



# **KOICA Project for the Restoration of Cork oak Forests in Tunisia**

**13th June, 2018**

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Suppro Co., Ltd, KOREA**

# Project Overview

❖ **Project objective:** Restoration of ecosystem by cork oak forest restoration

❖ **Project site location:** Ain Draham & Fernana (Jendouba Governorate), Tunisia

❖ **Project Period:** January 2015 ~ December 2018 (4 years)

❖ **Budget:** USD 2 million (Grant) \_ Korean government's overseas aid program fund

❖ **Project Execution Agency:** KOICA (Korea), INRGREF (Tunisia)

❖ **Project Performer:** Suppro Co., Ltd., Seoul, KOREA

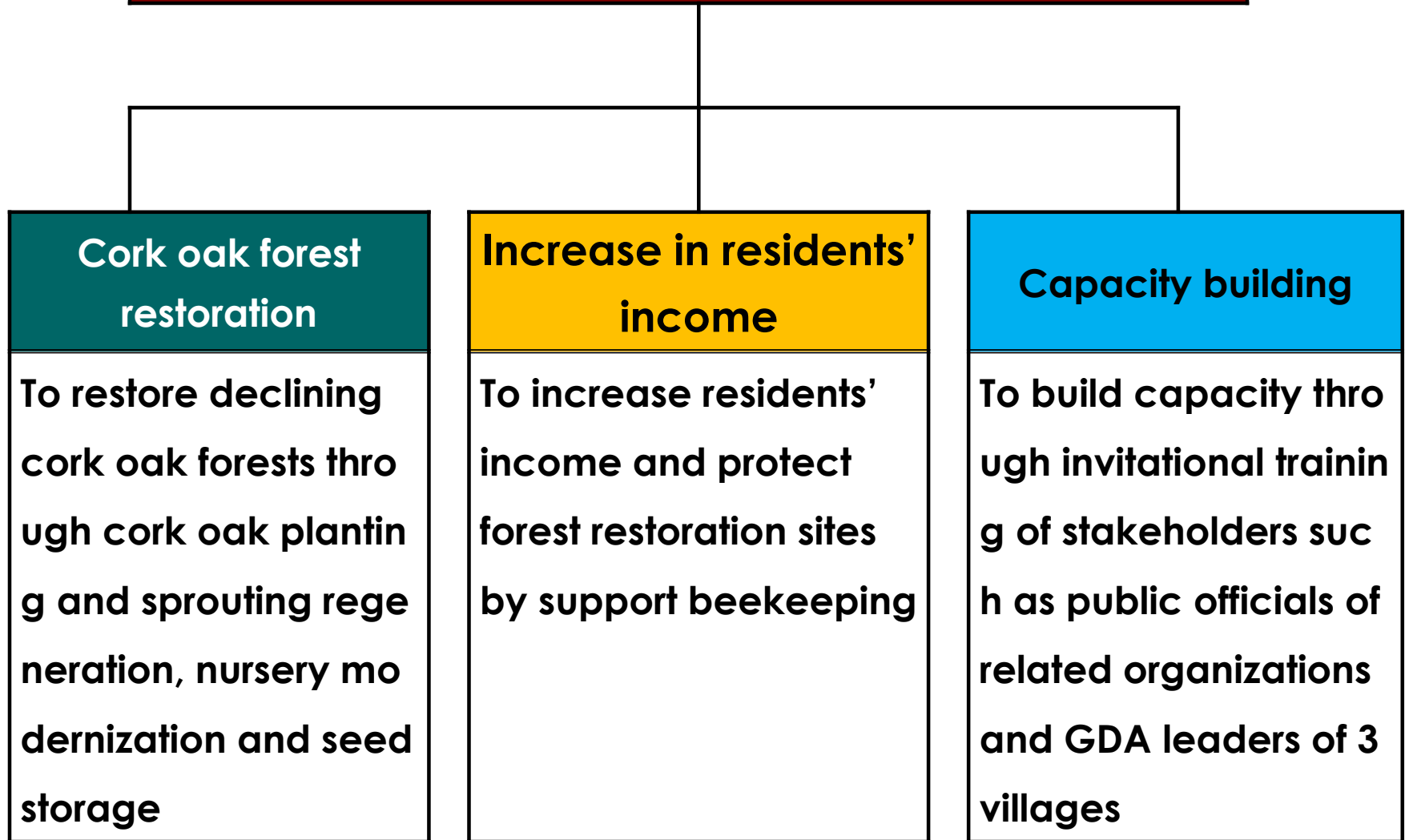
# Project Overview

## ❖ Main project contents

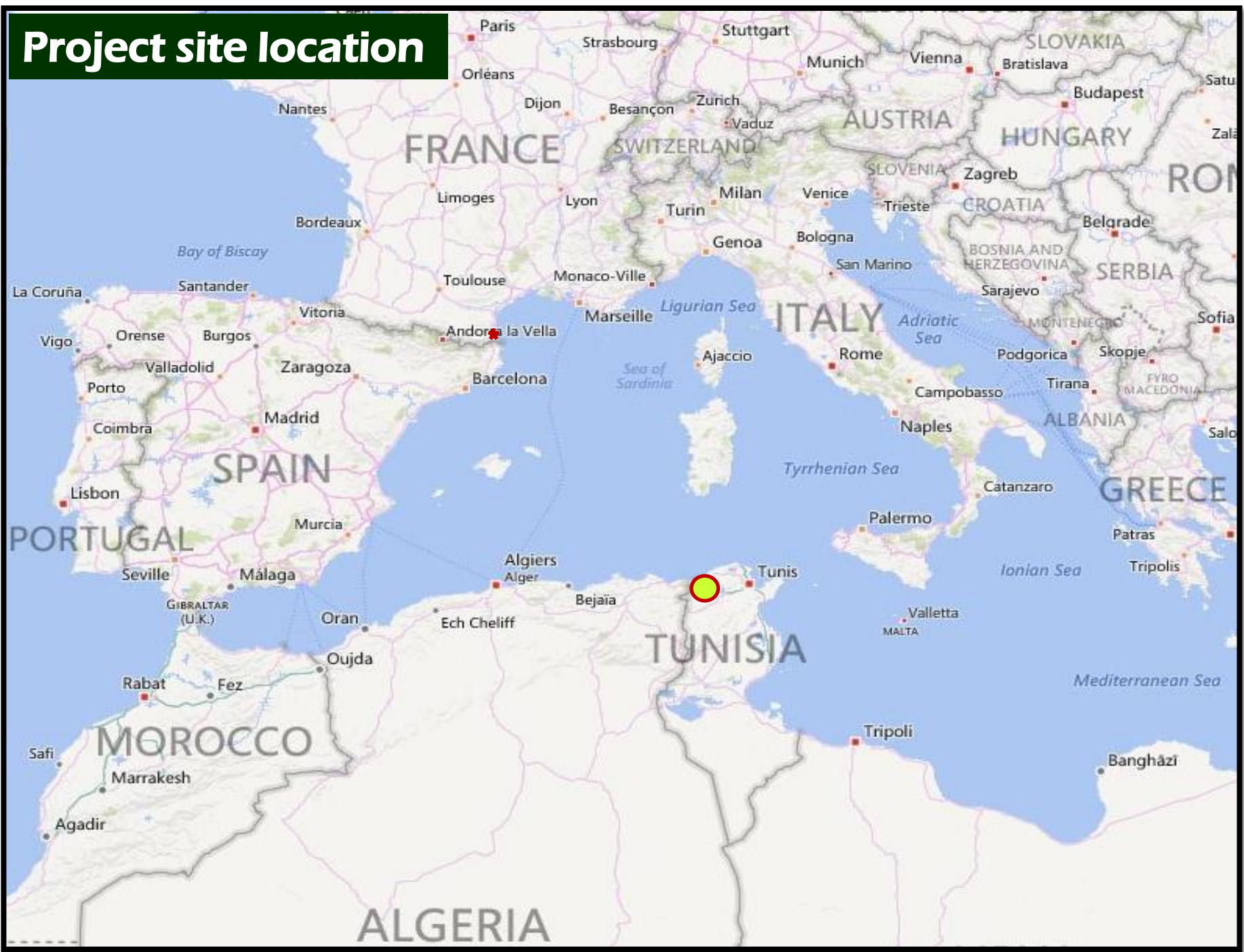
- Restoration of cork oak forests: planting (100ha), sprouting regeneration (10ha)
- Nursery Modernization
- Seed storage installation
- Residents' income project: Beekeeping promotion, 'Community Center' Building
- Equipment support: for forest restoration, beekeeping and office (PC, etc.)/ vehicles (4WD)
- Invitational training in Korea: 5 courses (34 persons/ for 2 weeks)
- Staff accommodation remodeling

