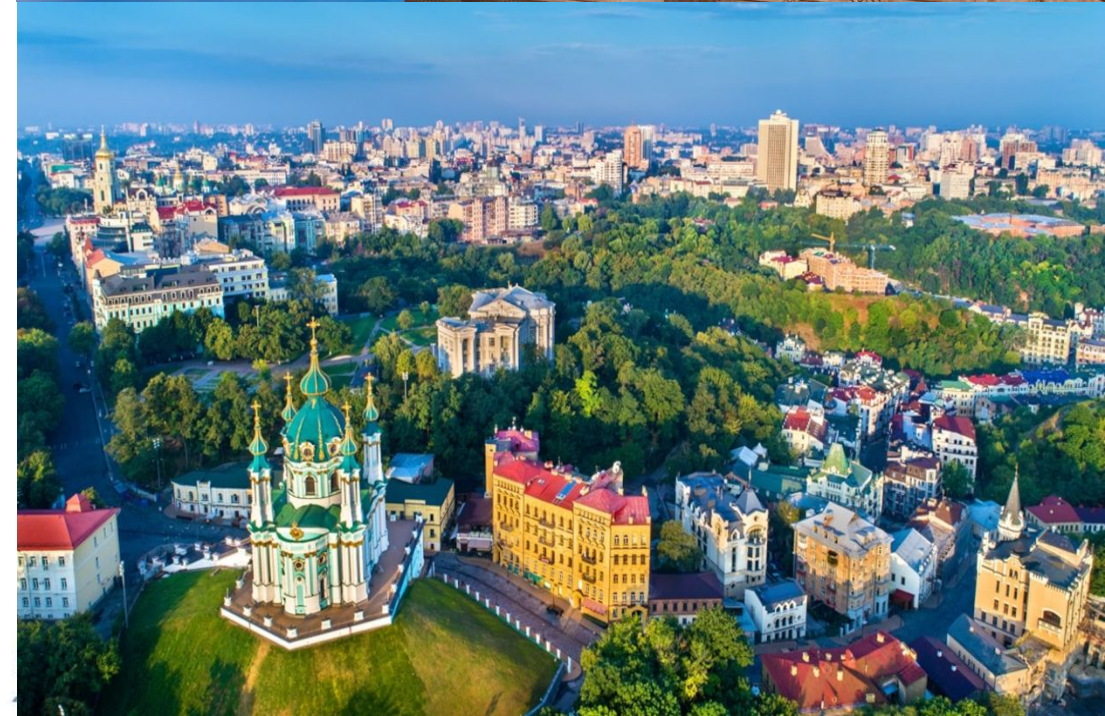


WAR AND POST-WAR AGRICULTURE OF UKRAINE

View from Morocco: Strengths and Challenges of the Local Agri-Food Sector and Cooperation options

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Introduction

- Morocco maintains close relations with Europe and, particularly with Ukraine
- Cooperation between Ukraine and Morocco is not limited to agricultural products but covers different sectors, mainly education
- EU-Morocco Green Partnership. It will focus on three main thematic axes:
 - Climate and energy;
 - The environment; and
 - The green economy
- Morocco is investing heavily in green sources of energy to reduce its import on petroleum
- From Moroccan territory that the gas pipeline goes from Nigeria to Europe, making the country an incredibly important geopolitical and geoeconomic location

Development of the agri-food sector in Morocco

- Agriculture accounts for almost 40% of the total employment and 12% of the total value added in the country.
- The Moroccan economy is heavily influenced by agricultural production, which is in turn influenced by the availability of water for irrigation
- In 2018 the food processing industry was Morocco's second-largest industrial subsector, accounting for 25% of the total industrial GDP with revenues over MAD 100 billion (EUR 9 billion) (EU Delegation to Morocco, 2020).
- In 2016, the food processing industry employed 141 000 people, organised in 2 050 establishments, representing 23% of the industrial workforce

