



NATIONAL SUSTAINABILITY SUMMIT / NATIONAL ENERGY EXTENSION SUMMIT

So, now what?

Nick T. Place, Dean and Director of Extension

THANK YOU!

- This is the 3rd Sustainability Summit, and the 4th Energy Summit for Extension
 - Great connection of Energy and Sustainability
- Thank you to everyone who has worked to make this happen!
 - UF/IFAS faculty & staff for hosting
 - Multiple universities, agencies, organizations, counties, USDA, etc. have all played a major role

Summit Theme:
Harnessing our
Collective Energy to
Address the Rising
Tide

CONFERENCE TRACKS

- Energy
- Climate
- Water
- Food
- Land
- Community Capacity & Resilience

The University of Florida is:

- One of only six comprehensive universities in the nation
- Member of the American Association of Universities (AAU); there are only 2 AAU institutions in the south
- Academically one of the top 10 public universities
 - Now aiming to be top 5 public university
- Ensuring public relevance and value in this drive for preeminence

Accessibility, research and discovery in the public interest



UF/IFAS Extension

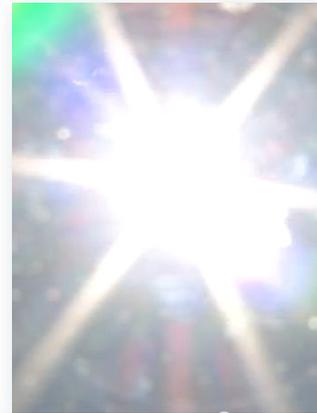
- Disseminating knowledge and educating the public in agriculture, natural resources, life sciences and human sciences
- Expanding to purposefully connect with the UF campus at-large
- We see that UF/IFAS Extension needs to be the “Front Door” to the Land Grant University

Extension is all about:

- Teaching people
 - In their own context
 - Assess own needs and problems
- Helping people
 - Acquire knowledge and skills
 - Problem-solving and decision-making
- Inspiring people
 - Taking action

VISIONING EXTENSION

Our goal is to address major issues facing our clientele



Addressing Vexing Issues

- Extension must work on tackling highly critical issues for clientele
 - Food Systems; Water; Climate; Environmental Sustainability; STEM; Health; Financial Literacy; etc.
- Requires interdisciplinary and collaborative efforts across all aspects of a Land Grant University
 - Goal is to bring together great educators, researchers, thinkers & doers
 - Philosophical and financial support are essential for advancing collaborative efforts

Building a Stronger Future

“Our job is not to defend yesterday but to invent tomorrow.”

