRIMA opportunities for Southern Mediterranean Countries: Case of Tunisia

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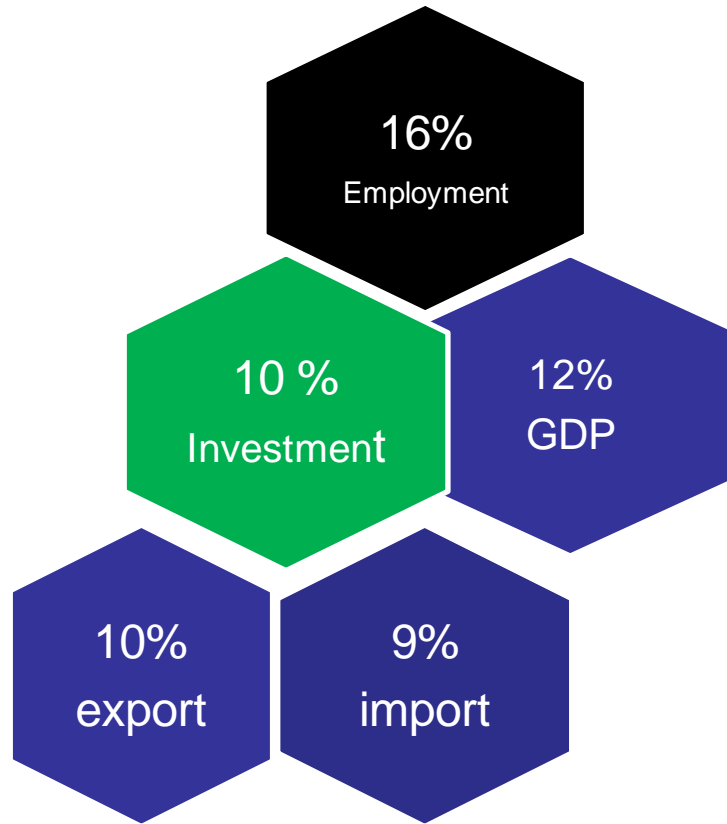


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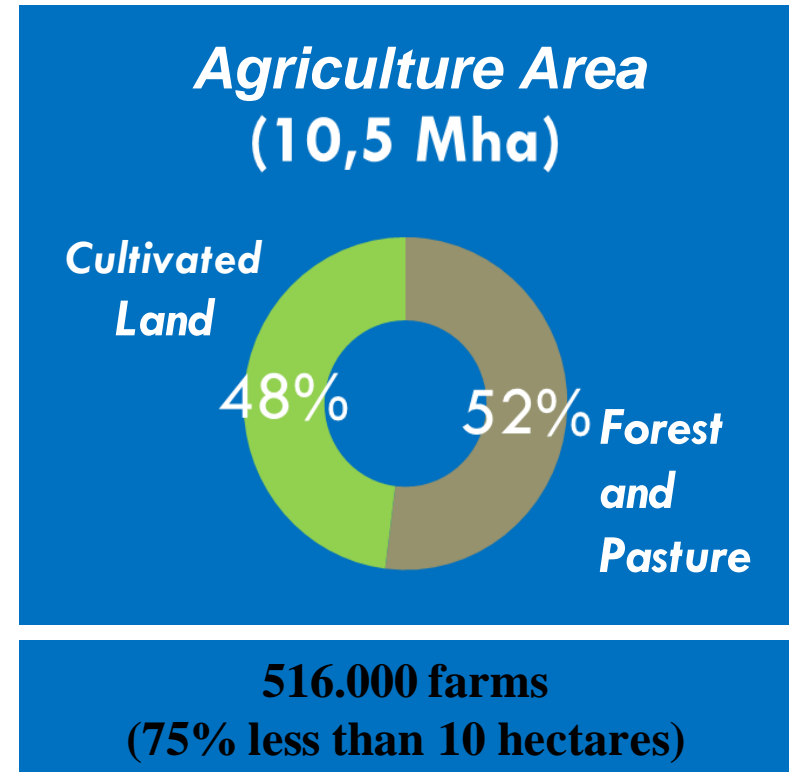
Outline

- ❖ **Some indicators of the Agriculture sector in Tunisia**
- ❖ **Main challenges of the agriculture sector in Tunisia**
- ❖ **Overview of the Agricultural research system in Tunisia**
- ❖ **Main research axes and priorities related to PRIMA**
- ❖ **Conclusion**

The agriculture sector in Tunisia



The sector is growing at around **3%** per year



(cereals 32%;
Olive Growing 32%).

