National Institute of Food and Agriculture
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Overview of NIFA's Institute of Bioenergy, Climate and Environment

Presentation to:

ESCOP Social Science Subcommittee

Franklin E. Boteler

February 21, 2012

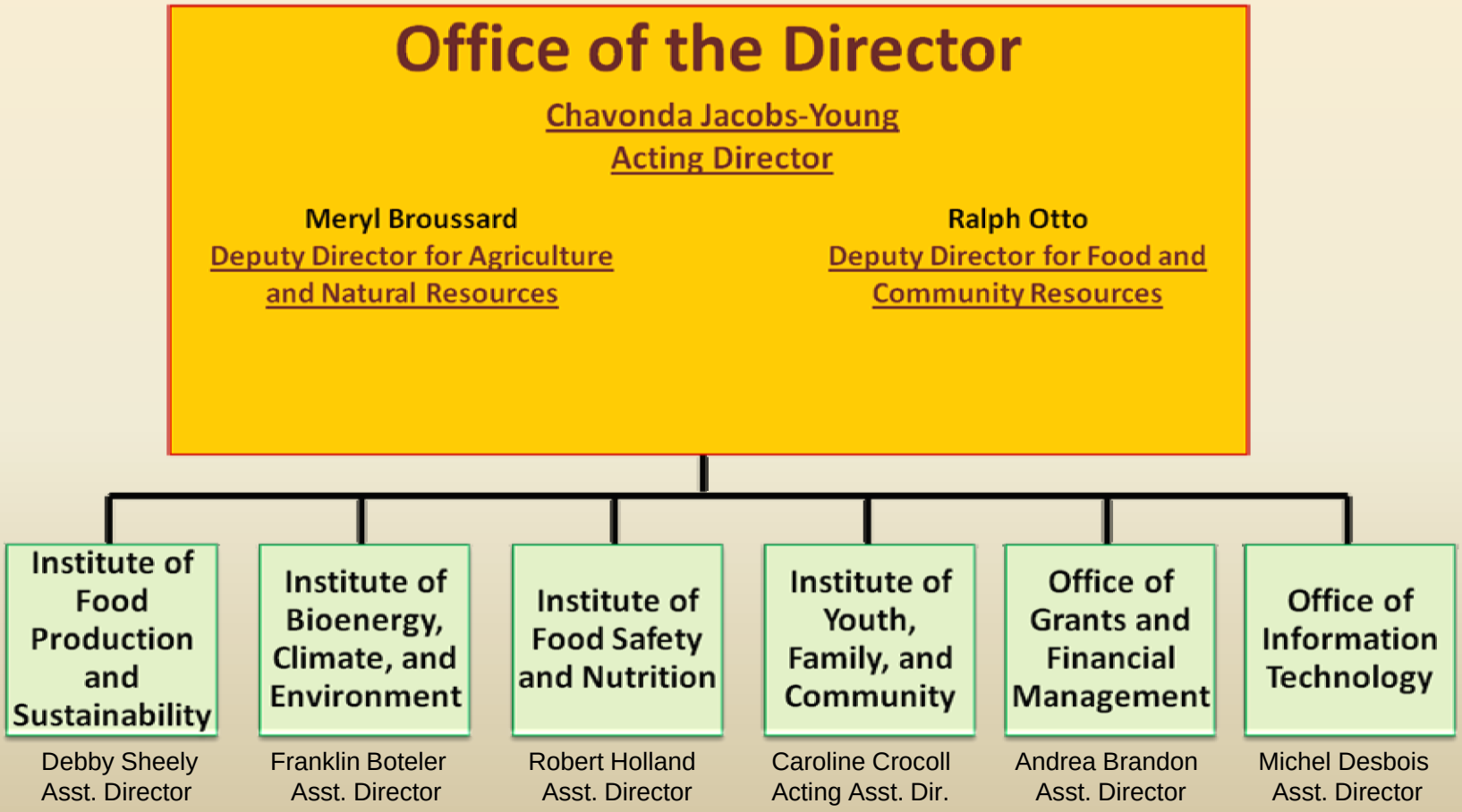
2008 Farm Bill Created New Agency—

National Institute of Food and Agriculture (NIFA)