Agrifood system challenges

- Soil erosion and soil degradation;
- Drought, often coupled with inefficient water management systems;
- Disparities between large and small farms due to parceling of property;
- Lack of sufficient investments;
- Lack of proper diversification of crops;
- Water scarcity;
- Research and innovation (development and adoption)

International trade

- agriculture accounted for approximately 20% of total imports and about 21% of the country's total exports in 2019;
- In 2018, vegetable products accounted for 9.3% (USD 3.12 billion) of all exports, followed by foodstuffs (any substance used as food or to make food) at 6.7% (USD 2.24 billion).
- Among foodstuffs, the most prominent products exported are processed fish and processed crustaceans, which together account for 64% of all exported foodstuffs with a total export value of USD 1.4 billion in 2018.
- Processed vegetables, fruits and nuts accounted for around USD 220 million, around 10% of the export value for all foodstuffs.
- The food processing industry has particular ties to specific Moroccan regions
- The African Export-Import Bank has signed an MoU with Morocco aimed at establishing a \$1 billion Morocco-Africa trade and investment promotion program to boost both intra- and extra-African trade

Agri-food and policies

- Since 2008, Green Morocco Plan was the most important strategy by far for the agri-food sector. The GMP, launched in 2008, was designed to promote the development of 1.15 million jobs by 2020 and triple the income of nearly 3 million people in rural areas.
- The strategy was designed to support the development of agri-food by fostering closer links between producers and the processing industry (integration of upstream and downstream processes) and fostering integration/cooperation as an organizational model (i.e. bringing together producers and farmers).
- The GMP will continue through the Green Generation strategy which objective is to consider the human element as a priority in any development related to the agricultural sector, while the second relates to continuing the dynamism of agricultural development and focusing on its modernization. As well as creating a new generation of "young entrepreneurs" in the agricultural sector.

Morocco – Ukraine relationship

- Ukraine and Morocco are united by a long history of friendship and mutual respect;
- The last discussions on bilateral relations statement was about food security in Africa and the need for further uninterrupted Grain Initiative which plays an important role in the supply of food to global markets;
- During 2023, negotiations between Ukraine and Morocco on the simplification of trade to determine promising areas of economic cooperation, increased trade volumes and revive direct business contacts.

Impact of the war on Moroccan economy

- The Ukrainian economy, is accounting only for 0.2% of global output,
- Ukraine plays a critical role in the international food market, supplying 6% of the world's cereal exports, and 10% of vegetable oil and oil seed exports.
- The share is even more important for wheat, reaching 10% of global exports, and sunflower oil, at 50% of world exports.
- The Donetsk and Luhansk regions, where military operations are especially intense, are the source of 8% of Ukrainian wheat production and 9% of sunflower seed
- The effects of the war on African energy importers, which also tend to be food importers, is strongly negative.
- Morocco is the largest African economy most likely to suffer a big adverse shock from the war since Morocco's imports of oil, gas, and coal equaled 6.4% of GDP in 2019

Impact of the war on Moroccan economy

- Morocco is also a large importer of cereals and the cost of imported cereals as a share of GDP was 1.4% in 2019,
- Besides the impact on Morocco's external balance, the surge in oil and food prices will add to the high budget deficit, estimated at 6.5% of GDP this year, since cooking gas is subsidized.
- Rising prices will also intensify inflationary pressures, as in the case of gasoline and other fuels where prices are liberalized;
- Most African energy importers are poor and less industrialized economies, with large agricultural sectors,
- They are not as dependent on imports of energy and cereals as Morocco, but they have less fiscal space to react, and a bigger proportion of their population is close to poverty thresholds, and even more exposed to food price shocks, than in Morocco (Policy Brief - N° 11/22 - February 2022).

