Scenario Planning for Climate Resilience

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- Southern Willamette Valley
- Past: timber, farming
  Present: education, services, manufacturing
- Future: ?
Climate Change

Potential climate changes impact

Impacts on...

Health
- Weather-related mortality
- Infectious diseases
- Air-quality respiratory illnesses

Agriculture
- Crop yields
- Irrigation demands

Forest
- Forest composition
  - Geographic range of forest
  - Forest health and productivity

Water resources
- Water supply
- Water quality
- Competition for water

Coastal areas
- Erosion of beaches
- Inundation of coastal lands
- Additional costs to protect coastal communities

Species and natural areas
- Loss of habitat and species
- Cryosphere: diminishing glaciers

Source: United States environmental protection agency (EPA)
Climate Action Plan

-- done

Greenhouse Gas Inventory

-- in progress
Planning for Uncertainty

Past and future CO₂ atmospheric concentrations
Now, how can we include everyone?

- Critical mass = 15-20% of group
  → cultural change

“None of us is as smart as all of us”

Popular slogan from suggestion boxes of 1940s

Innovators 2.5 %  Early Adopters 13.5 %  Early Majority 34 %  Late Majority 34 %  Laggards 16 %

Library of Congress
Scenarios

- Plausible what-if stories
- Fictional but based on data
Scenario planning

1. Identify driving forces
2. Sort critical forces
3. Create plausible scenarios
4. Work backward – strategies
1. Brainstorm and identify driving forces

Categories (STEEP):

- Society
- Technology
- Environment
- Economics
- Politics

= Triple Bottom Line: Environment, Economics, Equity, + political and technology factors
2. Rank the driving forces

- Factors with greatest impact
- Factors with greatest uncertainty
3. Group and cluster the driving forces

- Along a spectrum
- Or opposite ends of axes
4. Create plausible stories about the future

- 4-6 scenarios
- Give them vivid, memorable names
• Write detailed stories
• Describe in as much detail as possible
6. Rehearse the future

- Prepare for instability
- Work towards the future we most desire
7. Select indicators

- Small details – indicators of each scenario
- Prepare for each possible future
Outcomes:

- Resilient master plan
- Whole campus engaged
  - Right people
  - At the right times
- Energized population
- Stakeholder ownership