# Basic Direction of project

## Tunisian cork oak forest restoration pilot project



# Project site location

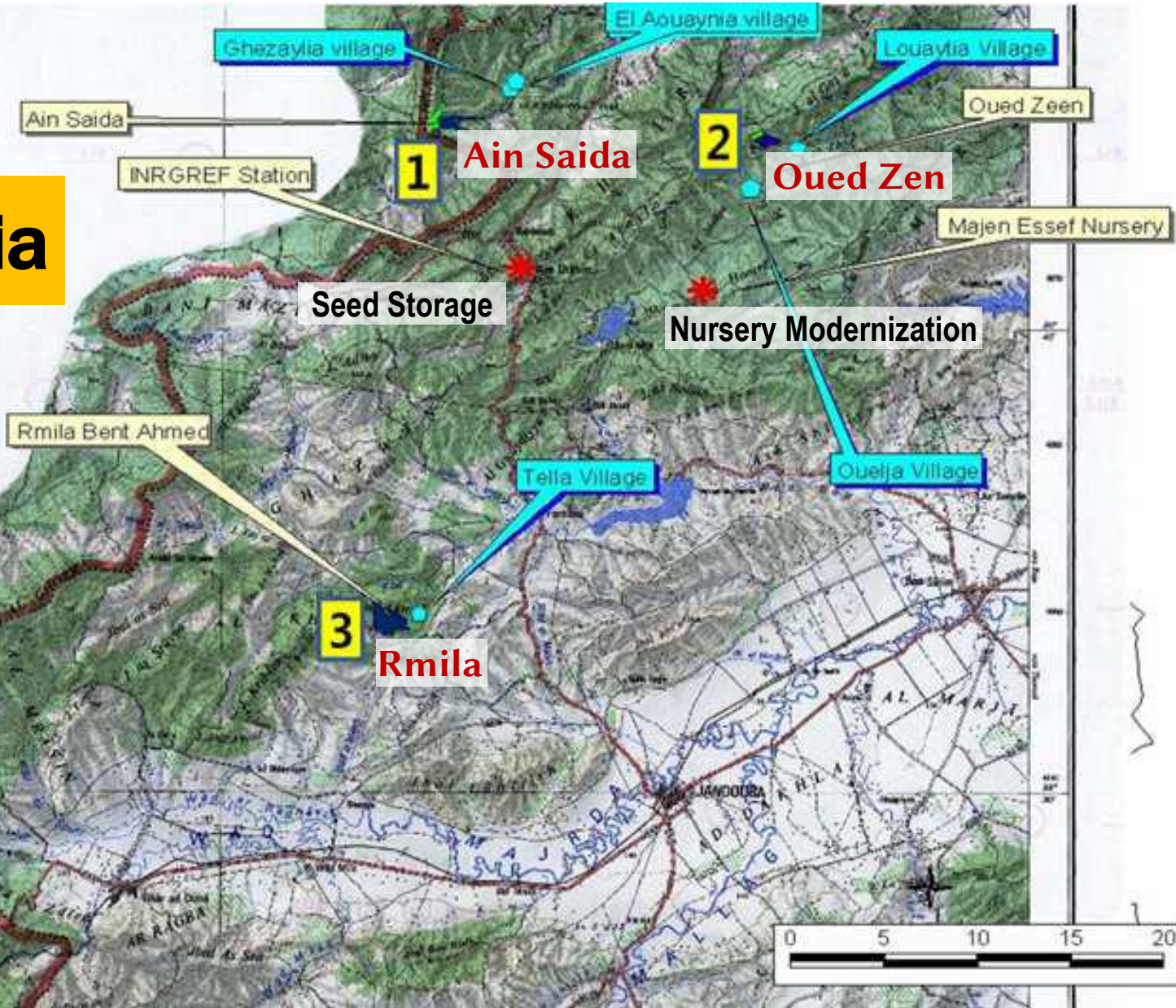


# Project site location\_ Jendouba Governorate, Tunisia



# Project site location\_ Jendouba Governorate (Ain Draham & Fernana)

**Algeria**



# Restoration Project by Region \_ Scale / GDA in charge of site

	Forest Service	Forest sector	Total area	Planting (ha)	sprouting regeneration (ha)
1	Ain Draham	Ain Saida	45	30 + 5	10
2	Ain Draham	Oued Zen	35	30 + 5	-
3	Fernana	Rmila	30	25 + 5	-
계	110 ha			100	10

✂ Density per ha: 1,660 trees(3×2m) / + 5 : 2,500 trees(2×2m)