New opportunities

- The African Continental Free Trade Area (AfCFTA) represents a significant effort to enhance economic integration among African countries. If successfully implemented, it has the potential to bring about several transformative changes to the economic and social landscape of the continent.,
- The AfCFTA members are setting SPS standard to be equivalent to the international norms, ensuring best practices and improving sanitary and phytosanitary system in Africa for food security and trade.
- As part of African Union, Morocco has signed the AfCFTA and potential agricultural products can be exported to African countries
- Morocco's exports of fertilizers, amounting to 4.5% of GDP in 2019, compete with Russia's on European markets,
- Morocco's exports of fruits and vegetables and fish, which account for 2.6% of Morocco's GDP, compete with Europe's exports in Russia. Another example is South Africa, for which exports of fruits and vegetables constitute 1.1% of GDP.

Impact of the AfCFTA

- Industrialization
- Economic integration
- Human capital and institutional advancement
- Environmental sustainability



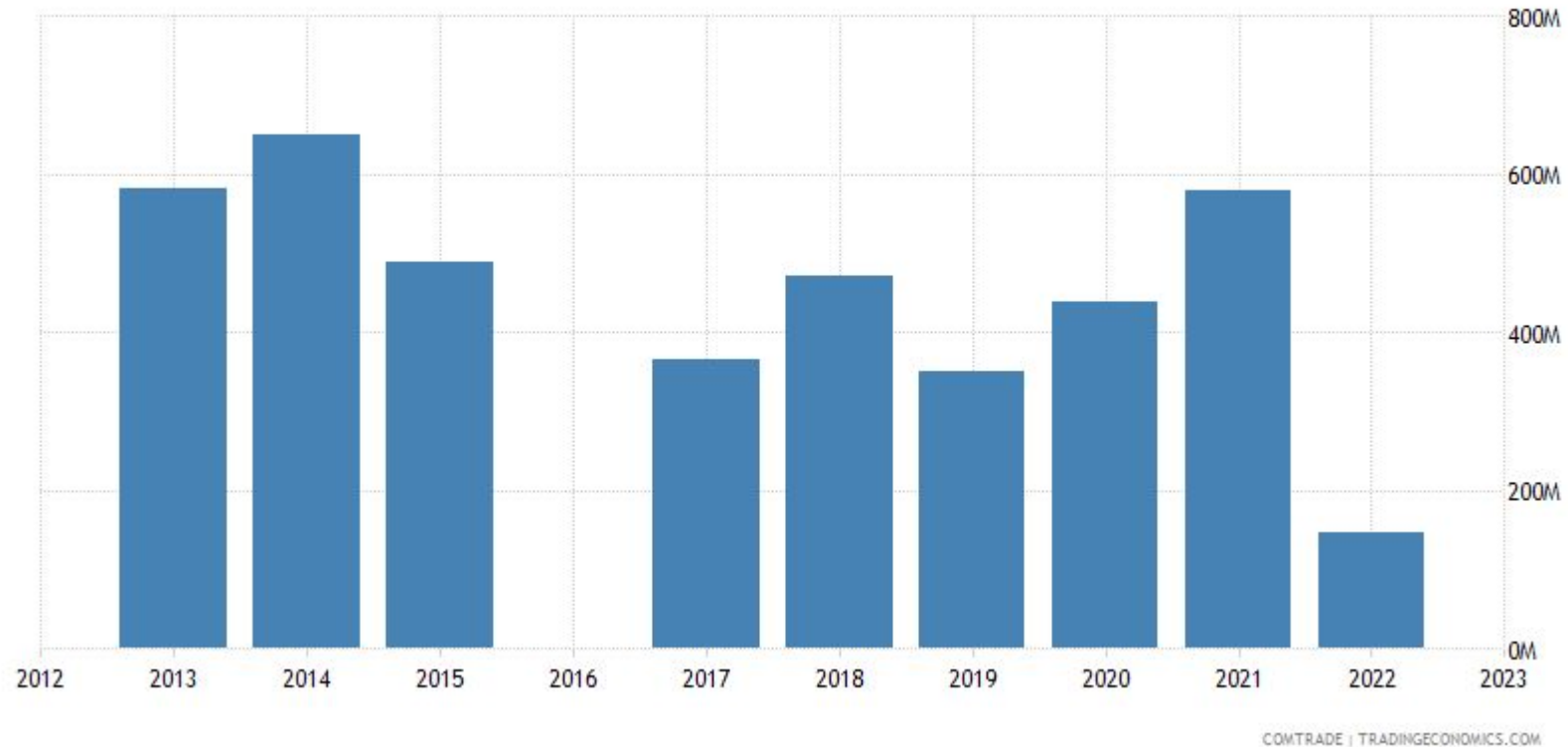
African countries can position themselves as global competitors and take advantage of the opportunities presented by the AfCFTA

