

Strategy to increase fertilizer use in Morocco

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Introduction

Fertilization is a key input factor for crop production and accounting for 50% increase in yield and should be considered in the integrated crop-livestock system.

The nutrient management in rainfed system is depending on rainfall distribution in time and space, the improvement of water and nutrient use efficiency is one of the priorities in these regions.

The adoption of appropriate technical practices will contribute to appreciable yield improvement and then to improving standard living in rural areas.

Fertilizer use

The use of fertilizer in Morocco is low :

- 50% of farmers use fertilizers;
- The mean consumption is about 45 kg (N+P₂O₅+K₂O)/ha;
- Excessive application of fertilizers in some areas.
- Few agricultures do soil analyses inspite the subsidies of 50%

Fertilizer use

The annual national consumption of fertilizers covers only 36% of the real need

- 32% Citrus, Sugar crops and vegetables (5% /SAU)
- 43% Cereals (75% de la SAU)
- 20% Other crops

Fertilizer need

Nutrient	Type	F. unit	fertilizer
Nitrogen	Ammonium nitrate (33,5 % N)	517 000	1 543 000
Phosphorus	TSP (45 % P ₂ O ₅)	236 000	523 000
Potassium	Potassium Sulphate (48-50 % K ₂ O)	287 000	574 000
Total in tons		1040 000	2 639 890

SWOT of Fertilizer sector

Strength

- Increasing fertilizer market(PMV)
- Local production of phosphorus fertilizers (OCP)
- Availability of technical choices (NPK, MAP, DAP, ...)
- Generally good quality of fertilizer
- Availability of good quality logistic of storage and transport
- Establishment of a soil fertility map

Weaknesses

- Low use of fertilizer
- Nitrogen and potassium fertilizer are totally imported
- Multitude of stakeholders in the sector;
- Discontinuous supply for some fertilizer formulas;
- inefficiency of human and material resources to provide intensive supervision
- Lack of fertilization standards to regional specificities

Weaknesses

- Lack of structure for tracking fertilization problems (residues, salinity, ...)
- Limited use of soil analysis by farmers;
- inefficiency of resources allocated to research in the fertilizer industry;
- weak coordination between different research institutions
- Lack of dialogue between the profession and research;
- Lack of regulation of the sector

Opportunities

- A promising and motivating agricultural policy with the launch of the national strategy of the Green Morocco Plan
- There is a strong demand
- FTA

Threats

- Market price fluctuations;
- Sector regulation creating an environment of unfair competition
- Oligopoly of suppliers with few players;
- The instability of raw material in the international market and the strong correlation between fertilizer and agricultural products prices

Actions taken to raise awareness of fertilizer **USE**

- Organization of training sessions on the importance of soil analyses, for technician and farmers
- Follow up with farmers that uses soil analyses for fertilizer recommendation
- Establishment of research and research-development programs on soil test calibration to develop interpretation norms and new or adapted fertilizer formulation

Actions taken to raise awareness of fertilizer use

- As part of efforts to upgrade Moroccan agricultural INRA, OCP Group and the Ministry of Agriculture agreed to collaborate to develop a program which includes:
 - Soil fertility maps at the national level
 - Soil Fertility evaluation
 - Establishment of interpretation norm for different crops
- The results of this program will constitute an important tool for the rational use of fertilizers

Objectives of the program

- Constitution of national data base on soil resources
- Development of a fertilization strategy at regional and national level
- Develop and recommend average fertilizer formulas at regional level,
- Develop tools for advice and guidance of farmers in fertilizer use.
- Contribution to preserving and safeguarding the environment.

STRATEGIC GUIDELINES FOR THE DEVELOPMENT OF FERTILIZER USE IN MOROCCO

Guidelines for market supply

- Ensure availability of fertilizers in a timely manner. As such, it is recommended to consider a safety stock
- Support the emergence of professional traders for distribution of fertilizers.
- Improve access of farmers to finance for the acquisition of fertilizer.
- implementation of pricing mechanism for fertilizers.
- Promote the development of fertilizer markets

Guidelines for the rational use of fertilizers

- Awareness to the adoption of a "Technical Package" (including improved seeds, the fight against weeds, plant protection and cultivation techniques appropriate, in line with the water control);
- Development of regional fertilizer formulas according to soil and climatic conditions;
- Demonstration plate forms at a large scale;
- Experimental and extension activities to define and promote rational use of fertilizers by farmers;
- Revised criteria for soil analyses subsidies to further encourage the use of it

Guidelines for the harmonization of regulations and Strengthening the control

- Setting standards of tolerance in the nutrients content of fertilizer
- The harmonization of analytical methods
- Strengthening the quality control of distributed fertilizers

Guidelines for technology transfer

- Encourage research and research development in this sector through the allocation of human and financial resources,
- Establish a national network of research and research development in the field fertilizer use efficiency and a system of dialogue between the industry and research.
- Encourage fertilizer companies to become involved in the development of regional fertilizer
- Establishment of an effective extension system in fertilizer use (Ferti-Council).

Guidelines of partnership Ministry/ Profession

- The establishment of a chart for tripartite partnership (OCP / Profession / MAPM) to empower operators on the importance of the regularity of fertilizer supply throughout the country.
- The organization of the private sector. Need to revise the regulating law of fertilizer private sector

Thank you for your attention

