MAINTAIN OR IMPROVE THE ABILITY OF FORESTS TO RESIST TO PESTS AND PATHOGENS

OBJECTIVE

Preserve the health of the forest.

DESCRIPTION

Even modest changes in climate may cause substantial increases in the distribution and abundance of many forest insects and pathogens. These impacts may be exacerbated where site conditions, climate, other stressors, and interactions among these factors increase the vulnerability of forests to these agents. Actions to manipulate the density, structure, or species composition of forests may reduce the susceptibility of forests to some pests and pathogens. One example of an adaptation tactic under this approach is to discourage infestation of certain insect pests by reducing the density of a host species and increasing the vigour of the remaining trees. Another example is to maintain an appropriate rotation length to decrease the period that a stand is vulnerable to insect pests and pathogens, recognizing that species are uniquely susceptible to pests and pathogens at various ages and stocking levels. Existing management tactics can also be used to reduce the susceptibility of forests to insects and diseases that may be exacerbated by climate change.

EXPECTED RESULTS

Forests less susceptible to changes introduced by pathogens and pests.

RESULT INDICATORS

Number of autochthon species preserved

INVOLVED ACTORS

Forest responsible, government, ecologist, natural scientist.

EXPECTED TIMELINE FOR ACTION

- Medium term (5-10 years)

BEST PRACTICES

- Green mountains – Vermont – USA
- Massachusets – USA
- Minnesota – USA

CRITICALITIES

It is uncertain whether this approach reduces forests' long-term vulnerability to climate change. Forest sites are often limited because of accessibility, aesthetic concerns, topographic limitations, and other factors.

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
- Other

IMPLEMENTATION SCALE

- Association of municipalities
- Province
- Region / Country

SOURCE

https://www.nrs.fs.fed.us/