

## MANAGE FOR SPECIES AND GENOTYPES WITH WIDE MOISTURE AND TEMPERATURE TOLERANCES

### OBJECTIVE

Favour current species that have wide ecological amplitude and can persist under a wide variety of climate and site conditions.

### DESCRIPTION

Managing a variety of species and genotypes with a wide range of moisture and temperature tolerances can better allocate risks, rather than attempting to select species with a narrow range of tolerances that are best adapted to a specific set of future climate conditions.

Examples: planting or otherwise promoting species that have a large geographic range, occupy a diversity of site conditions, and are projected to have increases in suitable habitat and productivity; promoting long-lived conifers with wide ecological tolerances; identifying and promoting species that currently occupy a variety of site conditions and landscape positions.

### EXPECTED RESULTS

Maintenance of the overall ecosystem function and health by gradually enabling and assisting adaptive transitions of species and communities in suitable locations.

### RESULT INDICATORS

Humidity [ $\text{kg}/\text{m}^3$ ] or [ $\text{g}/\text{m}^3$ ]

Temperature [ $^{\circ}\text{C}$ ]

Number of species humidity tolerant

Number of species temperature tolerant

Number of genotypes humidity tolerant

Number of genotypes temperature tolerant

### INVOLVED ACTORS

Scientist, natural manager, farmer, government.

### EXPECTED TIMELINE FOR ACTION

- Medium term (5-10 years)
- Long term (> 10 years)

### BEST PRACTICES

- USA
- Australia
- California

## CRITICALITIES

Impact of climate change: increase of temperature and humidity.

## SCOPE OF THE ACTION

- Adaptation

## TYPE OF PROPOSED ACTIONS

- Green

## SECTOR OF ACTION

- Agriculture / Forests / Land use
- Aquaculture / Fishing
- Biodiversity / Conservation of ecosystems
- Public health
- Water resource management
- Other

## CLIMATE IMPACTS

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

## IMPLEMENTATION SCALE

- Region / Country

## SOURCE

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