Session 10
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Community Response to Wildfire Risk in AZ, CO, and NM

Policy Sciences:
I. Professionalism
    a. Policy Sciences Definition:
        i. The work of professionals is to apply special knowledge and skills RESPONSIBLY in resolving societal problems in the common interest.
    b. Challenges as Opportunities:
        i. Tough policy problems present an opportunity to change how problems are perceived.
        ii. One way to solve problems more effectively is to look at them in a more detailed way than most people are used to.
    c. Theories of Policy for Professionals:
        i. Institutional Rational Choice:
            1. (Eleanor Ostrum) Deals with institutional rules/norms/laws that alter rational individual choices
        ii. Multiple Streams
            1. (Kingdon) Three streams come together: politics stream, policy stream, problem stream.
        iii. Punctuated Equilibrium
            1. Incremental change and punctuation
        iv. Advocacy Coalition Framework
            1. How do you bring coalitions of single interests together in specific policy sub-systems to figure out what might work in that context.
        v. Policy Sciences:
            1. Harold Lasswell (1950s) one of the oldest traditions in the policy movement.
II. Policy Sciences
    a. Four over-aching umbrellas:
        i. Problem-oriented
        ii. Contextual:
        iii. Embrace multiple methods: i.e. anthropology, hydrology,
        iv. Emphasis on solving problems for the human dignity for all.
    b. Three frameworks:
        i. Problem orientation
        ii. Decision Process
            1. CAVEAT: The focus of this presentation is on the decision process due to time constraints; however all of these

frameworks are highly embedded and the presentation is thus incomplete.

      iii. Social Process

The Decision Process

  III.   Definition

      a. A heuristic process, non-linear, with the following seven functions ongoing concurrently:

        i. Intelligence – obtaining and processing information

        ii. Promotion – recommending/mobilizing support for action

        iii. Prescription – an activity that establishes rules for action

        iv. Invocation – the first action to invoke, or appeal to a prescription

        v. Application – the final expression of the prescription

        vi. Appraisal – Evaluation of the prescription

        vii. Termination – The point at which the prescription is no longer in effect.

      b. Implementation:

        i. In other policy frameworks, Invocation and Application are combined under the heading "Implementation."

        ii. In Policy Sciences, Invocation and Application are separated out because changes can take place between these points of the decision process.

Concept of the Common Interest

  IV.   Common Interest

      a. Interests widely shared by members of a community

      b. A special interest in incompatible with the common interest

      c. A tentative commitment to the common interest (or some alternative goal) is necessary to provide direction for policies and governance.

  V.   Problems with Governance (from Robert Brunner reading):

      a. What is the problem with governance according to Brunner?

        i. Failure to clarify and secure the common interest

        ii. Why do we have failure to clarify and secure the common interest today?

          1. Multiple competing interest groups

          2. Separation of powers does not allow opportunity for common interest to be resolved

            a. Entrenched model of conflict embedded in the Constitution

          3. Different bureaucracies create competing policies.

          4. Move to ideologies: creating an adversarial approach

          5. Dialogue about the common interest has atrophied

        iii. What is the goal with respect to governance?

          1. Develop a formal system for conflict resolution.

            a. It should start with collaborative problem-solving in community initiatives

2. Principles of Affected Interest:
    a. Example: The mythology of democracy (in the U.S.A.) that everyone can participate at every moment.
    b. Criteria of economy and competence
        i. People self-select into participating in governance.
            1. Time
            2. Competence
3. How can we find a place to reinvent ourselves?
    a. One way: community-based initiatives.
        i. They have the ability to serve a common interest
        ii. It is not something that is meant to work in all situations
            1. Requires some balance of power and a reasonable pre-disposition of all the important people to come to the table.
        iii. It is particularly useful in the context of natural resources.
        iv. Local Control vs. Local Involvement
            1. Local stakeholder groups do not necessarily mean that there is local control.

Wildfire Problem
VI. 2000 and 2002 Wildfire Seasons
    a. Most costly in the last 50 years (in terms of acres destroyed)
    b. 2000 Suppression costs: $1.3 Billion
    c. 2002 Suppression costs: $1.6 Billion
    d. 2003 Suppression costs: $1.3 Billion (CA Fires)
VII. Fire Regimes
    a. Fire plays a natural role in ecosystems, especially out west
    b. Ponderosa Pine Forests:
        i. Adapted to low-intensity frequent fires
            1. burns small trees and shrubs,
            2. prevents spread of invasive species,
            3. maintains low fuel-load.
        ii. 80 year change in Bitteroot National Forest:
            1. 1909: grassy with tall trees
            2. 1948: More small trees
            3. 1958: More shrubs, more small trees,
            4. 1968: Increase in brush and shrubs
            5. 1979: Dense trees, brush and shrubs
            6. 1989: Very dense fuel-load of trees and shrubs

