

PREPARATION FOR MORE FREQUENT AND MORE SEVERE DISTURBANCES

OBJECTIVE

Respond to disturbance.

DESCRIPTION

Documenting clear plans for how to respond to more frequent or severe disturbances in advance will allow for a faster, more thoughtful, better-coordinated response.

An example of an adaptation action under this approach is to identify locations where a given forest type would be unlikely to be successfully re-established in the event of a severe disturbance, and then devising response options for establishing better-adapted communities in these places if the event occurs again. Considerations: stand-replacing disturbances are often beneficial to aspen and paper birch forest types; the dominant species in balsam fir and spruce forest types have flammable needles and shallow roots, which make them highly susceptible to damage or mortality from fire and wind; jack pine forests require extensive site disturbance to regenerate and are generally favoured by stand-replacing disturbances and recurring fires.

EXPECTED RESULTS

Planning and studying the primary drivers of disturbance.

RESULT INDICATORS

Frequency and intensity of disturbance events (i.e. drought, dry wet soil and peatlands, wildfire, invasive species, and severe weather events).

INVOLVED ACTORS

Scientist, natural planner, natural risk expert, government and public administration.

EXPECTED TIMELINE FOR ACTION

- Long term (> 10 years)

BEST PRACTICES

- Alaska
- USA
- Canada, USA and Mediterranean area

CRITICALITIES

Climate change impacts like drought, dry wet soil and peatlands, wildfire, invasive species, and severe weather events.

SCOPE OF THE ACTION

- Adaptation

TYPE OF PROPOSED ACTIONS

- Green
- Soft

SECTOR OF ACTION

- Agriculture / Forests / Land use
- Aquaculture / Fishing
- Biodiversity / Conservation of ecosystems
- Public health
- Tourism and leisure
- Urban settlement
- Water resource management
- Other

CLIMATE IMPACTS

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

IMPLEMENTATION SCALE

- Association of municipalities
- Municipality
- Province
- Region / Country

SOURCE

https://www.nrs.fs.fed.us/pubs/gtr/gtr-nrs-87chapters/butler_chap-2-gtr_nrs87.pdf