Session 13 - Revisiting a long lasting an unsolved problem with a systemic approach: the case of pulses development in agri-food systems

• Introduction: problem statement (Jacques Wery)
• Genetic options to increase crop resilience and cope with climate changes in Morocco (case of cereals and food legumes) (Faouzi Bekkaoui et al.; Morocco)
• Evaluation of Vigna spp. functional diversity (Marwa El Graoui et al.; Morocco and France)
• Pulses development in agri-food systems: sociotechnical lock-in and unlocking (Marie-Helene Jeuffroy et al., INRAE)

• Collective discussion towards a framework for renewed collaboration on food legumes between Africa and Europe)
Pulses are increasingly seen as key entry-point in agrifood systems transformation
An increasing demand by food industry and markets
We are still far from pulse-cereals cropping systems

Pulse every 6 years or more in most countries

P*100/(P+C) calculated with FAO Stats

Egypt imports 80% of its pulses
Genetic diversity is largely underutilized

**Interspecific agrobiodiversity**

Pulse diversity is neglected in research and policies on agri-food systems

...*We gathered data for 17 functional traits and six agroecosystem properties for 43 pulse species.*


**Intraspecific agrobiodiversity**

- Genetic options to increase crop resilience and cope with climate changes in Morocco (case of cereals and food legumes) (Faouzi Bekkaoui et al.; Morocco)
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Should we breed for grain or multipurpose pulses? (eg. Fababean)

- Food Grains
- Vegetable
- Replace N and P fertilizers
- Feed Grains
- Straw for Livestock
- Pests, Diseases and Weeds Management
There are socio-technical lock-ins in the innovation and scaling process

Pulses development in agri-food systems: sociotechnical lock-in and unlocking
(Marie-Helene Jeuffroy et al., INRAE)
There is scope for a collective intelligence on pulses between Africa and Europe

Different and growing markets

Share experience
(e.g. food innovation process; climate smart cropping systems; policy; school cantines....)

Share research efforts
(e.g. plant breeding; training; agri-food systems co-design....)

Complementary Knowledge

https://youtu.be/7nA4Ao3VsSw