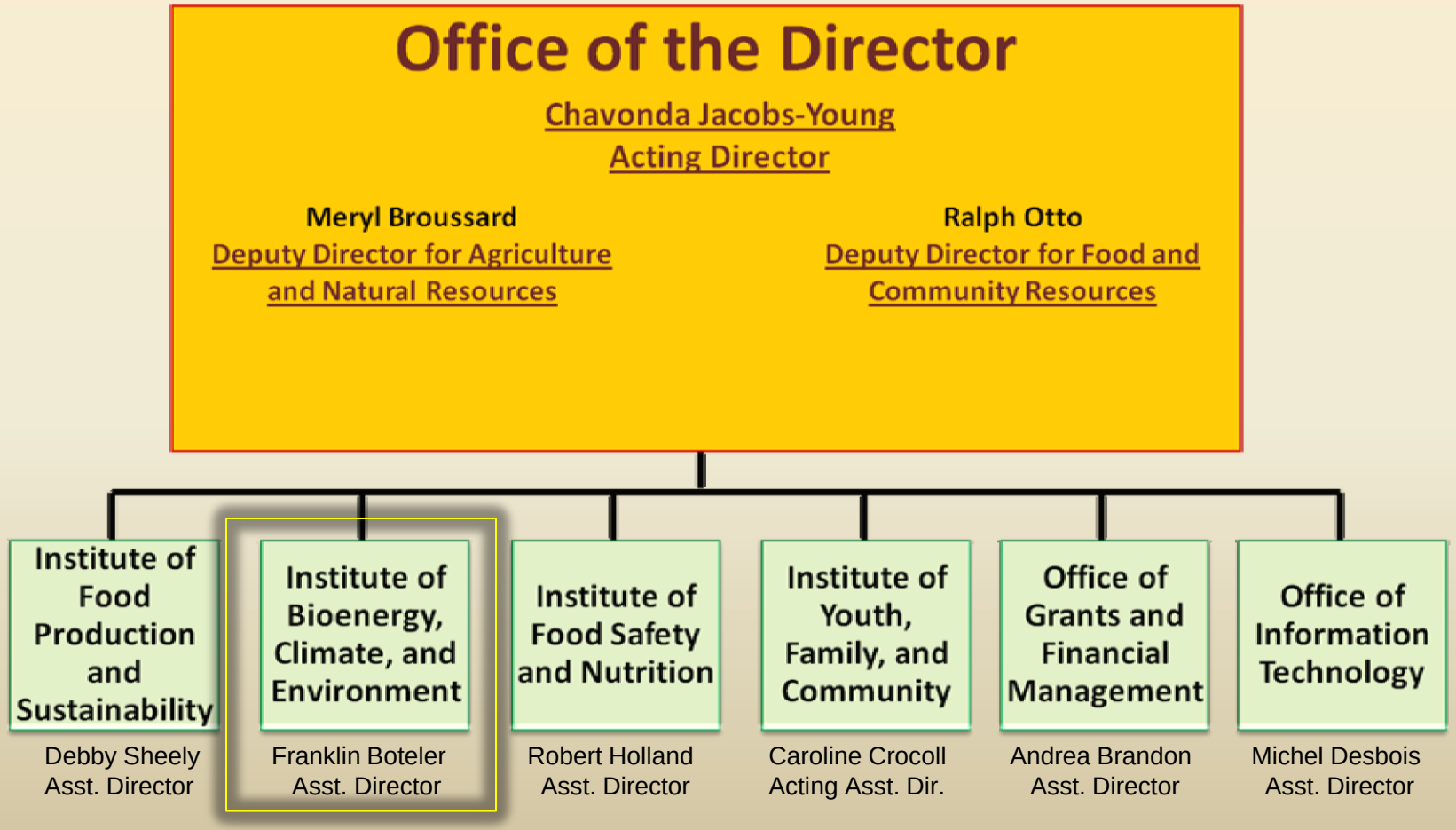
Purpose: Advance science.

Science: Research, Education, Extension
(both independently and integrated)

NIFA Organization Chart



NIFA Organization Chart



Institute of Bioenergy, Climate, and Environment

The Institute of Bioenergy, Climate, and Environment (IBCE) is one of four NIFA institutes that fund transdisciplinary, outcome-driven programs to address national science priorities. IBCE programs advance energy independence and the adaptation of agricultural, forest, and range production systems to climate variables. The institute's core programs address basic natural resources—including air, water, and soil—to advance sustainable forest, range, and agricultural production. IBCE comprises three divisions: the Division of Bioenergy, the Division of Climate Change, and the Division of Environmental Systems. The divisions promote transdisciplinary, seamless integration of research, extension, and education efforts across NIFA programs.

Division of Bioenergy

The Division of Bioenergy supports the development of regional systems that produce sustainable bioenergy and biobased products. The goal of these systems is to deliver liquid transportation biofuels to help meet the nation's goal of 36 billion gallons per year of biofuels by 2022 and reduce our national dependence on foreign oil. The division administers grants that support sustainable biomass production, genomic improvements of bioenergy feedstocks, the logistics of handling feedstocks, biomass conversion, product development, and programs that facilitate and clarify land-use changes resulting from feedstock production. Other programs seek to identify the environmental and socioeconomic impacts of biofuels in rural communities.