iii.   Weather Conditions;
               1.   2002: Wide-spread extreme drought category in the west
                    and south-west
               2.   2004: Small extreme drought area
               3.   2005: Concentrated in Montana and Wisconsin
VIII.   Major Problems:
   a.   Wildfire suppression
   b.   Increased population
   c.   Preference for living in wildland-urban interface
   d.   60-100 Million acres and hundreds of communities are at risk
IX.   Debates:
   a.   Fuel Reduction Practices
         i.   Mechanical thinning
        ii.   Prescribed fire:
               1.   Most cost-effective method
               2.   Subject to weather-events (can become catastrophic)
                     a.   Carry high liability
       iii.   Thinning and fire:
               1.   Many areas have such heavy fuel-loads that prescribed fires
                    would become catastrophic
   b.   Insect Mortality:
         i.   Stressed forests are more vulnerable to disease and insects
        ii.   No agreement on whether to destroy diseased areas or leave them
              alone
   c.   Project Selection
         i.   Forest Service selection process vs. state Foresters selection
              process
   d.   Project Delays:
         i.   NEPA Process:
               1.   Appeals cause delays
X.   Alternatives to Address Problems:
   a.   2000-2001 National Fire Plan report to governor.
         i.   2000 report to President
        ii.   Budget Requests and appropriations
       iii.   Implementation Actions
   b.   Western Gov Implementation Plan (2002)
         i.   Action Strategy
               1.   Improve prevention and suppression
               2.   Reduce fuel-loads
               3.   Restore ecosystems
               4.   Promote community assistance
        ii.   Need to implement all four pieces for successful long-term
              mitigation

Community Responses to Wildfire Risk
XI.   Study: What is Effective Community Response?

a. What is a Sound Decision Process?
   i. Identifying How Communities Respond
      1. Identify most responsive communities in each state:
         a. Interface areas at risk (lightening strike, density, roads and railroads)
         b. Threat: slope (higher slope is a greater threat), fuel hazard, aspect, disturbance regime (when was the last time it burned?)
         c. Value: housing density
      2. Identify where people are more densely populated and what communities are located in this area.
   ii. Evaluating Responsiveness:
      1. National Fire Prevention Funding to AZ, CO, nad NM
         a. Plotted on maps to show risk versus responsiveness.
         b. Shows which communities have received the most funding to respond to the fire risk
b. Case Studies: New Mexico: Hazardous Fuel Reduction
   i. Ruidoso, NM
      1. 8000 people
      2. Seasonal, tourism oriented
   ii. Santa Fe, NM
      1. 70,000 people
      2. More year-round population
      3. Wealthier, more resources than Ruidoso
XII. Ruidoso, New Mexico Decision Process:
a. Status Quo Policy in the late 1980s
   i. $5 permit to cut trees larger than 5" in diameter
b. New 2002 Policy:
   i. Municipal property assessments to determine whether individual properties are putting community at risk
      1. Goal: treat 13,000 acres of private land
      2. Currently at 3,000 acres (meeting annual targets)
c. Policy Response:
   i. 1995 Forest Health Coalition:
      1. 1996 tree ordinance changed
   ii. 2000 fires begin
      1. Total of 7,963 acres over 3 fires (Cree
      2. Urban forester hired
d. Decision Process Lessons:
   i. Social response must follow the structural response to support policy changes.
      1. Ruidoso Wildfire Urban Interface Group
      2. Urban Forester
      3. Forest Health Coalition
      4. Forest Task-Force

   ii. Must create entire systems to deal enact prescription and enforce application:
     1. Slash and Debris Removal System must form to deal with the debris created by fuel management ordinances
     2. Forest Task Force with Ruidoso Planning and Zoning Committee pushes through ordinances
     3. Urban Forester and Ruidoso Wildfire Urban Interface Group oversees and coordinates all processes and enforcement

XIII. Santa Fe, New Mexico Decision Process:
 a. Status Quo Policy:
   i. Santa Fe Muncipal Watershed 17,520 acres
     1. Densely populated with 500 – 1000 tree per acre (much higher density than healthy forest)
     2. If watershed burned, 40% of water for community would be lost
 b. New Prescription:
   i. Treat 7,270 acres
     1. 700-1000 acres per year
     2. Thin trees up to 16" diameter
 c. Policy Response:
   i. 15,000 acres managed by USFS
   ii. 1,000 acres managed by City of Santa Fe
   iii. 1997 baseline assessment
   iv. 1998 NEPA work on plan
   v. 2001 plan released
 d. Decision Process Lessons:
   i. Once plan passed, Partner's Group (original stakeholders) disbanded, handed over to Forest Service
     1. Eliminated Forest Service's accountability
     2. Local Forest Service did not follow through on anything
   ii. Similar problems with application:
     1. Contractor wouldn't do the work, no accountability
 e. Without social infrastructure for follow-through, policy cannot be effectively enacted
   i. Ruidoso's Decision process was more effective because they built in accountability.
   ii. Fieldwork in Santa Fe generated more interest in implementation
     1. Forest Service made changes:
       a. Hired specialist on wildfire urban interfaces
       b. Brought original stakeholder group back into the process