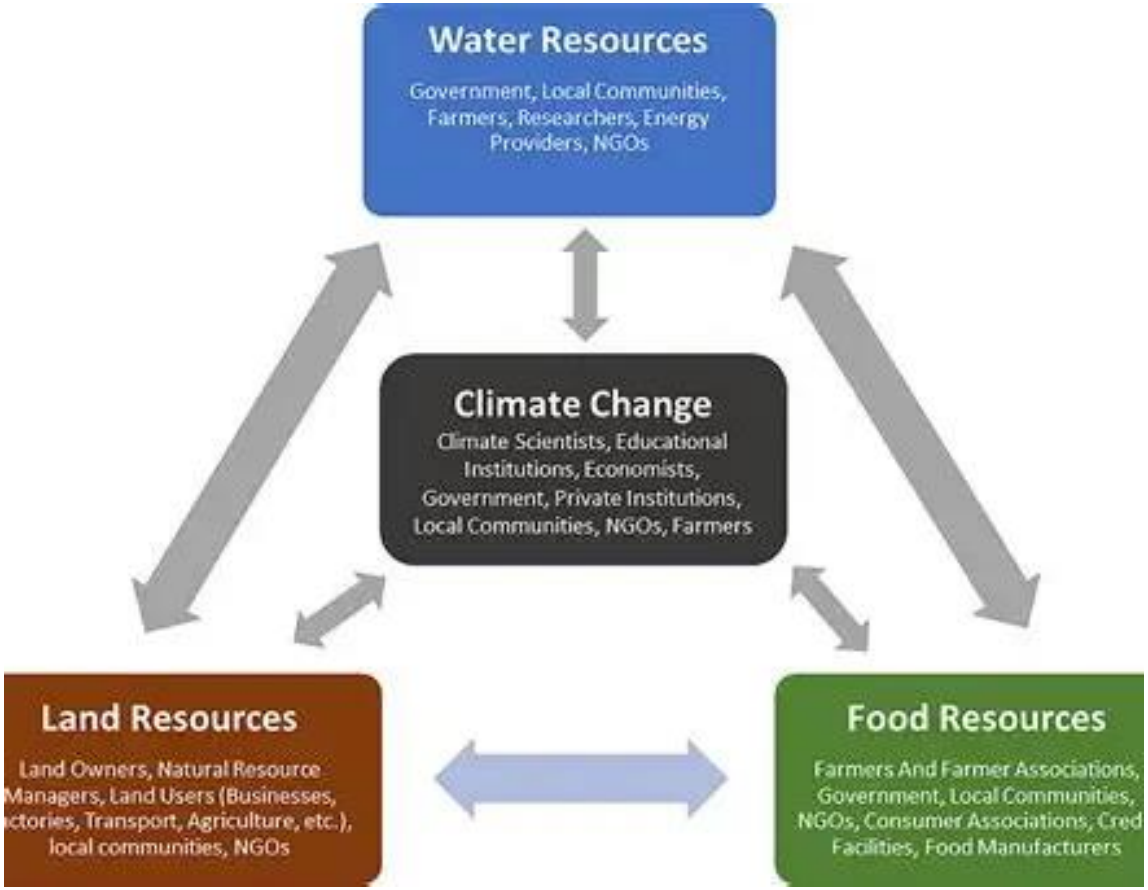
Tipping points and impact

Changing climate



Tipping points—the point of no return

- Permafrost melting
- Amazon rain forest decreasing
- Ice caps melting
- Coral reefs dying
- AMOC collapse—loses heat>saltier/denser
- Ocean acidification> less calcium carbonate more bicarbonate
- Ocean heating> deoxygenation
- Stronger storms and hurricanes
- Rising sea levels
- Altered migration patterns

Consequences--impacts

- Sea level rise
- Mass migration
- Shifting ecosystems
- More powerful storms
- Reduced tree cover increases heat island effect
- Firmageddon
- Anoxic areas in water bodies
- Algal blooms
- Oxygen depletion
- Erosion and sedimentation affect riparian zones
- Wetlands, barrier reefs disarticulated
- Estuaries/nurseries disrupted
- Food webs disrupted
- Brackish water
- Hyper salinization/changed saline gradient/acidity
- Turbidity
- More hot dry days>variability impacts invertebrates, etc.
- More floods and fires

Sing a song of changes to *Coming Around the Mountain*

I'll be inventorying ice pack as we go, (shivering)

Gathering data on the flooding and the snow, (waving water)

And sea levels, drought and heat, (fanning)

Biodiversity and foods we eat, (pointing to mouth)

So, the situation of the Earth I will know. (pointing to head)

Climate enrichment

Climate observation: What evidence of climate change have you observed?

Climate imagination: Can you make a logo, a symbol of climate change?

Yummy climate: One way to reduce methane emissions is to eat vegan; can you be a V-Chef!

Climate reading