## 🏠 GDA in charge of site

Restoration site	Total area	restoration methods	GDA
Ain saida	45	Planting + sprouting regeneration	Ain saida
Oued zen	35	planting	Oued zen
Rmila	30	planting	Tella



# Cork oak forest restoration

## Restoration work promotion structure

- ❖ **Designate the executing entity as the GDA of the nearby village**
  - Participation of residents in forest restoration project (planting, management, protection of project site)
  - Residents' income project support: **Beekeeping**
- ❖ **Expected effectiveness**
  - Encourage preservation for forest
    - ➔ **Inhabitants' cooperation in prohibiting grazing and taking firewood in the project site, and taking care of forest fire**
  - Contributing to the development of the household and local economy by participation in restoration projects and income project
- ❖ **Responsibility of the implementation, supervision, and supervision about GDA's implementation: **Officials of CRDA Jendouba****

## Cork oak forest restoration \_ Signed a contract

- **Place:** CRDA Jendouba Meeting Room (Oct. 10, 2016)
- **Participants:** <Korea> Ambassador of Tunisia, etc.  
<Tunisia> Deputy Minister of Agriculture, etc.
- **Contracting parties:** Between PMC (Suppro Co., Ltd.) - 3 GDAs



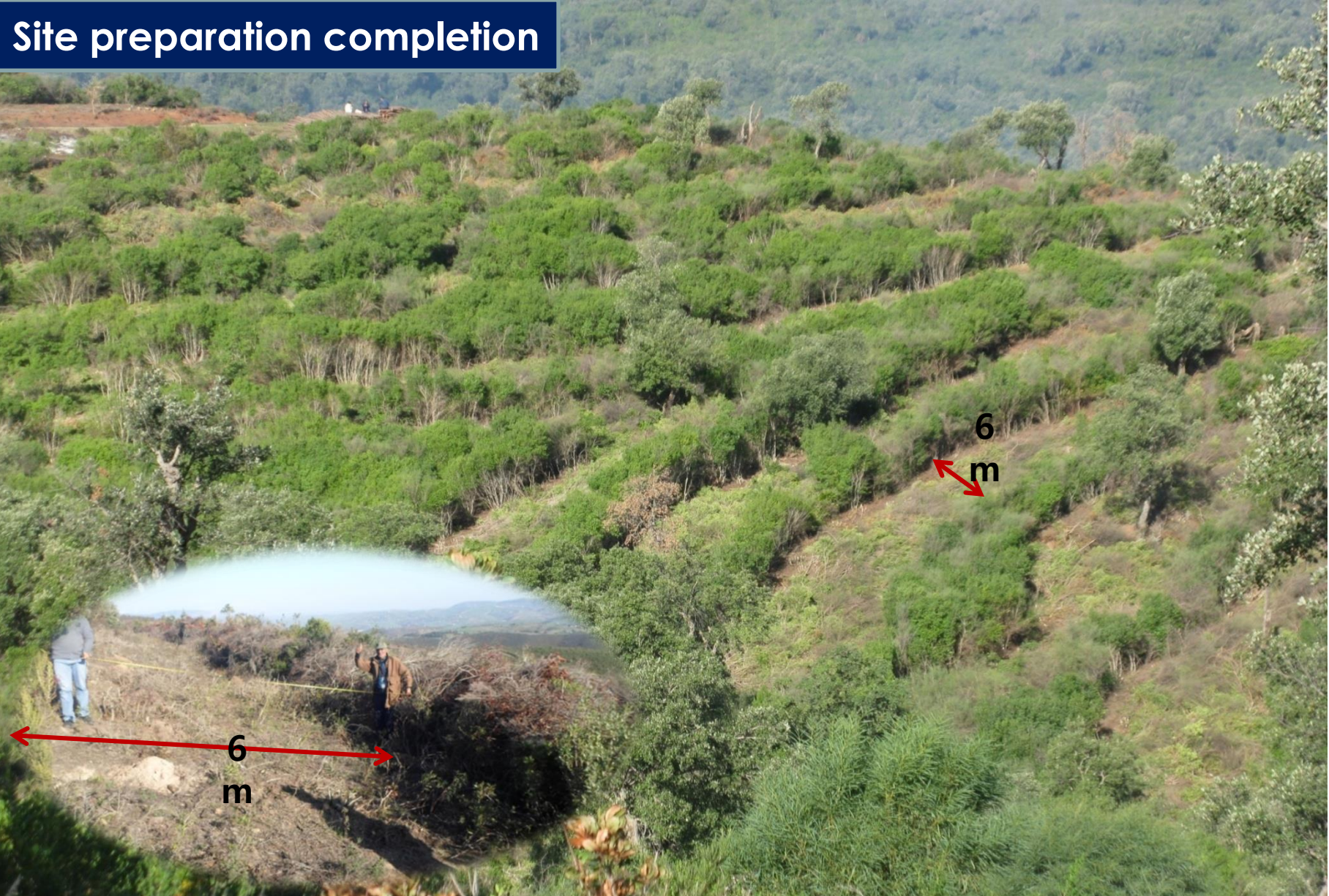
# Cork oak forest restoration **\_ as Planting**