Peter Drucker, Leadership and Management guru

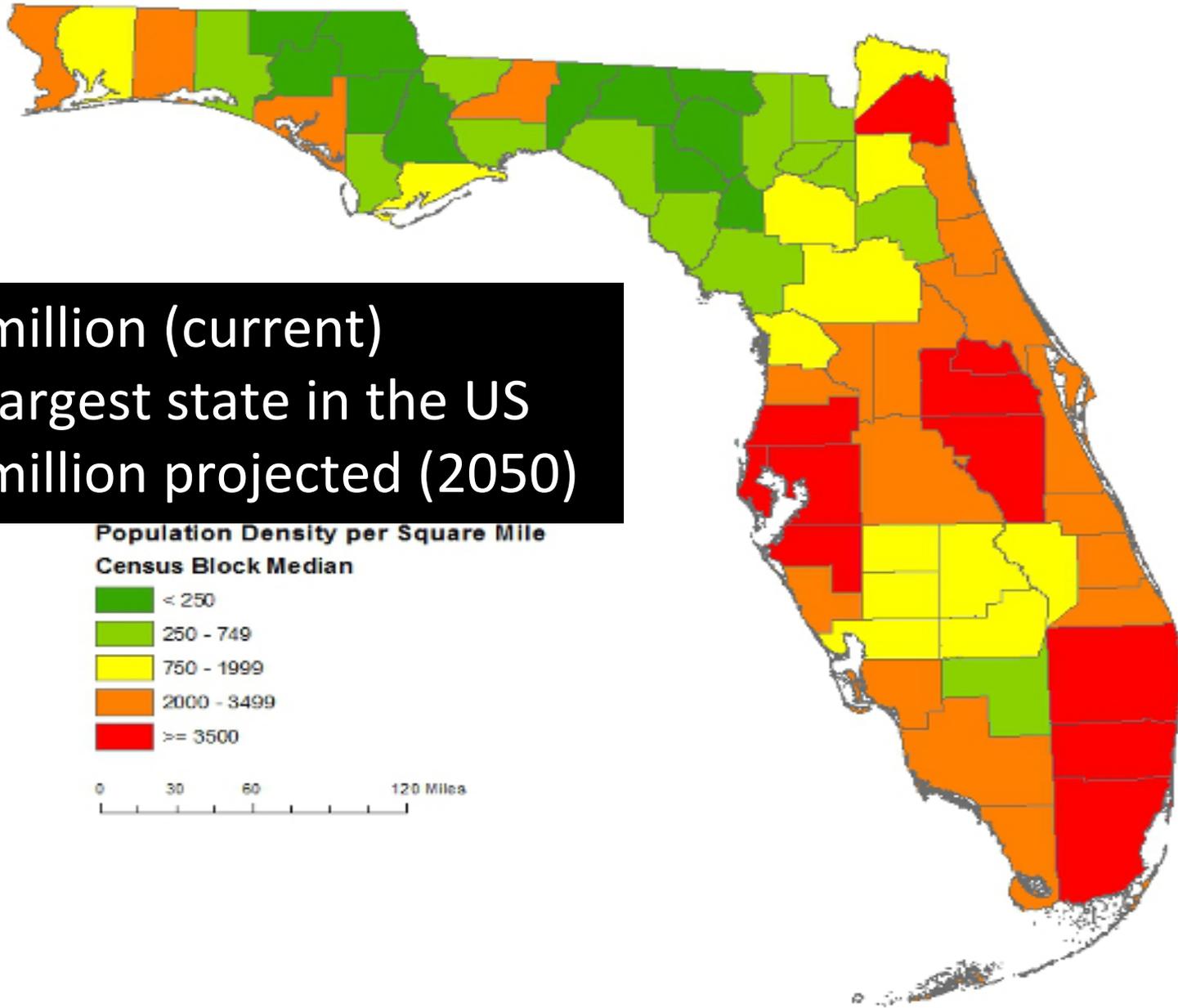
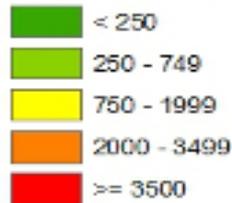


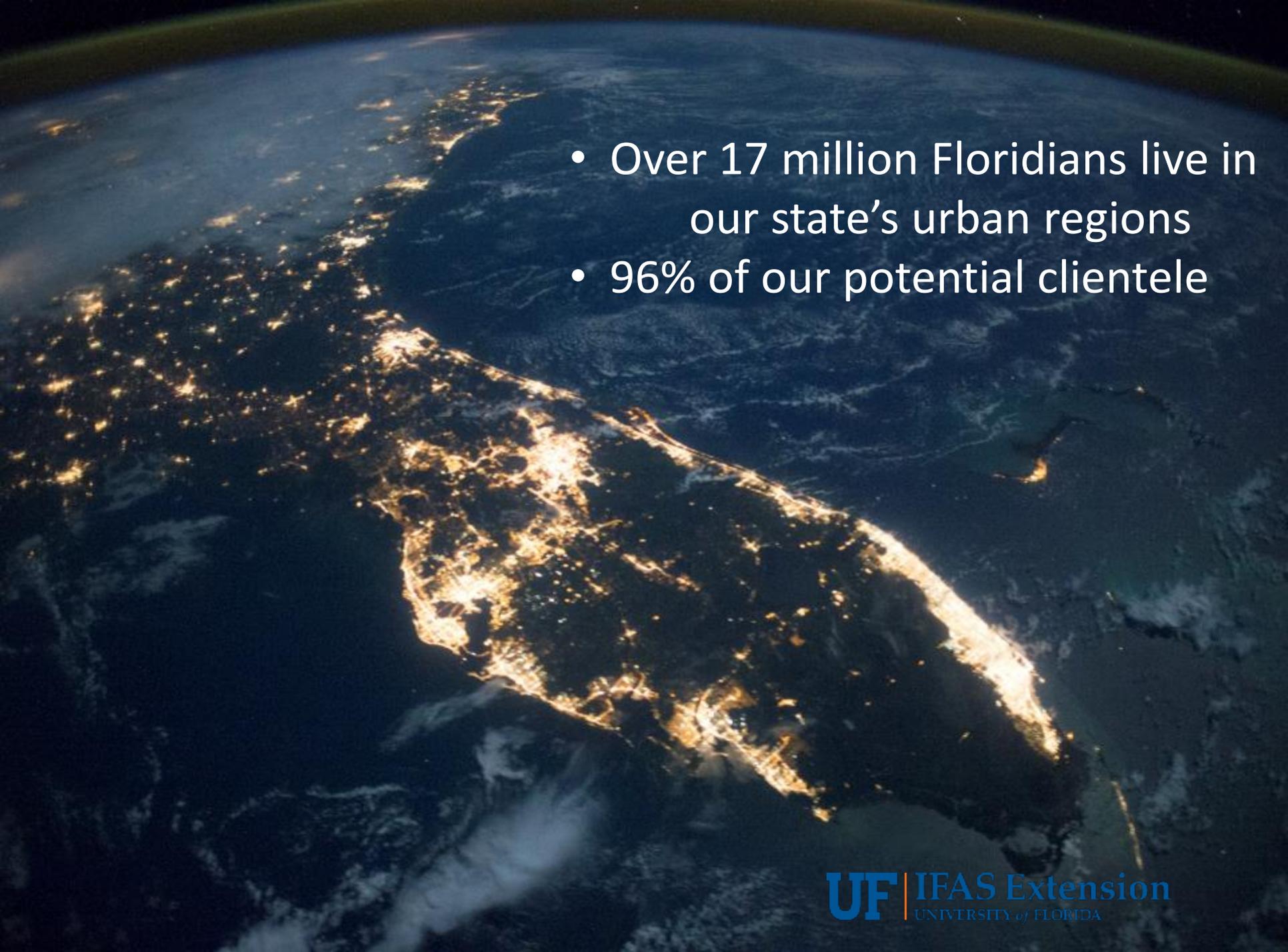
Our Land Grant University
commitment is to achieve greater
public good through higher
education

