

# CLIMATE CHANGE REFUGIA

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Climate changes affect the environment and its various components immensely. It affects the dispersal, adequacy and perseverance of various species and ecosystems across the world. To protect the species and ecosystems from getting affected by the changing climate, certain strategies are required. The strategies include – transition, adaptive and defiance strategies. Transition strategies have their pivot on allowing inescapable changes to the ecosystem or species while sustaining the functionality of the ecosystem. Adaptive or resilience strategies, on the other hand, focus on making the ecosystem strong against climate change by providing them with what they need. Defiance strategies seek to preserve the composition, structure and functioning of the ecosystem. Climate change refugia is one of the primary defiance strategies focusing on the identification and perseverance of the ecosystem. Climate change refugia are the areas that remain unaffected by the partial climate changes over time and enable the endurance towards the physical, ecological and socio-cultural resources. An example of this kind of strategy is cold-air pooling, where concentrated cold air flows downslope from valleys or basins, achieving the aim of temperature inversion.

In order to manage the climate, change refugia requires some steps: -

- Defining planning, purpose and objectives.
- Assessing climate impacts and susceptibilities.
- Reviewing the conservation objectives
- Identifying and mapping major refugia features
- Evaluating and prioritizing refugial areas.
- Identifying and implementing the actions required for management.
- Monitoring the effectiveness of refugia.

Although climate change refugia is a good strategy, it has its own flaws too. It can be time and money consuming and might not be that effective in achieving its sole purpose. Concluding it, a single strategy is not enough but a mixture of them is required to meet the actual aim of preservation towards climatic changes.

**FUN  
FACT**

If current rates of warming continue, by 2030 global temperatures could increase by more than 1.5 °C (2.7 °F) compared to before the industrial revolution. A major impact of climate change on biodiversity is the increase in the intensity and frequency of fires, storms or periods of drought