## Site Preparation



# Cork oak forest restoration \_ as Planting

Site preparation completion



# Cork oak forest restoration **\_ as Planting**

## Execution of the planting restoration work



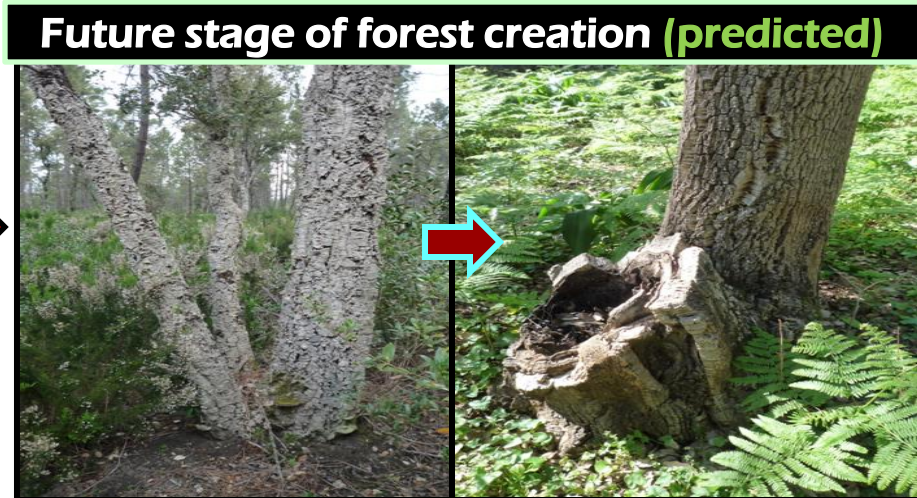
Transporting seedlings for planting



In front of the signboard at the site entrance

# Cork oak forest restoration \_ as Sprouting

- ◆ **Location:** Ain Saida region (near the Algeria border), where there have already been two previous fires (1994, 2000)
- ◆ **Background of sprouting regeneration**
  - When forest fires broke out, logging was performed only on serious fire trees for sprouting regeneration
  - This time, it was conducted on rotting trees among the trees left due to the low damage
- **Execution of sprouting regeneration:** about 200 trees (within 10 ha)  
The date of the logging for sprouting regenerations: March 2017
- **Current Situation (April 2018):** Beginning sprouting one year after logging, height of sprouting 50cm



# Cork oak forest restoration \_ Project site inspection



# Project site protection

- 1. Installation of barbed-wire fence :** <Purpose> To prevent wild animals (wild boars, elk, etc.) from eating, to prevent access to grazing livestock and firewood extraction
  - ✘ **(Problem)** The opening of the fence for their own convenience
    - ☞ They have no concept of **what the fence is for** and **why it should be managed**
- 2. Protection guards employment: 3 persons**





# Project site protection

Digging for fence installation



Inspecting of construction status



Guards' little cottage




# Cork oak forest restoration \_ Progress and Problems

## Low survival ratio

	Survival ratio (%)		Reason for suspension of investigation
	July 2017	April 2018	
Ain Saida	10~80	Stop the investigation	Find out where planting wasn't carried out (2 times)
Oued Zen	40~50	"	Find out where planting wasn't carried out (1 time, supplementary planning)
Rmila	80	90	—

### ❖ Causes:

- GDA's poor irrigation  Officials didn't implemented to provide instruction and supervision
- Planting of **poor quality seedlings**

 Tunisian argues that: "We implemented enough watering (20 Liter / tree), but due to abnormal high temperature in summer 2017" ???

❖ **Action:** Perform supplementary planting (Nov. 2017-April. 2018)

⊗ **Target survival ratio: 70%**  **1,166 trees / ha**

A photograph of a cork oak forest. The trees have thick, textured bark and dense green foliage. A semi-transparent green rectangular box is centered over the image, containing the text "Thank you for your attention" in a bold, yellow, sans-serif font.

**Thank you  
for your attention**