*This includes rural, suburban and urban audiences

21 million (current)
3rd largest state in the US
30 million projected (2050)

Population Density per Square Mile
Census Block Median



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- A satellite photograph of the state of Florida at night, showing a dense network of city lights and urban sprawl. The lights are concentrated in the eastern and central parts of the state, with a prominent glow along the coast and in the major metropolitan areas. The surrounding land and water are dark, with some faint lights visible in the distance.
- Over 17 million Floridians live in our state's urban regions
 - 96% of our potential clientele

How does Florida connect with this Summit?

- Florida is at the front lines of these sustainability and energy issues
- Communities in all of our 67 counties are experiencing the effects of climate change and sea level rise *today*
- For example, flooding of streets, salt-water intrusion, spread of pests & diseases, variation in climate affecting crop production, etc.

ENERGY CONSUMPTION

- Florida is 2nd in electricity generation, and 3rd in usage. However, we are electricity-deficit
- 27% of energy consumed is for air conditioning, more than 4X the national average
- Florida accounts for 8% of the US biomass-fueled electricity generation; 2nd to CA
- Natural gas accounts for 2/3 of FL's electricity generation
- FYI: in 2017, Hurricane Irma cut power to 2/3 of the population

WATER CONSUMPTION

- Floridians used 6.4 Bill. Gal./day in 2015; by 2035 this is projected to increase by 17% to 7.5 Bill. Gal.
- Public supply and agriculture account for 39% and 40%, respectively, of total water usage
- Between now and 2035, public water demand is projected to increase by 23%, while ag irrigation use will grow by 6%
- FYI: Floridians use 50% of all drinkable water on lawns

WATER CONSUMPTION MAY OUTPACE AVAILABILITY

- Engineers estimate that we can draw a total of 850 mill. gal. of water/day without damaging the natural system
- It is estimated that demand for water in Florida will be 1.1 bill. gal. by 2035
- Where will we come up with 250 mill. gal./day that we don't have??

EXTENSION WATER PROGRAMMING

- Last year, over 220,000 homeowners and landscape professionals participated in Extension water conservation programs
- This resulted in impacts such as:
 - Estimated total savings of 387 mill. gal. of water
 - Enough savings to supply 4,000 households with water
 - \$1.3 mill. in utility savings
- This is very good, but more will be needed

EFFECTS OF CLIMATE CHANGE

- SE US faces increasing risk due to heat, flooding, and vector-borne disease
- Extreme rainfall events and sea level rise are increasing flood frequencies
 - Increasing impact upon property values and infrastructure viability

