Sustainable Forests: Ecologically, Economically and Socially

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Topics for Today

- **Talk about sustainability**
- **Future direction of our College as it incorporates this as its principle theme**

What Is Sustainability?

- To manage (including restoring and preserving), and use the products and amenities of managed forests, natural wild lands, and urban and suburban environments so that they are maintained in a productive state over the long term

What Is Sustainability?

- **Rational and dynamic approach**
- **Guarantees continuation of a set of activities, functions or processes over a long period of time**
- **Uses interdisciplinary set of social, ecological and economic sciences in an integrated fashion**

Definitions

- **Sustainable forests are the desired goal**
- **Sustainable forestry is the means to the desired end**

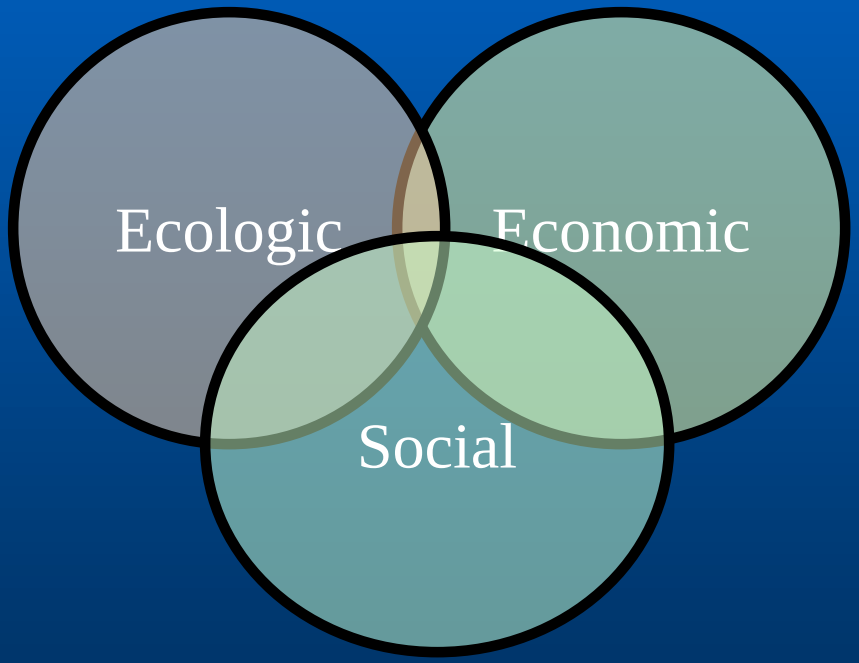
Sustainable Forestry

- **Managing a forest to meet all existing regulations such that ecological, social and economic factors are balanced to meet the needs of the present without compromising the ability of future generations to meet their needs**

Sustainable Forestry

- **A land stewardship ethic that integrates reforestation, growing, and harvesting trees for useful products while conserving soil, air, and water quality, wildlife and fish habitat and aesthetics, and protecting: a) the resource from fire, pests, and diseases and b) lands of special significance**

Sustainability Occurs at the Intersection



Sustainable Forestry

- **Requires that we adopt an integrated approach that simultaneously considers utilitarian values as well as ecological and social values**
- **May accomplish this in several ways**

Models of Sustainability

- **Find best economic solution subject to ecological sustainability constraints**
- **Find best ecological solution subject to economic sustainability constraints**
- **Jointly optimize ecological and economic values**

Observations

- **A balance of ecological and economic values in a socially acceptable fashion**
- **The use of proper science is absolutely necessary to find the proper balance but is by no means sufficient**

Forest Planning Is Complex

- **Multiple objectives and players (tradeoffs)**
- **Long time horizons and uncertainty**
- **Hierarchical in nature**
  - **Strategic (long term sustainability plans)**
  - **Tactical (landscape plans)**
  - **Operational (project plans)**
- **Challenging to coordinate levels of planning (time, space, data)**

Observations

- **The challenge to actually define and implement sustainable practices is tremendous**
- **It may be the greatest challenge for educators, resource managers, scientists, and policy makers at the start of this Century**

College Mission Statement

- **The College of Forest Resources is dedicated to generating and disseminating knowledge for the stewardship of natural and managed environments and the sustainable use of their products and services through teaching, research, and professional and public outreach**

College Vision Statement

- **The College of Forest Resources will be a world-class internationally recognized source of knowledge relevant to environmental and natural resource issues**

Sustainability Is The Integrating Goal

- **Sustainable forestry : 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**

College Observations

- **Our College has adopted sustainability as its key integrating concept**
- **Our undergraduate and graduate programs are being redesigned to support: sustainable forestry, sustainable urban environments and sustainable enterprises**

College Observations

- **Have identified five undergraduate majors for the College that support these three areas**
- **Looking to build an integrated curriculum with a small number of areas of concentration for each major**

College Observations

- **The curriculum has a solid core taken by all students**
- **A senior capstone course will involve all students in the curriculum**

