



SUPPORTING THE AGRIBUSINESS SECTOR IN AKKAR

COMPONENT 1 OF THE PSD PROGRAMME

FUNDED BY THE EUROPEAN UNION & IMPLEMENTED BY EXPERTISE FRANCE

ADOPTING A NEW CULTIVATION TECHNIQUE FOR VEGETABLES: SOILLESS CULTIVATION



CHALLENGES FACED BY VEGETABLES GROWERS IN AKKAR

- Lack of soil fertility of many lands due to improper agricultural practices and the excessive use of chemical fertilizers
- High percentage of infected soil by soil parasites (Orobanche, nematodes, soil borne diseases) often due to the lack of rotation and lack of diversification
- Many lands are suitable for vegetable production but lack fertile soil
- High cost of production
- Competition between local and imported products

DEMO PLOTS OF SOILLESS CULTIVATION ADVANTAGES



- Visible results to better convince farmers to adopt new techniques
- Improving the skills of farmers through participation in the implementation process
- Introducing new cultivation techniques to improve productivity
- Reduced usage of water and mineral fertilizers through an appropriate fertigation unit and using a good fertigation program
- New and innovative technique resulting in high productivity
- Higher profitability of land space
- Elimination of certain practices such as plowing and weeding
- Improving the quality of products
- Reducing environmental impacts due to lower water consumption and fertilizer requirements
- Improving of yield precocity

ACTIVITIES



Set-up of 4 Demo plots in Sahel Akkar

The precocity in production, lower cost of production, and the production of vegetables with a lower level of residues become necessities to vegetable growers to compete in the market and obtain higher income. These can be reached if the farmer adopts new techniques such as soilless cultivation. It is worth noting that the farmers hesitate at applying new practices and need incentives to adopt new techniques. Hence, 4 Demo plots have been implemented through the PSD project in Sahel Akkar on 4 types of vegetables: tomato, eggplant, pepper and cucumber.

During the first season, the farmers participated in the implementation process and were trained on how to apply plant nutrients based on fertigation schemes and to control irrigation rate. In the second season, the farmers were requested to apply the fertigation schemes and irrigation according to their cultivation under Mada's supervision, while in the third season the farmers were able to apply the fertigation and irrigation independently.

CHALLENGES



- High initial investment cost
- Need for trained staff
- Need for agricultural infrastructure (i.e. electricity and good water quality)

ADOPTING A NEW CULTIVATION TECHNIQUE FOR VEGETABLES: SOILLESS CULTIVATION



RESULTS



- Establishment of 4 Demo plots
- 4 water samples taken and analyzed
- 4 fertigation schemes defined
- Yield in the soilless demo-plot was 37% higher than in a conventional greenhouse
- Despite that the operational cost of a soilless demo-plot was 22% more than a conventional one
- Development of the seedlings and the vigorousness of the plants was stronger when compared to those planted conventionally
- 112 farmers attended 5 theoretical trainings on soilless cultivation
- 149 farmers attended 11 practical trainings on several topics in the Demo plots