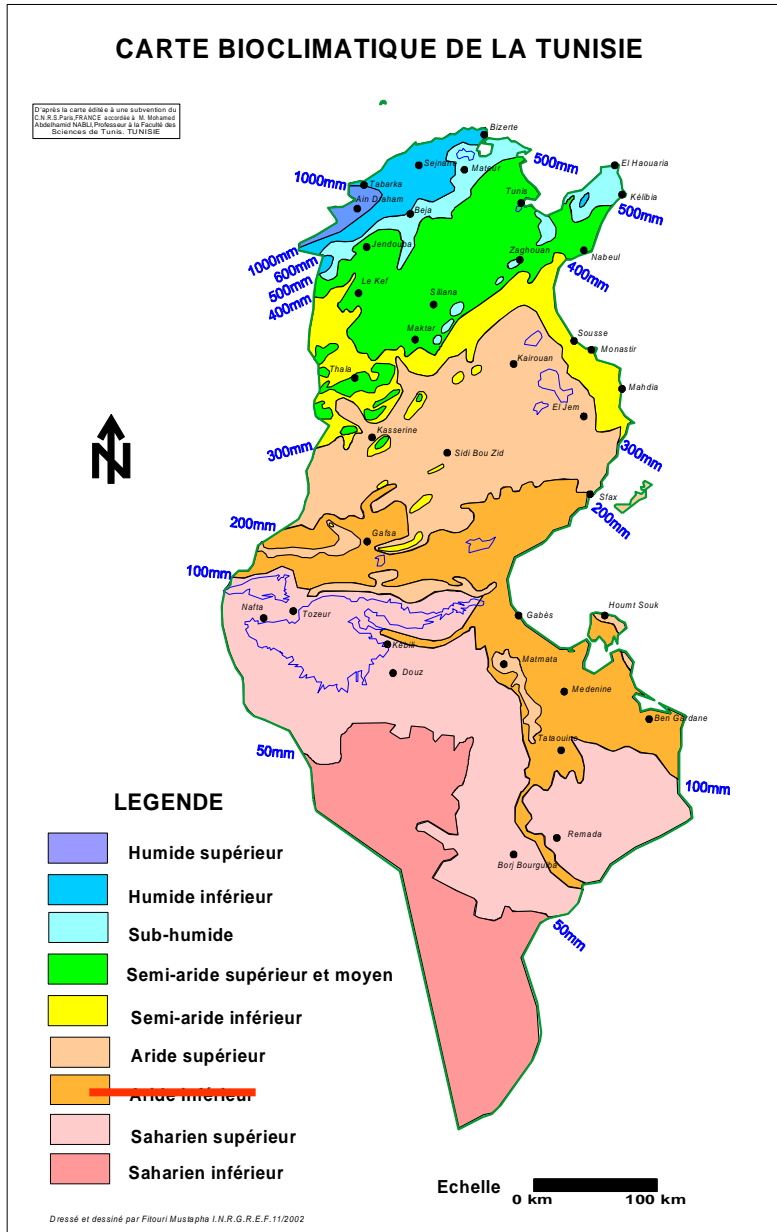


Main challenges of the agriculture sector

The main challenges are:

1. Food security in a globalized and volatile international environment
2. Contribution to growth: Production, productivity, added value and investment
3. Preservation of natural resources (eau, soil) in a context of climate change
4. Integration of value chain and organization of the profession
5. Territorial development - Social equity

Climate change effects



- The **most vulnerable** region because of high climatic variability.

- **Water deficit and drought** represent a permanent risk for rainfed agriculture.

• Drought may occur: 1 year out of 3 or out of 4.

- Severely dry years (deficit > 50%), drought persistence: more frequent in the **south and the center** than in the North.

