

# Fara General Assembly

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**Research impact to improving the productivity  
of the production systems in the NoA Countries**

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# The African Agriculture has an important challenge



- There is no doubt that future years will be determinant for African agriculture considering the challenge we have to face in order to cope with:
  - scarcity in water resources and grown areas
  - to keep pace with a growing demand

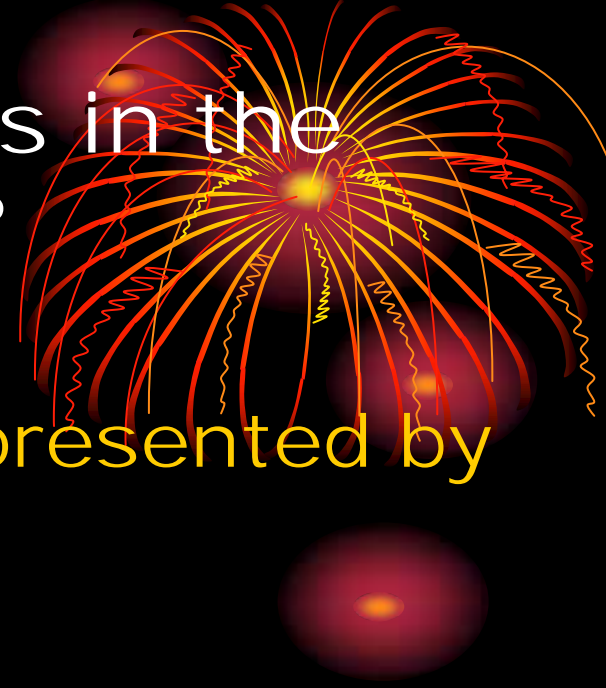
# The role of the research

- The new technologies developed by the research should be adopted to enhance productivity with an optimal use of natural resources for a sustainable agricultural production because sustainable agriculture has become the key component of any farming system.



# What about Institutions in the NoA countries?

- The NARS in The NoA is represented by different Institutions:
  - Research Institutes Full time, and some of them were created more than 100 years as INRA's Morocco, Algeria and Tunisia or ARC in Libya and Egypt
  - High Education Institutions which participate to realize the national programs



# Contribution of the Research in agricultural development in the NoA countries?

- The NARS were focused first to collect, study and characterize the local plant resources (cereal particularly) and their adaptation to the NoA regions. The results were used later to create the new varieties (cereal, legumes, forages, etc) which contribute to enhance the agricultural productivity



# Research's contribution to the agricultural development in the NoA countries?



- In some NoA regions where the productivity is relatively high after using the new varieties with high potential production, some constraints start to be limiting as diseases (fungal, virus, insects, etc.), and drought
- That's why the varieties created during the last twenty years were characterized by disease resistance and tolerance to drought. Two limiting factors in NoA and many other countries in Africa

# Missions & activities



- There are numerous activities according to the different fields of agriculture:
  - Organizing, conducting and publishing research works aiming at the improvement of crop and animal production;
  - Collecting and studying genetic resources that may be of interest to the NoA;
  - Creating crop varieties and improving animal breeds adapted to local conditions;
  - Improving farming systems by setting up appropriate techniques;

# Missions & activities



- There are numerous activities according to the different fields of agriculture:
  - Studying the conservation, the processing and the use of agricultural products
  - Conducting research works of physical and socio-economic nature that are of interest to the rural environment;
  - Contributing to technology transfer and to the advancement of extension activities;
  - Participating to graduate and post-graduate education by supervising and training students.

# Missions & activities



- The NoA Institute's scientific publications constitute the product of a great deal of effort to promote agricultural research. Thus, its contribution to agricultural knowledge must to be more and more important in the future;
- The network's appointment among NoA Research System is of big concern in agriculture because the exchange of research results and local knowledge presents a great deal of interest.

# Example of some new technologies



**New Hard Wheat Varieties characterizd with high productivity, Disease resistance (septoriose) and drought tolerance. INRA. Tunisia)**

# Example of some new technologies



**New Faba bean Varieties adapted to the local conditions**

# Example of some new technologies

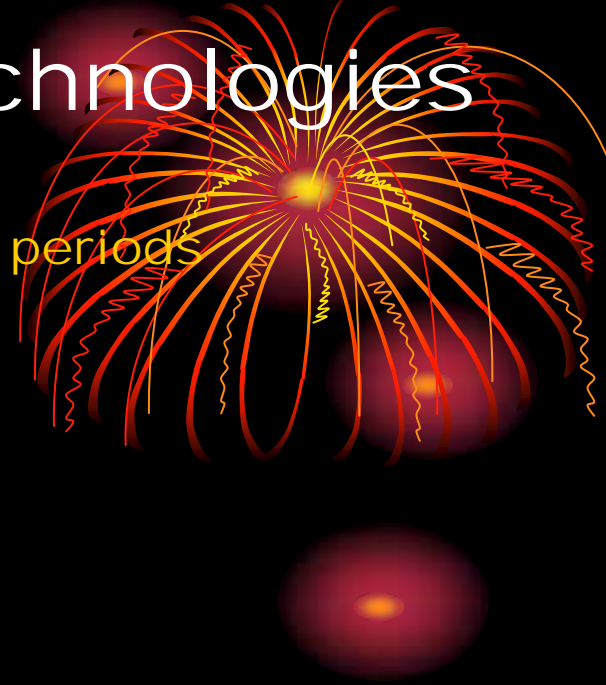
Ruminant feeding system during drought periods  
based on local resources



Multi nutritional blocks



Pellets based on marine plants



# Improvement of local breeds



# Impact and conclusions



- National research programs engendered new technologies adapted to the country's climatic conditions;
- The transfer and application at the farm level, with farmers' participatory approach taking into account the farmer's opinion will necessarily contribute to an improvement of farmers' income, an increase in employment and in the standard of living as well.

# Impact and conclusions



- This participatory approach aims to agriculture upgrading through the development of sustainable and competitive farming systems.
- Future african cooperation through FARA

# Conclusions



- Future African Cooperation: More develop the relationship with sub regional organisations, particularly with NoA regions, through to create more networks based on the exchange of informations and technologies transferred and applied at the farm level

# Conclusions



- Create a database about institutions including the applied scientific informations and new technologies, witch must be updated and utilized by researchers, development organizations and farmer associations

# Conclusions



- Create a more linkage between SRO through FARA (ASARECA, CORAF, SADC, AARINENA/NoA)

**Thanks for your Attention**