- By promoting innovation and technology, investing in critical infrastructure, and improving the quality of their products,
- By increasing the adoption of digital technologies across various industries, with growing interest in e-commerce platforms, fintech solutions, mobile money, and other digital tools that are transforming how business is done on the continent.
- By offering significant opportunities for investment and business across the continent (manufacturing, green technology, and minerals development, etc..)

Other African's initiatives: Alliance for a Green Revolution in Africa (AGRA)

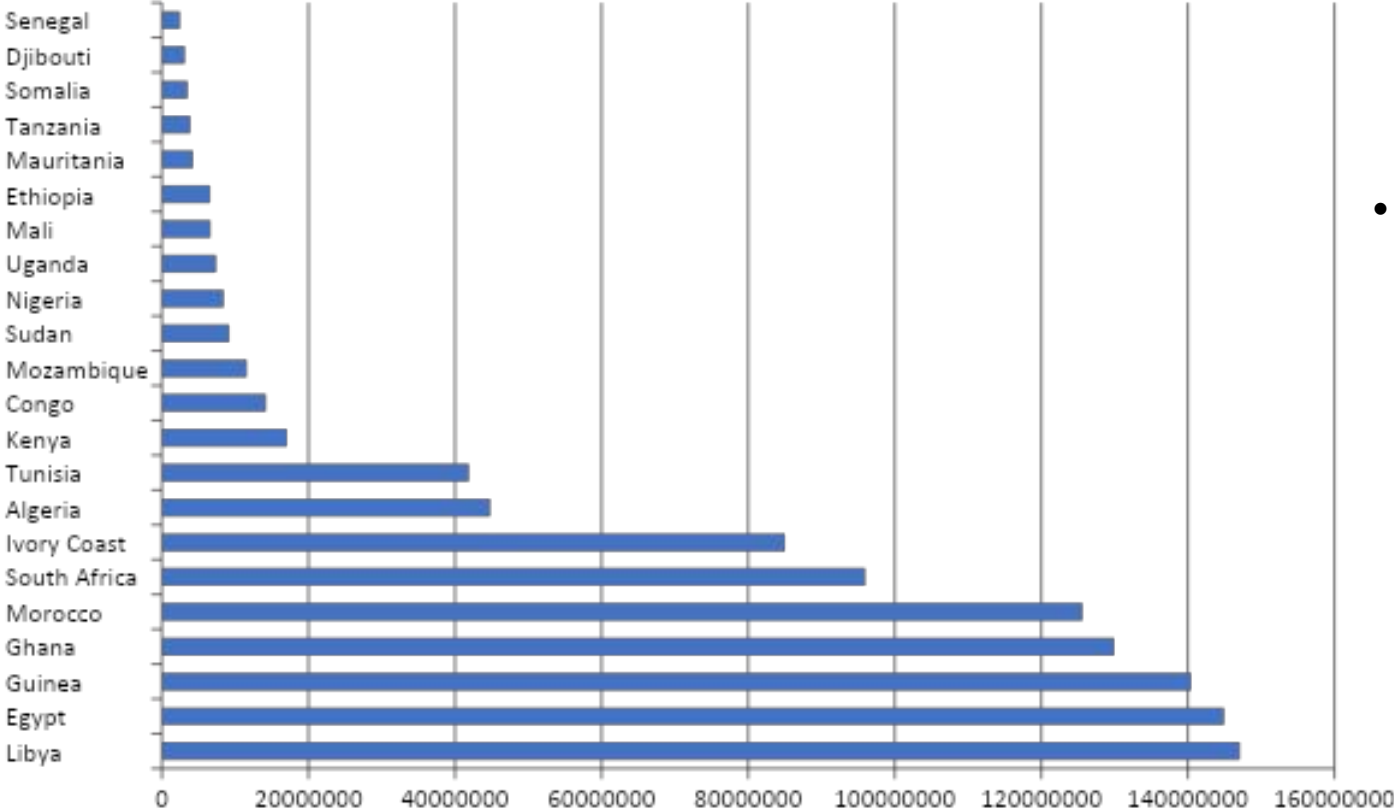
- Created in 2006 with the objective to enhance smallholder African farmers' productivity and prosperity,
- The 2017 strategy of AGRA called Partnership for Inclusive Agricultural Transformation in Africa (PIATA) targets:
 - Policy and state capacity to strengthen government capacity and accountability and the policy environment;
 - System development to build and expand integrated delivery systems; and
 - Partnerships to facilitate alignment between government priorities and private-sector interests.
- PIATA aims to transform the agriculture sector into a driver of inclusive economic growth and improve food security for 30 million farming households across 11 countries