- Moderate temperatures, but **very hot conditions** frequent may occur from May to September

- **High temperatures** (45 C in August) may affect cereal production when they occur in the growing season by increasing the evaporation rate.

Features and characteristics of water resources in Tunisia

Water challenges in Tunisia

Availability of water resources

Limited resources in quantity

A temporally variable resources

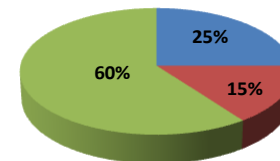
A heterogeneous spatiotemporal distribution of the resources

Quality of the water resources

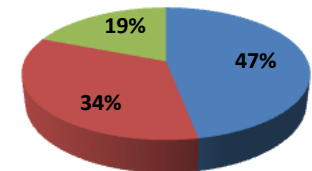
A variable salinity of the water resources

Per capita annual water availability (467 m³) < Threshold of water poverty (scarcity) (500 m³).

- ◆ Great seasonal variability of rainfall.
- ◆ Strong inter-annual variability of rainfall: it varied from 21 to 60 milliards de m³ /an.



■ North 400 mm/year / < Rainfall < 1500 mm/year
■ Center 200 to 400 mm/year
■ South 200 à 50 mm/year



■ Salinity < 1,5 g/l
■ 1,5 g/l < Salinity > 3 g/l
■ Salinity > 3 g/l

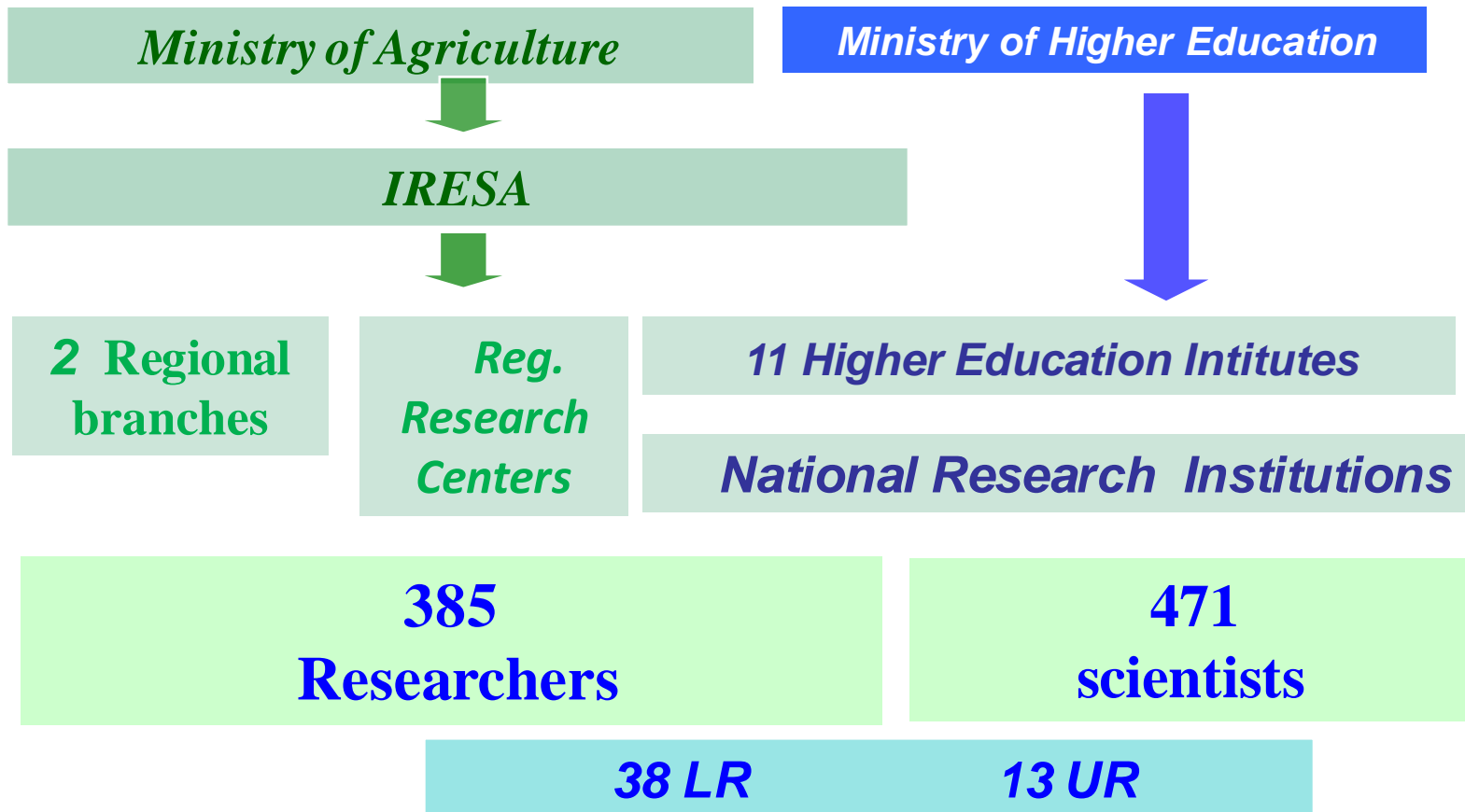
The Agricultural Research in Tunisia:

