

Presentation of agricultural mechanization in Niger

Description of the Country (Niger) and its Agriculture

Republic of Niger is a steppe country, located between Algeria, Benin, Burkina Faso, Chad, Libya, Mali and Nigeria. The capital is Niamey. The inhabitants are Nigeriens. The country is multiethnic and is a land of contact between sub-Saharan Africa and North Africa. Niger is part of the Economic Community of West African States (ECOWAS).

The most important natural resources of Niger are uranium, oil, gold, iron and coal.

The Republic of Niger is a vast landlocked and arid territory. Its population is estimated at 21 480 000 inhabitants and its area is 1 267 000 km².

Climatic zones

Niger presents, from South to North, three climatic zones:

- The Sudanese zone, the most rainy area with more than 800mm of rainfall per year. A region with an agricultural vocation, this zone develops, alongside savannah vegetation, millet, sorghum, maize and peanut crops.
- The Sahelian zone receives from 200 to 500 mm of rainfall per year, this zone is the region of animal husbandry. It gradually gives way to the Saharan zone from which it is separated by the northern limit of crops under rain.
- The Saharan zone, extremely large, covers all the rest of the country. No culture is possible except in the gullies in the center, where gardening is practiced, and in the oases of Kaouar and Djado in the Northeast.

Agriculture

- Agriculture is the main economic activity of the inhabitants of Niger.
- Indeed, more than 3% of Niger's land is cultivated with traditional tools (daba, hoe, hilaire ...). Harnessed culture is poorly practiced.
- The main crops grown are: millet, sorghum, peanut, rice and cowpeas.
- As for vegetable crops, they concern vegetables (cabbage, capsicum, lettuce, onion, tomato), tubers (cassava, potato) and sugar cane.

Information on agricultural mechanization

Mechanized farming is the process of using agricultural machinery to work in agriculture and significantly improve the productivity of agricultural workers. In the beginning, the democratization of agricultural machinery gradually replaced the work done until then, which was generally assisted by the use of animals such as oxen.

The low productivity and declining competitiveness of local rice will naturally push Niger to explore mechanization as a means to meet the challenges.

Nigerien agricultural mechanization is characterized by two different forms of mechanization, namely:

- Manual mechanization: it is dominated by soil preparation tools (rake) and harvesting tools (knife),
- Animal mechanization: dominated by the bovine traction plow for plowing.

History :

Since 1983 Niger has introduced animal traction with local factories manufacturing its equipment;

In 1987: introduction of the pedal threshing machine for the decortication of cereals

In 1990: introduction of tractors in irrigated agriculture; but in 2000 this initiative is totally abandoned because of small areas cultivated and lack of maintenance.

In 2014 the state tried to integrate mechanization without success, because most tractors are used for soil preparation.

Studies have shown that the goal is not achieving the expected results for the following reasons:

- Only plowing is offered as a service,
- Low productivity of tractor plowing operations 50ha / tractor i.e. a quarter of farmers,
- Low access to rainy zones,
- Frequent breakdown of gear,
- Lack of spare parts,
- Lack of qualified personnel for maintenance

Result :

- Niger's agriculture has remained manual for a long time,
- Since independence, rapid progress has been made in the field of agricultural equipment for animal traction.
- Most recently, the country has made a good comeback in terms of motorized agricultural equipment.

Constraints :

- The discontinuity of the measures taken according to the political regimes and the successive governments,
- The low purchasing power of producers,
- The high cost of agricultural inputs and equipment,
- The lack of adapted after-sales services,
- The burden of taxation.

Proposed solutions :

- Capacity building of State structures in charge of research and implementation and monitoring of the national policy of agricultural mechanization,
- The revitalization of the private sector of agricultural machinery through the creation of processing units for agricultural products, and support for the emergence of service providers in agricultural mechanization,
- Tax relief,
- An endowment on the budget for the financing of studies indispensable for the development of agricultural mechanization

Thank you!