Morocco Imports from Ukraine



Morocco Imports from Ukraine was US\$146.26 Million during 2022, according to the United Nations COMTRADE database on international trade

Africa export to Ukraine in \$US in 2021



Agricultural products are the most imported products from Ukraine

- In 2022 Morocco exports to Ukraine about US\$ 38.66 M:
 - Dominated by cars 79%
 - More than 18% seafood and other agricultural products
- In 2022 Morocco imports from Ukraine US\$ 146.26 M:
 - Cereals represent about 32% of total value
 - Other agricultural products about 9% of total value
- In general, the structure of exported products and value are changing from year to year, in 2021 the total value of export to Ukraine was about US\$ 125 M, dominated by fertilizer and seafood

Agri-food development and future cooperation between Morocco and Ukraine

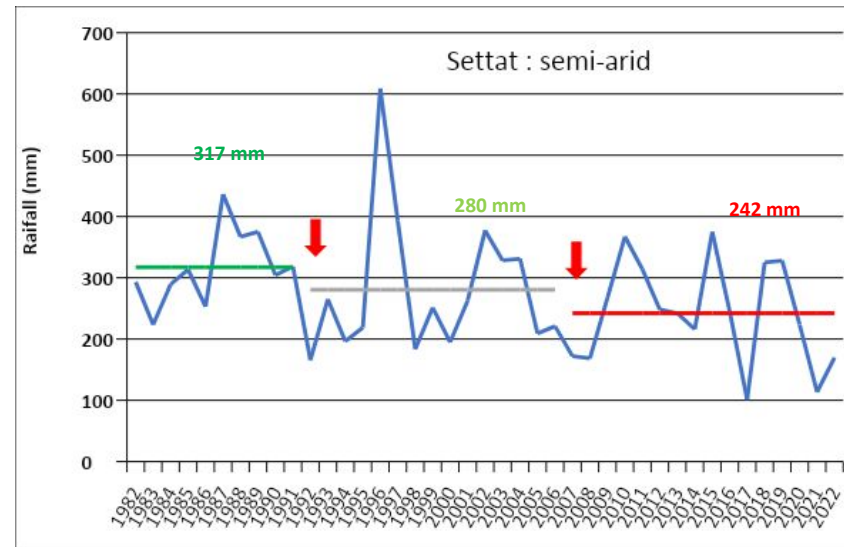
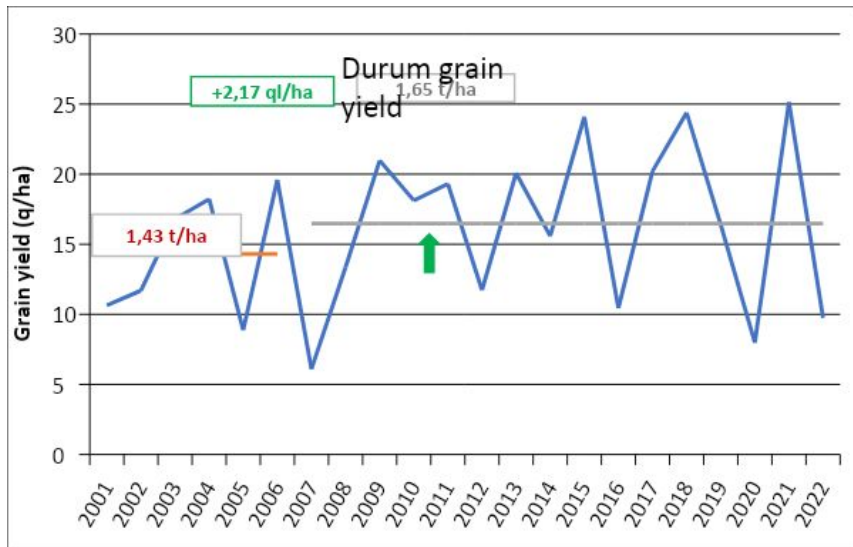
- Crop improvement and new plant varieties, mainly cereals. Develop common research programs and exchange expertise between Morocco and Ukraine;
- Capacity building and knowledge transfer in agricultural research and other sectors. Different issues will be targeted such as Agronomy, Agricultural Economics (mainly risk management, policy, technical efficiency), Breeding, ag-mechanization, entrepreneurship and gender issues; and
- Trade agreement and cereal market studies
- Collaborative research on critical issues facing agriculture in Africa, mainly Morocco and work more on mechanisms that can contribute to private sector engagement to achieve farmer's and government priorities

