

## Cornell Center for a Sustainable Future



## CCSF Mission

Create applicable solutions to global sustainability problems

- Establish linkages on campus to enhance Cornell research
- Promote partnerships with government, foundations, industry, NGOs
- Educate the leaders of tomorrow by assisting the creation of new courses addressing a sustainable future

## Linkages

- Over 300 faculty and ~ 50 centers on campus are active in sustainability research – linking these initiatives is critical
- Position us to respond to RFPs requiring large-scale collaboration
- Strengthen our impact arising from broad interdisciplinary approaches

## Partnerships



- Provide a point of contact for those outside Cornell wishing to establish connections
- Heighten visibility and increase appreciation of the wide range of sustainability research here

## Center Origins

- October 2004 State of the University address President Jeffrey Lehman's follow-up to his "Call to Engagement" ⇒
- Provost's Task Force on "Sustainability in the Age of Development" 12 faculty from 5 Colleges + Johnson School, Law School, and the Division of Nutrition. Report March, 2006
- Follow-up Implementation Committee appointed by Provost Spring 2007, report June 2007
- CCSF authorized Fall 2007 following the recommendations of the original Task Force

## Initial Center Themes

- Focus on three interconnected themes:
  - Energy - New Sources, New Conversion Systems, Infrastructure, Efficiency, Water, Global Climate Change, Mitigation, New Businesses, ...
  - Environment - Biodiversity, Water, Resource Management, Agriculture, Buildings to Cities, ...
  - Economic Development - Poverty, Social justice, Water and Food Systems, Infrastructure, Institutions, Education, ...
- Campus-wide:
  - Agriculture, business, economics, engineering, medicine, policy, physical sciences, life sciences, and social sciences

## Connection to College Energy Institute

- 2004 College Report/White Paper on Energy and its Environmental Impacts preceded University sustainability initiative
- Recommended establishment of an Energy Institute in the College and suggested how this would be connected to a broader university sustainability structure.
- The CCSF will support College Institute

## CCSF is a new Cornell model

- An umbrella support organization. It will not displace existing centers or institutes. It will not manage research or any academic instruction - that will remain with existing units.
- It is University wide with participants from most Colleges: Engineering, A&S, CALS, AAP, Johnson School, Human Ecology, Vet Medicine
- First year funding, \$3M total, \$1.65M for programs, comes from internal Cornell funds including donor and general funds - in future years from directed donor endowment and gifts, and support from external partners

## How CCSF plans to work towards its goals

1. Seed grants to stimulate new team research. Most funding will be competitive, with some jump starting of proposal teams.
2. Facilitate communication both internally & externally (includes workshops and conferences).
3. Build external partnerships and investment.
4. Foster creative new educational programs by supporting new course development (TA's, faculty released time)
5. Outreach to promote public understanding of the nature of sustainability
6. Engage, as required, with academic units in the hiring of faculty who will amplify Cornell's contributions to sustainable solutions.

Focus in the first few months will be on items 1-3.

## Seed funding: "Academic Venture Fund"

- RFPs expected to be issued in May. They must not be fundable through normal funding channels. Favor
  - Proposals with high and preferably early (5-10 years) impact potential.
  - Involve collaboration across (preferably disparate) disciplinary lines
- Limited time 6 mos. - 2 years. Unsuccessful ones will terminate, successful ones will obtain other funding.
- If external proposals are initiated through CCSF, management & oversight will normally be passed other units (Centers, Departments,...)
- Workshops and symposia to define central challenges and critical needs (where are the bottlenecks, currently limiting factors,...).

## Organization

- Director - Frank DiSalvo (C&CB interim)
  - Associate Directors for Center Legs - Energy (Sid Leibovich, MAE, interim); Environment (Anurag Agrawal, EEB); Economic Development (Chris Barrett, AEM)
  - Executive Director - Dr. Helene Schember
  - Partnerships Director - Dr. David Dieterich
- Faculty Advisory Committee (18+)
- External Advisory Committee

## Energy Research Groups

- Biofuel production (NE SunGrant >20)
- Fuel cells (>10, CFCI 8)
- PSERC
- Photovoltaics (18)
- Modeling and computation of energy systems & climate (17)
- Combustion processes (6)
- Wind (5)
- Energy economics and policy (>3)

## Fast tracking

- Prospects for success in competitions for large cooperative grants are increased if the faculty involved have a record of collaboration
- When it is likely that clusters of faculty with specific expertise will be required in forthcoming (known or not) proposal solicitations encourage collaboration NOW

## Example

- DOE/BES Energy Frontiers Research Centers
  - \$100M/yr
  - Each Center, \$2-5M/yr initially for 5 years
  - Multi-investigator, multiple thrust areas, possibly involving with more than one institution
  - Competition expected in FY08, awards in FY09