Division of Climate Change

The Division of Climate Change supports activities that help agricultural and natural resource systems adapt to climate variables such as droughts, floods, and temperature extremes. The division focuses on challenges that are fundamental to sustainable agricultural production and the management of healthy forests and rangelands. Long-term outcomes include developing new varieties of plants and animals that can adapt to climate variability; increasing carbon sequestration; identifying new strategies for agriculture and forest production systems that are adapted to climate variability; advancing the sustainable use of natural resources; and improving conservation activities in the use of energy, nitrogen fertilizer, and water.

Division of Environmental Systems

The Division of Environmental Systems advances knowledge in the areas of natural resources, environment, and conservation. The division supports scientific work that involves air, water, soil, and wildlife resources in order to advance the sustainability of agricultural, forest, and range production systems. Increasing water shortages, loss of topsoil, reduced biological diversity, and loss of habitat are among the issues that may significantly impact the sustainability of agriculture and slow or reverse the expansion of agricultural goods and services. Program priorities include improving air and water quality; developing sustainable ecosystem services; wildlife damage management; maintaining soil health and soil restoration; and improving the management and sustainable use of forests, wildlife, and rangelands. Grant programs develop innovative ways to achieve sustainable use of natural resources and develop educational and extension programs that implement best management practices to enhance environmental, social, and economic benefits.

USDA's Small Business Innovation Research (SBIR) program is housed within the Division of Environmental Systems. SBIR grants:

- stimulate technological innovations in the private sector;
- strengthen the role of small businesses in meeting federal research and development needs;
- increase private sector commercialization of innovations derived from USDA-supported research and development efforts; and
- foster participation by women-owned and socially and economically disadvantaged small business firms in technological innovations.

Program Description	Date Published	Proposal Submission Due Date (Estimated)	#of Awards (Estimated)	Program Contact
AFRI Climate Variability and Change 2012	9/21/2011	see below	17-19	Michael Bowers lead. Louie Tupas
AFRI Climate Variability and Change Regional Climate CAPS (A3101)	9/21/2011	1/13/2012	2	Ray Knighton lead, Michael Bowers, Louie Tupas
AFRI Climate Variability and Change Adaptation and Mitigation (A3142)	9/21/2011	12/16/2011	11	Diana Jerkins lead, Michael Bowers, Louie Tupas
Water Sustainability and Climate (A3151: Joint with NSF and DOE)	6/16/2011	10/19/2011	2-3	Mary Ann Rozum lead, Nancy Cavallaro, Louie
Earth System Modeling 2 (A3151: Joint with NSF and DOE)	12/21/2011	5/11/2012	2-3	Nancy Cavallaro lead, Mary Ann Rozum, Louie
AFRI Foundational Program: Renewable Energy, Natural Resources, & Environment	TBA	TBA	TBA	A. Mohamed--M. Poth
Biomass Research and Development Initiative	9/21/2011	12/15/2011	9	C.Bailey
AFRI Sustainable Bioenergy--Regional Appoaches	11/1/2011	12/15/2011	1	W.Goldner
AFRI Sustainabile Bioenergy--Policy Options for and Impacts on Regional Biofuels Production	11/1/2012	12/15/2011	5	F. Hunt
AFRI Sustainable Bioenergy--Feedstock Production on Biodiversity (Pollinators and		12/15/2011	6	D. Cassidy
AFRI Sustainable Bioenergy--Socioeconomic Impacts of Biofuel Production on Rural Communities		12/15/2011	5	F. Hunt
AFRI Sustainable Bioenergy--Environmental Implications of Director and Indirect Land Use		12/15/2011	6	N. Cavallaro
Feedstock Genomics (AFRI Joint with DOE	Winter '12		2	E. Kaleikau
Biodiesel Fuel Education Program	TBD	TBD	2	C. Bailey
Critical Ag Materials	Summer '12			C. Bailey
SBIR (Commercialization Assistant Program, CAP)	TBD		1	C. Cleland
SBIR (Phase II)	12/12/2011	3/1/2012	38	C. Cleland
SBIR Phase 1	7/13/2011	9/2/2011	92	C. Cleland
Sun Grants	TBD	TBD	1	C. Bailey
406 Water Quality	TBD			M. O'Neill
Forest Products Research (Wood Utilization Research)	Winter '12		7	Catalino Blanche
Rangeland Research Program	Spring '12		2	J. Dobrowolski
Capacity Programs: McIntire Stennis Cooperative Forestry Program RREA and RREA National Focus Funds	2/1/2012, 06/01/2012, and 3/1/2012, respectively	04/15/2012, 09/15/2012, and 4/19/2012	165	Catalino Blanche, Eric Norland, and J. Dobrowolski

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Questions?

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