An overview of research on wheat at INRA Morocco: Importance of cereals

- 6 à 10 % de NGP
- 67% Calories needs
- 70% Proteins
- 638 g per capita day
- 5 à 6 millions ha (70% Ag. Land)
- 1,5 millions families

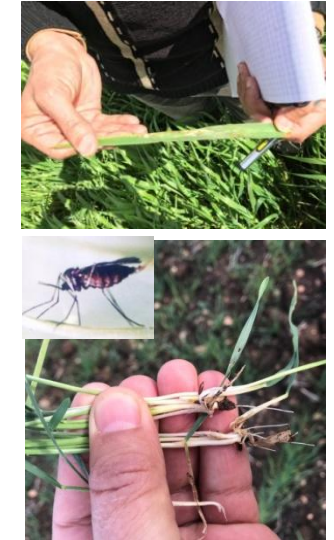
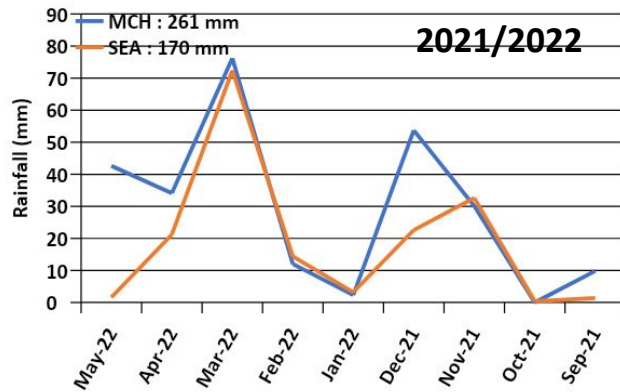
Wheat products:

- Bread wheat: breads, biscuits and other traditional preparations
- 380 gr per capita day
- Durum wheat: Bread (mix with BW), and couscous and other traditional preparations, Pasta
- 140 gr per capita day



