

## FAVOUR EXISTING GENOTYPES

### OBJECTIVE

Favour existing genotypes that are better adapted to future conditions.

### DESCRIPTION

Some genotypes may be better adapted to future conditions or changing conditions because of pest resistance, broad physiological tolerances, short regeneration times, or other characteristics.

Examples: planting stock from seeds collected from local trees that exhibit drought tolerance, pest resistance, or other desirable qualities; planting stock from seeds collected from healthy trees in warmer or drier locations in the region; retaining some survivors of a die-back event, such as drought-induced mortality or pathogenic blight, rather than salvage harvesting all trees in an affected area; creating and monitoring areas of natural regeneration in order to identify and promote well-adapted phenotypes; planting disease-resistant chestnuts in order to re-establish a form of this species on the landscape.

### EXPECTED RESULTS

Identify and manage the genotypes that have adapted best during various life stages, allowing a population to persist where it may otherwise fail.

### RESULT INDICATORS

Number of genotypes adapted to future conditions.

### INVOLVED ACTORS

Public, private, non-government land managers, natural experts, communities, farmers.

### EXPECTED TIMELINE FOR ACTION

- Long term (> 10 years)

### BEST PRACTICES

- Mediterranean Basin
- Iberian Peninsula
- USA
- North America & British Columbia
- Ireland & Greater Antillean – Jamaica
- Australia

### CRITICALITIES

Genotypes from other sites could interfere with the adaptation of local populations, if the imported resources are not adapted to withstand local pressures; availability of source material may also limit the

use of this approach.

## SCOPE OF THE ACTION

- Adaptation

## TYPE OF PROPOSED ACTIONS

- Green
- Soft

## SECTOR OF ACTION

- Agriculture / Forests / Land use
- Biodiversity / Conservation of ecosystems
- Other

## CLIMATE IMPACTS

- Change or loss of biodiversity
- Drought
- Extreme precipitation
- Extreme temperatures
- Fires
- Floods
- Salinization and acidification of water
- Strong winds
- Other

## IMPLEMENTATION SCALE

- Region / Country

## SOURCE

<https://adaptationworkbook.org/niacs-strategies/forest#strategy-210>