More than one century

The Agricultural Research in Tunisia backs to more than one century :

1. 1897: Establishment of Livestock Laboratory (Actually Veterinary Institute of Tunisia; **IRVT**)
2. 1898: Colonial School of Agriculture (actually **INAT**)
3. 1913: Botanic Service of Tunisia (actually **INRAT**) Interest: cereals (varietals creation, techniques,...)

Research and Higher Education Institutions of IRESA



Geographic distribution

Research Center

CRRGC



CRRSB



CRRHAB



CRRAO

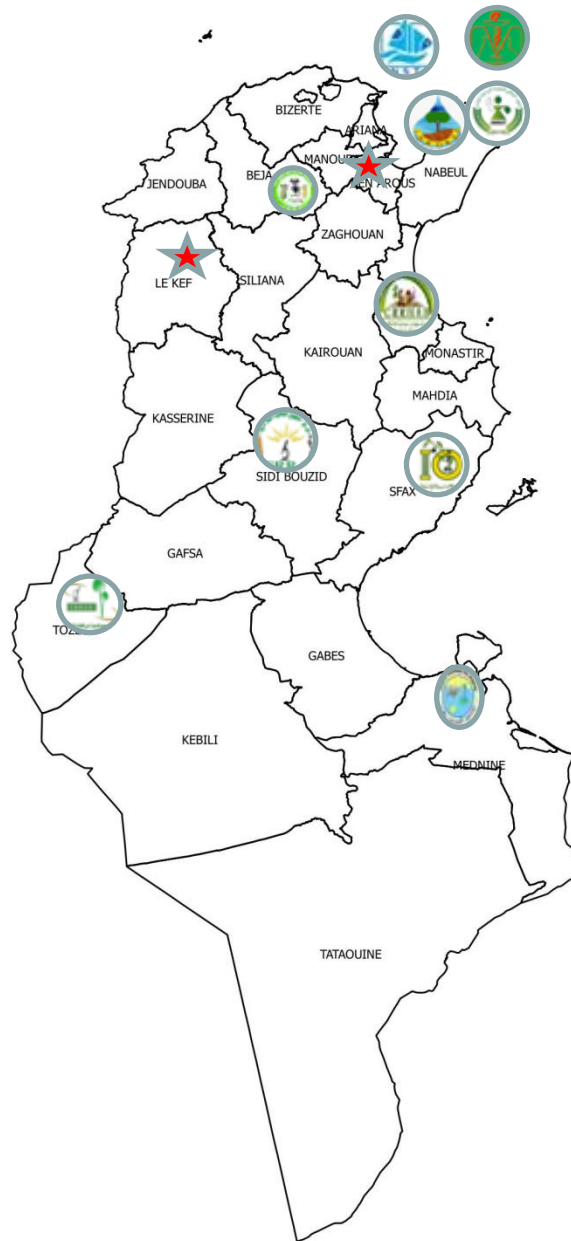


Regional Branches

Mornag



Kef



Research Institutes



IRVT



INRAT



INSTM



INRGREF



IO

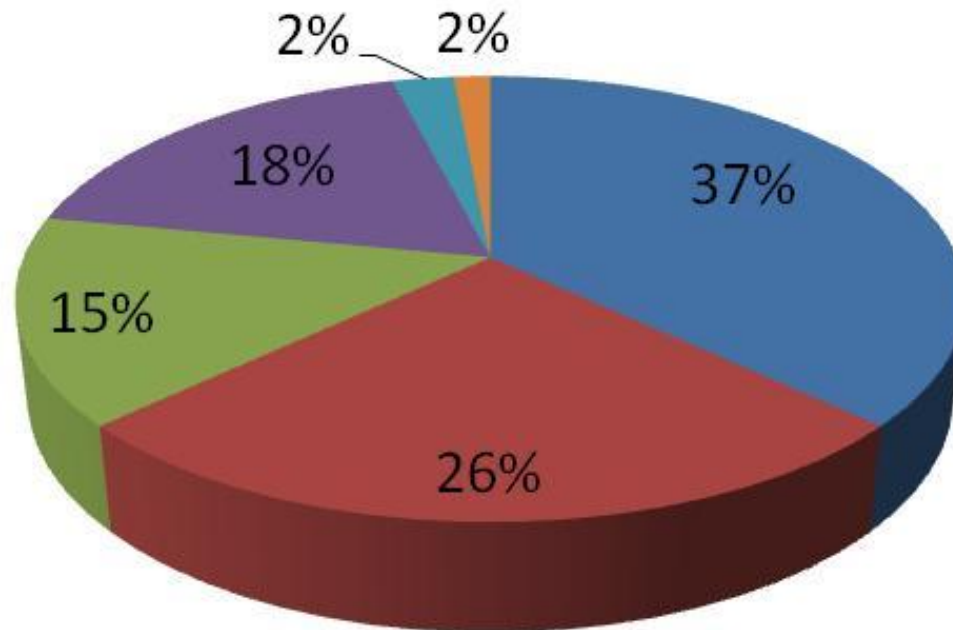


IRA

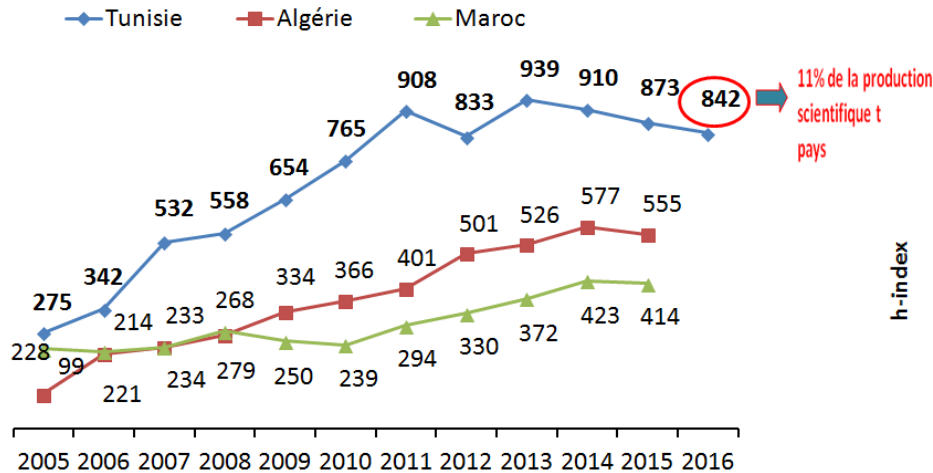


Main research activities

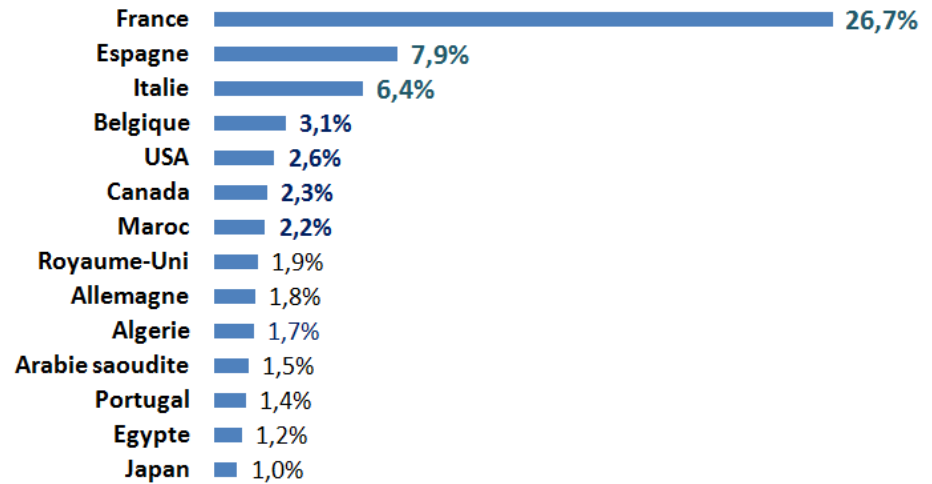
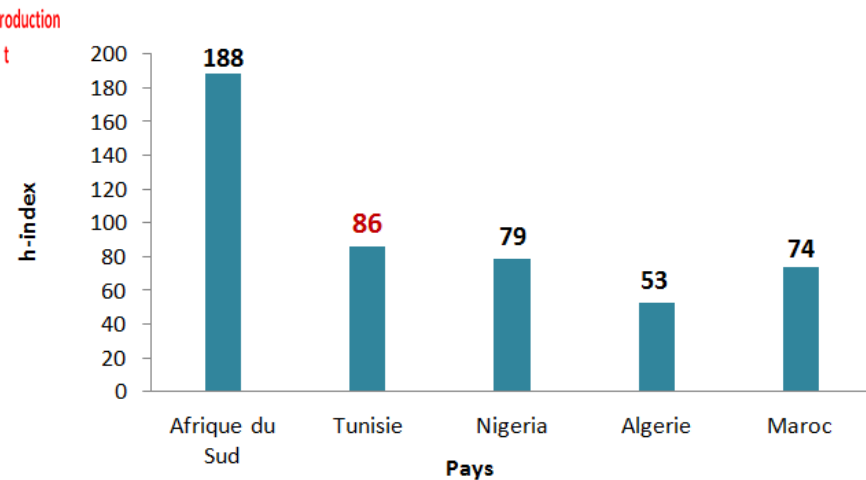
- Crop Production, Protection
- Natural Resources
- Fisheries