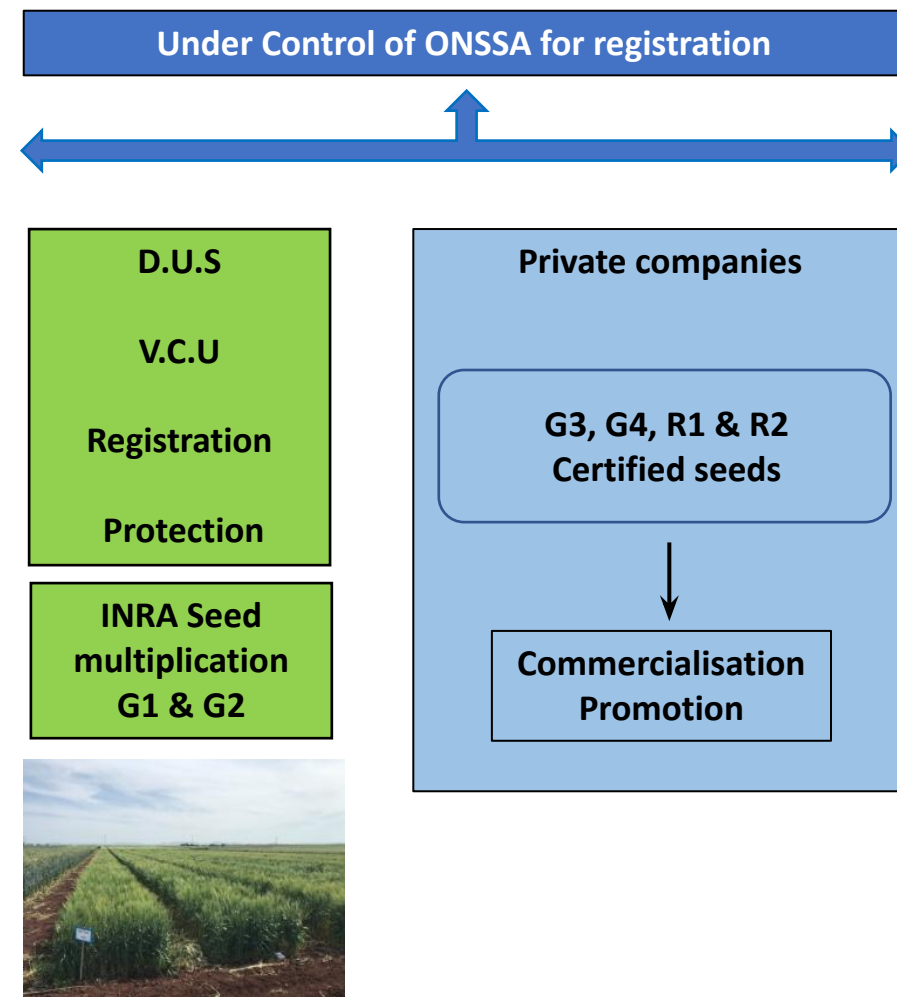
Durum production constraints in Morocco

- Biotic stresses (Foliar and root diseases, fungi, viruses and insect caused losses) ;
- Abiotic stresses (Drought, heat, colds and frosts, mineral deficiencies) :
 - Their interactions are worse than their single effects.
 - Drought is whole set of problems.**

