Research Agenda for the Future

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College Mission

- Study and investigate the functionality and sustainability of natural resource systems
- Natural and managed environments
- Interdisciplinary approach across multiple scales of urban and wild land landscapes
- Generate and disseminate information through our teaching, research and outreach programs

College Vision

To be a world-class internationally recognized source of knowledge relevant to environmental and natural resource issues

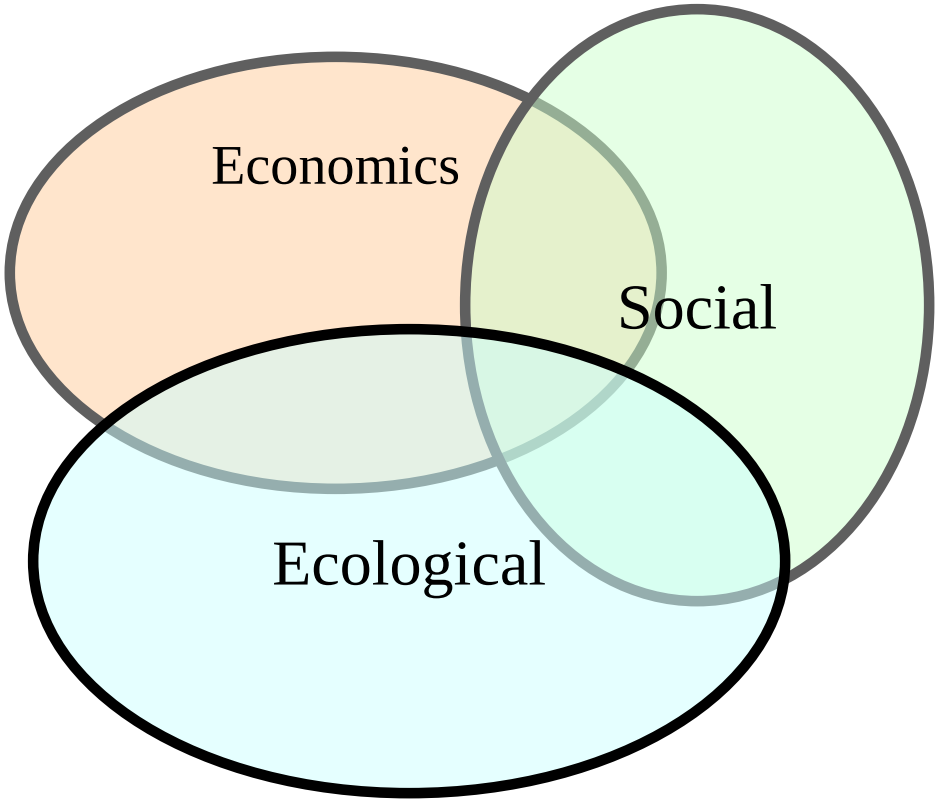
A World Class Vision Implies

- High quality (faculty, staff, students, programs, graduates)
- High impact (at UW and throughout our external community)
- Sufficient resources (facilities, space, funds)

Integrating Theme Is Sustainability

- Sustainable forestry in managed and natural forests
  - Plantations, parks, reserves, watersheds
- Sustainable urban environments
  - Urban forestry, horticulture, restoration ecology, water, wildlife
- Sustainable forest enterprises
  - Paper mills, precision forestry technologies, tourism, recycling, wood products, non-timber products

Sustainability



Our Academic Programs

- Stress key principles and processes that explain the behavior and interaction of biotic and social systems along gradients from highly to minimally impacted terrestrial ecosystems
- Focus on the interaction between nature and humans with a synthesis of scientific knowledge related to natural resources and environmental sustainability

Our Research Programs

- Emphasize the functionality and sustainability of complex natural resource and environmental systems featuring:
  - Integration
  - Interdisciplinarity
  - Collaboration (on and off campus)
  - Team-approach
  - Multiple scales
  - Gradient from urban to rural ecosystems

Characteristics Of Our Research Agenda

- Emphasize coupled human and bio-physical systems
- Supports development of a new science of sustainability to integrate ecological and economic approaches in a socially acceptable manner
- Develops technology; discovers new scientific knowledge; and transfers knowledge to the user community

Assumptions Relevant to Our Research Mission

- We are being asked to do more with less governmental support
- To maintain or enhance our research, we must look to alternate sources of funding
  - Private fund raising will grow in importance (foundations, corporations, individuals, NGOs)
  - Aggressively seek federal funding
- Continually look inward to gain new efficiencies and to build campus partnerships

Assumptions Relevant to Our Research Mission

- Build strong partnerships with external collaborators
- Our research agenda must align with the priorities and expectations of both society and government funders
- To prosper in this climate, we must proactively seek research funds to support our agenda

We Recognize

- Our MS and PhD graduate programs must continue to:
  - Provide an in depth specialized, disciplinary education
  - Promote interdisciplinary systems thinking for an integrated team-based approach to help solve our complex biological and social problems

We Recognize

- Research funding will always be somewhat opportunistic as funding sources dictate
- Faculty will pursue research agendas best suited to their disciplinary needs
- Priority will be given to the College's research agenda when resources are allocated

Possible Research Mission

- To discover and understand ecosystem processes, develop new approaches for the use and protection of natural resources and environmental services, and understand human behavior and decisions about natural resources

Source: Don DeHayes, President, NAPFSC

Possible Research Questions

- How does the natural world work?
- How do people use the natural world?
- How do such uses change the way the world works?
- How do these uses and changes affect people?

Source: Don DeHayes, President, NAPFSC

Emerging Research Areas

- Landscape analysis
- Spatial analysis and information management
- Watershed science and planning
- Forest ecosystem health and restoration
- Risk analysis (ecological and economic components)

Source: National Graduate Education Needs and Priorities, NAPFSC

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Three Suggested Research Themes

1. Ecosystem Structure and Function
   - Productivity
   - Health
   - Function
   - Management

Suggested Research Themes

2. Social and Human Systems

- Environmental valuation
- System integration (population, ecosystem, and socio-economic)
- Natural and human system interactions (land use, watershed planning, open space, and parks)
- Communication and negotiation

Suggested Research Themes

3. Technology
   - Bio-technology
   - Sustainable energy production (energy from biomass)
   - Sustainable products and low impact processes
   - Information and communication technology
   - Satellite and remote imagery

Suggested Research Themes

- Ecosystem Structure and Function
- Social and Human Systems
- Technology

Expected Outcomes Today

- Develop research initiatives within 3-4 broad topical areas
- Identify profile for new faculty hires

The End