- Livestock and animal health
- Agro-economy
- Renewable energy



Research activities: scientific Production



Source : Scopus



Main agricultural Research Priorities in Tunisia fitting with PRIMA (In Progress)

- Improving the efficiency and durability of farming systems :
 - Development of innovative water savings techniques and agronomic packages (Conservation agriculture)
 - Development of varieties specifically adapted to rainfed agriculture, water scarcity and rainfall variability
 - Improvement and valorisation of local genetic resources
- Valorisation of non-conventional waters :
 - The treated waste water: complementary treatment
 - The desalinization of salt water, brackish water and sea water: development of innovative approaches, technico economic and environmental evaluation of operational solutions within a systemic approach
- Sustainable and well structured agro-food value chain

Conclusion

1. Exchange of Data Bases :
 1. Laboratories and research unities
 2. Finished projects (Arimnet, EranetMed, Bilateral projects, ENICBCMED, WW2015, ..)
2. Organization of brokerage event
3. Organization of regional Prima NCP meeting to exchange on experience, best practice and stakeholders feedback and topics of interest ;
4. Organizing meetings between EU and southern stakeholders to reinforce the Networking for partner search and share of working procedures



Thank you for your attention...
muchas gracias





Tunisia, the 4th exporter of olive oil.

Olive oil represents almost 47% of agri-food exports and 5.5% of total exports of the country. Tunisia exports about 70% of its production, an average of 165,000 T/year, and is 4th exporter country.

Besides the traditional market (UE), Tunisia exports to other distant markets such as the United States, China, Japan, South Korea, Australia, Russia...