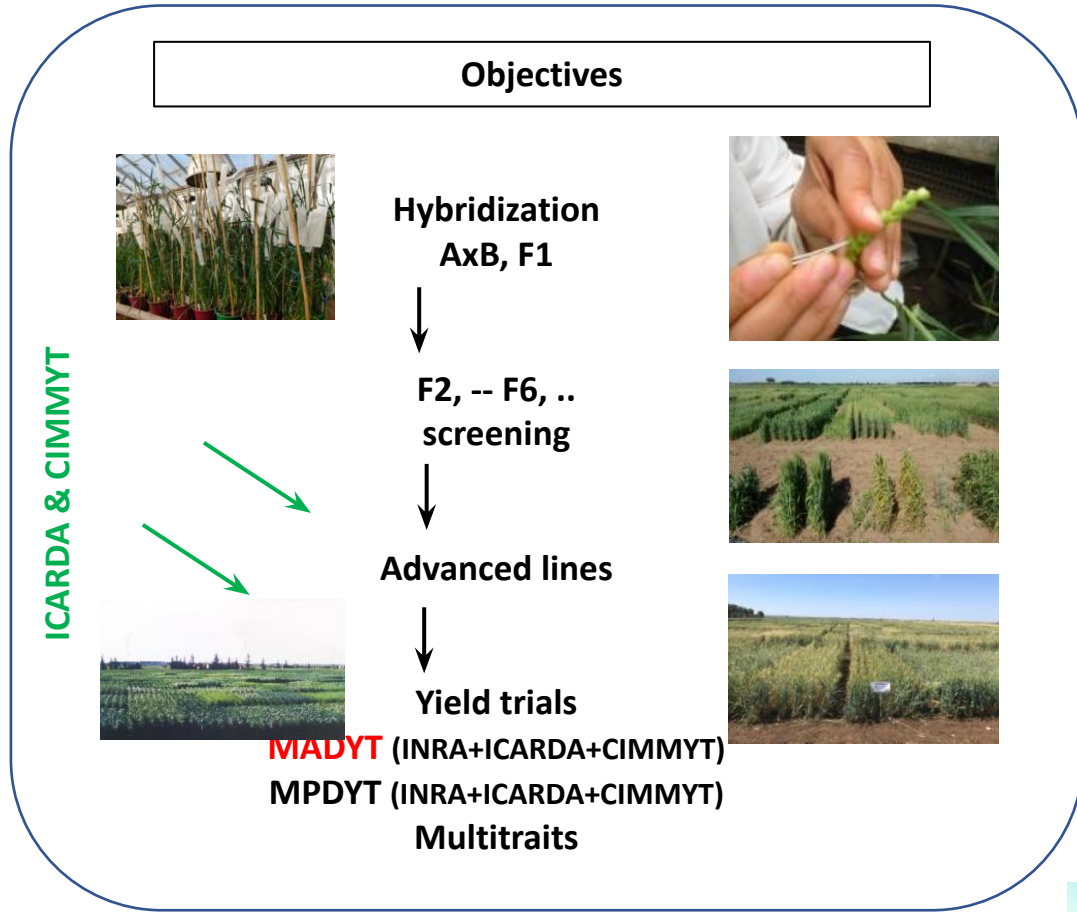


Variety registration process

Phase	duration	Organism
Research : crosses, selection, YT	5-10 years	INRA/ICARDA/CIMMYT
Registration in the catalogue	2 years	Comitee (ONSSA/INRA/Seed compagnies, ...)
Prebase seed multiplication	G1 } G2 } 3 years G3 }	INRA
Seed increase (farmers)	G4 } R1 } 2 years	Seed compagnies/farmers
Commercialisation	-	Seed compagnies



Durum wheat breeding program at INRA-Morocco



+ Off season in Annoceur



Tassaout
HT Irri



Sidi Allal Tazi
Diseases H. spot



Marchouch
Favorable



Annoceur
Montain Irri



Jmaa Shaim
Arid : DR HF



Sidi El Aidi
semi-arid



Variety released in 2022

MCGP IV

Name	PP targeted	Status	Description
<i>Jawahir</i>	Dryland	<i>Released</i>	<i>Hessian fly resistant, top yielding, drought tolerant</i>
<i>Zeina</i>	Dryland	Rejected (2 nd year)	<i>Hessian fly resistant, top quality, drought tolerant</i>



Conclusion

- Ukraine is an important partner for Morocco and Africa;
- Technology as a driver of change will benefit from a scientific and bilateral exchange between the two countries and Africa too
- Commercial and trade options can be developed according to the actual production conditions in Ukraine and available opportunities in Morocco (Fish, Fertilizer, etc.); and
- Dynamic exchange between the two countries that will cover scientific expertise, agricultural research specific programs and investment in agriculture
- Ukraine can play a key role in contributing to the development of a win-win commercial and scientific relation with Morocco and African countries (education, expertise exchange, collaborative research funded by EU, IFAD, WB, FAO and other International organizations including CGIAR)

Thank you