EFFECTS OF CLIMATE CHANGE

- Changing winter temperature extremes, wildfire patterns, sea levels, hurricanes, floods, droughts and warming ocean temperatures are redistributing species and modifying ecosystems
- Agriculture production in Florida is facing major issues with salt water intrusion

Picture from South Florida Street



CLIMATE CHANGE PREDICTION

For the Tampa Bay region – where we currently are:

We can expect to see sea level rise between 6” to 2.5’ by 2050; and between 1’ to 7’ by 2100

Such impact will affect every one of us

Sea Level Rise: The Future of Florida



Harmful Algae Blooms

Another major issue facing
our coastal areas and
waterways









gettyimages
Jana Kriz

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HARMFUL ALGAE BLOOMS: A VEXING ISSUE THAT INVOLVES:

- Agriculture
- Urban runoff
- Landscapes/Turf
- Septic systems
- Increasing population
- Politics
- Funding
- And other issues.....

This is not a new issue, either

"It appears that this misfortune is not a new experience in the eastern part of the Gulf of Mexico. One of the oldest residents on the Floridan coast, Mr. Benjamin Curry, of Manatee, told me, what others confirmed, that as far back as 1844 a wide-spread destruction of all sorts of saltwater animal life occurred, apparently due to causes precisely similar to those which produced the lately noticed desolation. Again, in 1854 the fishes suffered all along the southern shore, and have done so at intervals since to a less degree, until in 1878 an excessive fatality spread among them, which was wider in the extent of its damaging effects and probably more destructive in point of number of victims than the later visitation of 1880. Even the cooler half of 1879 was not exempt from some appearance of the plague."

Source: *On the Fish-Mortality in the Gulf of Mexico*; Ernest Ingersoll, US Fish Commission, Washington, DC; Feb. 20, 1881;

https://repository.si.edu/bitstream/handle/10088/12392/1/USNMP-4_195_1881.pdf

So, what are **we** doing
about it?

HAB INITIATIVE

Major effort that focuses on:

- Causes & controls, Bloom formation and toxins, Environmental effects, Economic effects, Human health, Public outreach and education

UF/IFAS led effort with many partners:

- Universities, Agencies, Organizations, etc. at the Federal, State and Local levels

Major inter- and multidisciplinary effort

ISSUES LIKE THESE EXAMPLES CUT ACROSS ALL POPULATION SECTORS

Metropolitan and rural areas share with many of these existing vexing issues

A robust and proactive Land Grant and Extension effort is necessary for building stronger connectivity between urban, suburban and rural communities to address these types of vexing issues

Ultimately...

It's going to take strong leadership, along with leveraging of our collective skills, knowledge, tools and commitment to change



Roger Bannister, 1954

Once you stop believing something is impossible, it becomes possible...



Roger Banister, Broke 4-minute mile barrier, 1954

FUTURE-BASED LANGUAGE TRANSFORMS HOW SITUATIONS OCCUR TO (AND ARE UNDERSTOOD BY) PEOPLE

Declaration of Independence – 1776

Did we say statements like:

- *We would like to* declare independence
- *We are going to try to* declare independence
- *We are thinking about* declaring independence

Future-based language creates purpose

Fighting for freedom is powerful purpose

FUTURE-BASED LANGUAGE TRANSFORMS HOW SITUATIONS OCCUR TO (AND ARE UNDERSTOOD BY) PEOPLE

Doesn't have to be negative declaration

JFK: "We choose to go to the moon!" (Sept. 12, 1962)

- Leading the world in scientific advancements
- Fighting for freedom
- Competing with Communist Russia

FUTURE-BASED LANGUAGE TRANSFORMS HOW SITUATIONS OCCUR TO (AND ARE UNDERSTOOD BY) PEOPLE

Projecting a more positive/better future heavily influences how people see the present and helps them get on board with the future you envision

The hurdle: this is not easy, especially when we are dealing with vexing issues and problems that won't be solved today, and maybe not tomorrow either

Challenge: Applying this principle & practice to the vexing issues addressed at this Summit

Default Future:

If we do not apply change, there is a basic course already in motion.

The success of addressing the vexing issues we have in front of us is dependent upon each one of us.

Working together, we must work on:

- Protecting the natural resources we depend upon for food, water, fiber....
- Supporting the long-term well being and quality of life of individuals and communities....
- Engaging and welcoming all voices that want to take part in crafting solutions that will affect positive change....

Rethinking Leaders and Leadership

All it takes to be a leader is to have an extraordinary commitment to something

So, what are *we (you)*
going to do?

THANK YOU