

## **Handout for Adaptation Task Force Meeting**

**Purpose:** To give a brief overview of some of the diversity of expertise we have in the UConn system and networks that can be included under the aegis of Climate Change Adaptation Strategies. This list is by no means comprehensive, and no single research program was intentionally excluded.

### **Atmospheric Climate Change Monitoring:**

- computer-generated atmospheric models
- monitoring of GHG emissions
- monitoring of long-term weather trends in vulnerable regions
- environmental meteorology

### **Climate Change Adaptation Strategies:**

- regional think tank participation
- faculty and student research on regional impact and risk mitigation

### **Agricultural Challenges:**

- student research impact on dairy industry
- characterization of GHG and warming effects on plant growth and nutrition
- impact of changing weather patterns
- micro-cloning strategies for crop adaptation of resistant varieties
- pest management strategies
- land-use challenges and planning for agriculture

### **Marine Ecosystems:**

- characterization and monitoring of warming effects and sea level rises in the Long Island Sound
- monitoring of estuaries
- marine fisheries and aquaculture
- global monitoring of marine protected area
- population studies in marine species
- biochemical monitoring of oceans
- carbon sequestration in oceans
- sea level studies
- water circulation and current monitoring

### **Terrestrial Ecosystem Monitoring:**

- biodiversity studies
- pest and invasive species monitoring
- monitoring of indicator species and vulnerable ecosystems
- temperate and tropical forest ecology
- migration patterns of birds and wildlife

- ecological adaptive capacities
- succession modeling
- tree loss estimation, tree species impacts
- habitat fragmentation and loss
- wetlands ecology
- mountain ecology
- geological contribution to impact
- rate of change in terrestrial habitat types

**Economic/ Social Impact:**

- valuing of resources, resource policy
- food policy and food security
- human climate migration impact
- Millennium Development Goal tie-in with climate change
- Feasibility studies for alternative fuel projects and land use policies
- monitoring of local, statewide, and regional health impacts
- epidemiology
- perception of climate change in media and public opinion
- CT state agricultural contributions to economy
- state industry impact studies

**Outreach Programs:**

- CT Sea Grant program
- CT State Cooperative Extension
- NEMO program for statewide outreach
- community programs, educational events
- multitude of collaborations with local and regional municipalities, interest groups, etc.
- many programs working with international consortiums such as CGIAR, IPCC, UNDP, FAO, NSF, USDA, USAID, etc.
- student awareness and volunteer programs
- land use planning
- local resource use planning and allocation
- faculty and staff involved in worldwide climate change policy planning
- UConn collaborative resources and databases such as CESE, CLEAR, C2E2, etc.

