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Can Florida Sustain Its Agricultural Lands?

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The Context

➤ Population Growth

- 1900 – 500,000
- 1950 – 2.8 million
- **1960 – 5 million**
- 1970 – 6.8 million
- 1980 – 9.7 million
- 1990 – 12.9 million
- **2000 – 16 million**
- 2007 – 18.6 million
- 2030 – 28.7 million (U.S. Census Bureau)
- 2060 - 36 million (1000 Friends)

Loss of Agricultural Lands

- Between 1964 and 1997, almost 5 million acres of agricultural lands were lost to development, mostly ranch and forestlands.
- In 1999, it was estimated that an additional 1.3 million acres would be lost to development in a 10-yr period.
- FDACS estimates the loss of agricultural lands to development and conservation to be as much as 5 million acres by 2020.

Loss of Agricultural Lands

➤ Citrus

- Acreage peaked in 1970 at 940,000 acres, declined for nearly a decade and then peaked again at 860,000 acres in 1994
- Current acreage is 620,000, though productive acreage is around 550,000
- In addition to development pressure, citrus has been subject to freezes, disease, hurricanes, and international trade challenges, often in combination.
- Industry may be near the “tipping point”

Loss of Agricultural Lands

➤ Forestlands

- In 2003, forestlands covered 42% of the state's 34.6 million acres, down from 60% in 1949 and 52% in 1970.
- 2003 projection predicted that if population doubled by 2030, an additional 5 to 7 million acres of forestlands would be lost
- Privately-held forestlands account for 80% of the state's forested acreage
- Continuing losses are estimated to be 80,000 acres per year

Maintaining Agriculture in the Rural Landscape

- Maintaining Agricultural Lands

- VS

- Maintaining Agriculture on the Land

Programs for Maintaining Agricultural Lands

- Rural and Family Lands Protection Program
 - Farmland Protection Program
 - Forest Legacy Program
 - Wetland Reserve Program
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Rural and Family Lands Protection Program (RFLPP)

- Created by the 2001 Florida Legislature in the Rural and Family Lands Protection Act
- In 2001 report to the Legislature, FDACS estimated that \$1.5 billion over a 10-year period would allow one acre to be protected for each acre lost.
- The 2008 Florida Legislature funded the RFLPP for the first time, as part of the reauthorization of Florida Forever.

RFLPP Purpose

- “The purpose of the act is to bring under public protection lands that serve to limit subdivision and conversion of agricultural and natural areas that provide economic, open space, water, and wildlife benefits by acquiring land or related interests in lands such as perpetual, less-than-fee acquisitions, agricultural protection agreements, and resource conservation agreements and innovative planning and development strategies in rural areas (s. 570.70, F.S.)

Farmland Protection Program (FPP)

- USDA Natural Resources Conservation Service (NRCS) program
- Provides matching funds of up to 50% to assist state, local, or tribal governments and NGOs in the purchase of development rights to keep productive farm and ranchland in agricultural uses.
- Over the last 6 years, total funding of \$13.6 million, and 7500 acres protected

Forest Legacy Program (FLP)

- USDA Forest Service Program
- FLP protects environmentally significant forestlands threatened by permanent conversion to non-forest uses
- Federal cost share (up to 75%) for fee title purchase or perpetual easement
- State and federal priority listing process, projects funded in priority order subject to Congressional appropriation

Wetland Reserve Program (WRP)

- USDA NRCS program
- Provides for purchase of permanent easements or cost share assistance for wetlands restoration
- Up to 75% cost share assistance for “restoration only” (10- or 30-year agreement)
- Permanent easements/100% cost share for restoration
- Over the last 6 years, total funding of \$137.1 million, and 104,000 acres restored or protected under permanent easement

Maintaining Agriculture on the Land

- Traditional easement programs do not provide sufficient *economic* incentives
- Economic incentives can be provided through new products (fuels and energy) as well as services, primarily *environmental services*

Maintaining Agriculture on the Land

- The challenge in regard to “green payments” is to create markets that allow private landowners to make rational economic decisions to continue practices that provide environmental benefits.

Agricultural Ecosystem Services

- Clean water
- Clean air
- Habitat and food sources for biodiversity
- Soil conservation
- Carbon sequestration
- Disease and invasive species suppression
- Open space
- Climate regulation
- Recreational opportunities (hunting, wildlife viewing, agrotourism)
- Water storage
- Wildlife conservation
- Biological pest control
- Pollinator management

Market-Based Environmental Services Programs

- Florida Ranchlands Environmental Services Project
 - Based in the Lake Okeechobee Watershed
 - Field-testing program to pay ranchers for providing water retention, phosphorus load reduction, and wetland habitat expansion
 - Provide services at a lower cost than public investment in regional water storage and treatment facilities

Market-Based Environmental Services Programs

➤ Florida Ranchlands Environmental Services Project

- Create a financial incentive for land to remain in ranching rather than be converted to more intensive agriculture or urban development
- Primary objective is the development of a system for accurately measuring and accounting for services provided.
- By 2011, propose a program that can be broadly implemented

Carbon Sequestration and Credit Trading

- Governor's Climate Action Team - Agriculture, Forestry, and Waste Management Technical Work Group
 - Forest Retention, Restoration, and Management for carbon sequestration
 - Farming practices that achieve GHG benefits (soil carbon mgt, permanent cover, nutrient mgt, improved harvesting methods)
 - Manure Digesters

Carbon Sequestration and Credit Trading

- Governor's Climate Action Team - Agriculture, Forestry, and Waste Management Technical Work Group
 - Use of Biomass (waste and “energy crops”)
 - Electricity, heat, and steam production
 - Liquid/gaseous biofuel production
 - Reduce conversion to development to preserve open space and agricultural lands

Carbon Sequestration and Credit Trading

- Florida Forestry Association Carbon Sequestration Pilot Project
 - Florida forests currently sequester an estimated 5.8 million tons of carbon each year.
 - In partnership with Environmental Defense, developing an “offer sheet” template for sale of carbon credits
 - Assessing management options for 16,000 acres of private forestland to provide estimates of various levels of carbon sequestration that can be accomplished.

Carbon Sequestration and Credit Trading

➤ Florida Forestry Association Carbon Sequestration Pilot Project

- School of Forest Resources and Conservation, University of Florida, has developed the management options for carbon sequestration
- Environmental Defense consultants will calculate the estimated carbon sequestration achieved by each management option
- “Offer sheets” will be developed that landowners can use to market carbon credits to potential buyers

Questions?

