

- Enhanced crop-livestock integration in CA through optimized stubble grazing strategies and increased fodder availability from forages or fodder shrubs.



- Site-specific conservation agriculture technology packages fine-tuned and disseminated for enhanced farm productivity, resource use efficiency and profitability.

2- Knowledge management and dissemination of the CLCA in WANA region.

- 2.1. Capacity development, co-learning, knowledge and information dissemination in the target areas and across the CWANA region.

Tunisian Research Team

Name	Specialty	Institution
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Hatem Cheikh M'hamed	Agronomy	INRAT
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INRAT : Institut National de la Recherche Agronomique de Tunisie.
INGC : Institut National des Grandes Cultures - INAT : Institut National Agronomique de Tunisie
CRDA : Commissariat Régional de Développement Agricole - ESA : Ecole Supérieure d'Agriculture

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CLCA PROJECT



Integrated Crops-Livestock Conservation Agriculture for Sustainable Intensification of Cereal-based Systems in North Africa and Central Asia (2013 - 2016)



Rationale

In Central and West Asia and North Africa regions (CWANA), the continuous land degradation and the increase of water scarcity are the main causes of low and vulnerable agricultural production. Conservation Agriculture (CA) built on no-till, permanent soil cover and on crop diversification is being considered as one of suitable alternatives to alleviate those negative impacts. CA practices potentially help farmers to harvest more or at least the same crop yield but at less cost through efficient utilization of resources, with a long-term improvement in profitability and a reduction in poverty.

In semi-arid area of CWANA regions, small ruminant are closely associated to cereal-based systems with conventional practices and rural livelihoods are mostly based on both system components. The livestock component should be taken into consideration when converting to CA and the ways to integrate small ruminants to the cropping system under CA should be investigated.



Overall objectives

CLCA project aims to enhance sustainability of natural resources use, increase farm profitability, and improve livelihoods of resource-poor farmers through large scale adoption of Conservation Agriculture technologies capitalizing on the system synergies between crops, livestock and soils in the drylands of CWANA.

Beneficiary Countries

Algeria (M'sila governorate), Tunisia (Siliana governorate) and Tajikistan

Targeted groups and Innovation Platform

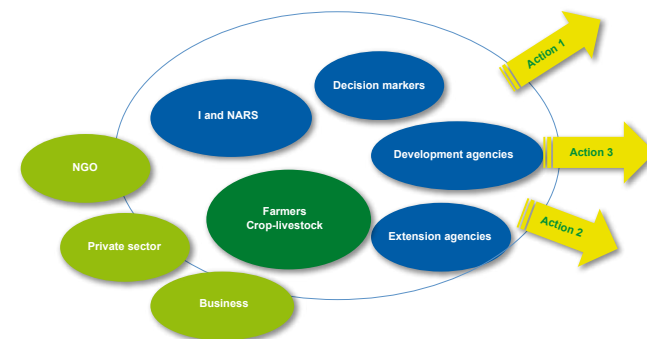
Farmers

At least 1000 households and about 10000 family members including women will benefit from the CLCA activities. Ultimately, other rural communities in similar agro-ecologies across CWANA will benefit from the improved options identified and promoted by CLCA project.

NARS (Research & Development) and policy makers

NARS will have access to new and innovative information which will be adopted and disseminated.

Innovation platform



Targeted area in Tunisia

The targeted area is represented by Siliana governorate, a Tunisian semi-arid area where crops - livestock systems predominate, with 400 mm of annual rainfall.

- The main characteristics include low soil fertility, soil degradation, accentuated topography, inappropriate agricultural practices (ploughing down slopes) and small-sized fields.
- Farmers have some background with CA (i.e. Chouarnia, Laroussa, El Krib,...)



In addition to on-farm trials implemented at Chouarnia and Laroussa, selected research activities will be carried out at on-station level in Bourbia (INRAT experimental unit, Zaghouan governorate).

Project components

1- Understanding and responding to the trade-offs, constraints and opportunities for the adoption of the crop-livestock CA systems in project areas of CWANA.

- Ex-ante evaluation for CA based technologies in CWANA.