College Observations

- **Use sustainability to help design and formulate our future research, development and outreach agendas**
- **Search for exciting interdisciplinary opportunities at the intersections of traditional sciences that will further promote new research**

College Observations

- **Exciting times lie ahead as we incorporate the concept of sustainability into our programs; focus our resources on our high priority programs; and respond to the challenges that lie ahead**

College Observations

- **Our goal is to position the College so that it continues to make significant contributions across an array of important areas in the years ahead**

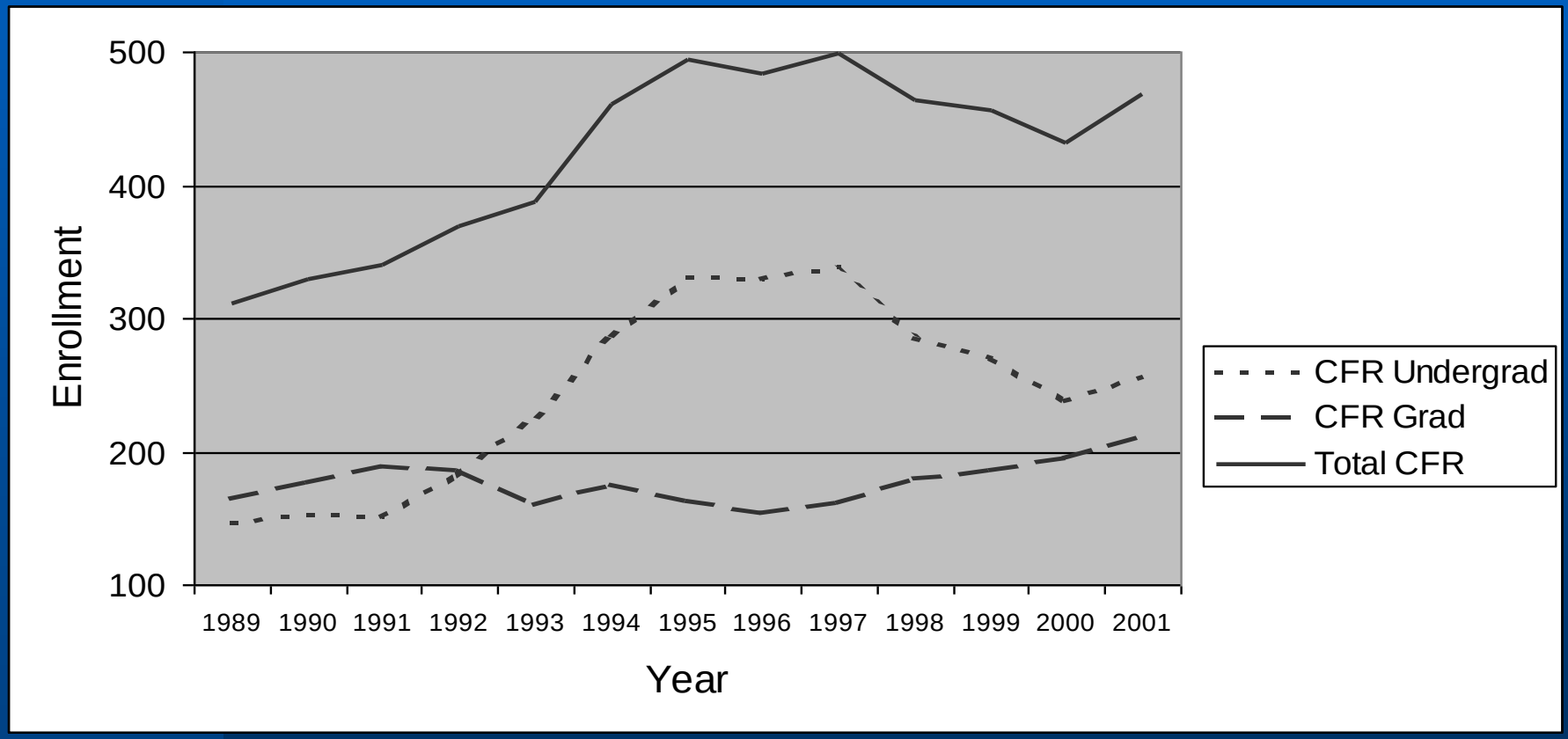
Autumn CFR Enrollments

- **Undergraduate: 256 students**
- **Graduate: 212 students**
- **Largest class: 1003 students**
- **Graduated last year: 68 students**

Autumn CFR Enrollments

- **Undergraduate**
  - **Conservation: 40**
  - **Forest management: 31**
  - **Forest Engineering: 13**
  - **Paper Science: 54**
  - **Environmental Horticulture: 34**
  - **Wildlife: 52**
  - **Sustainable Resources: 20**
  - **Pre-engineering and pre-forestry: 12**

CFR Enrollments



Undergraduate Enrollment