Sustainable Communities

University and Community Partnerships for Sustainability Education Experiences

Professor Jessica Barlow, San Diego State University
Dr. Laura Bloch, Environmental Protection Agency
Professor Daniel Fernandez, California State University, Monterey Bay
One Underlying Issue regarding Higher Education

- Students are trained to become professionals in fields that require experience.
- Often times, cities cannot pursue sustainability-related projects.

CA Dept of Finances
http://www.sco.ca.gov/state_finances_101_state_spending.html
Radically simple SCYP model

- Connect *existing* faculty teaching *existing* courses with *existing* projects to real-world projects that address an individual community’s pressing social, economic, and environmental needs
Educational Partnerships for Innovation in Communities Network (EPIC-N)

- A national network of higher educational institutions adopting the University of Oregon’s Sustainable City Year Program (SCYP) model
  - A dozen current programs,
  - More than a dozen or getting ready to launch
Educational Partnerships for Innovation in Communities Network (EPIC-N)

Currently active programs:
- University of Minnesota
- University of Iowa
- San Diego State
- Penn State
- Earlham College
- University of Texas at Austin
- Texas A&M
- University of Tennessee
- University of Maryland
- Augustana College
- University of Connecticut

Launching 2015-2016:
- Utah State University
- Arizona State
- University of Colorado, Denver

Programs in progress:
- California State University, Chico
- University of Maine and consortium
- Iowa State
- University of North Carolina, Greensboro
- College of New Jersey
- Technion Israel Institute of Technology
- California State University, Monterey Bay
- CUNY Hunter College
Sustainability of the SCYP model

City partner usually pays a fee that supports the program staffing and operations
Sustainability of the SCYP Model

Deliverables to the city are in the form of presentations and professionally-prepared reports.
Sustainability of the SCYP Model

Relationship tends to energize the city staff, the university students, and the involved faculty
And....

University administration on participating campuses tend to extol the program’s virtues
Impact of the SCYP model

- **City partners**: Research, designs, solutions, and recommendations based on current research/best practices
- **Faculty**: new research/professional connections and more meaningful teaching experiences
- **Students**: real world experiences to enhance critical thinking and problem solving, opportunities for internships and jobs
- **All**: positive publicity
Today

- We present a functioning program at San Diego State University.
- An incipient program starting at California State University, Monterey Bay
- Enthusiastic support and collaboration from the Environmental Protection Agency!
Partnership with National City
Campus Impact: Disciplines from every college

- anthropology
- audiology
- business of craft beer
- child and family development
- city planning
- civil engineering
- communication
- construction engineering
- exercise and nutrition science
- geography
- graphic design
- homeland security
- international securities and conflict resolution
- management information systems
- marketing
- mechanical engineering
- political science
- professional studies and fine arts
- public administration
- public health
- real estate and finance
- recreation and tourism management
- speech, language, and hearing sciences
Community Impact:

A common focus on one city

<table>
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<th>Hours of Effort</th>
<th>Students</th>
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23 disciplines, 18 projects, 2 years, 1 university, 1 city
Sample projects

Highlights from the National City Partnership
Marina District Redevelopment

- Focus on tourism, land use, and space utilization for commercial and other uses

  - Disciplines: geography, recreation and tourism management, and real estate & finance
Homelessness Task Force

- Work with Task Force to focus on homelessness and policy alternatives
  - Discipline: political science
Wayfinding System

- Tailored to specific National City districts
  - Disciplines: geography, graphic design
Property Management Plan

- Determined highest and best use for City’s assets for development of a Long-Range Property Management Plan to be submitted to the State
  
  Disciplines: finance, real estate, sustainability, geography, and city planning
Downtown “Green Streets”

- Redesigned a street to redirect, slow, and relieve traffic flow; enhance walkability; address stormwater runoff; and create landscaping improvements featuring drought-tolerant plants

  - Discipline: civil engineering
Industry and Freeway Impact Mitigation

- Analysis of impacts on quality of life related to noise and air pollution and suggestions for mitigation
  - Disciplines: audiology, public health

Sampling locations for air particulates
Locations for noise level measurements
Pedestrian and bicycle plans
Craft Beer Industry

- Identify ideal locations for brewery, tasting rooms, and distribution of local craft beer
- Determine policy options that impact craft brewing presence in the city

Disciplines: marketing, professional certificate in the business of craft beer, public administration
Public Records Act (PRA)

- Review PRA fulfillment procedures across San Diego County
- Develop recommendations for improving efficiency of National City policy
  - Disciplines: public administration and criminal justice
Emergency Operations Plan

- Development of annexes to the city’s Emergency Operations Plan:
  - Access and functional needs management
  - Climate change management
  - Continuity of operations
  - Debris management
  - Donations management
  - Mass point of distribution
  - Discipline: homeland security
Paradise Creek Improvements

- Increase pedestrian connectivity
- Develop cost-effective solutions to minimize impacts from flooding

- Discipline: civil engineering
Strategic Planning

- Help develop a Strength, Weakness, Opportunity, Threat analysis for each department in the city
- Help incorporate SWOT analyses into overall strategic plan

 Discipline: Public administration
Campus-wide engagement and new opportunities

A common focus
Engagement with Community Services

- Kimball Senior Center, Senior Nutrition Center, National City Public Library, Casa de Salud Youth Center

- Disciplines: city planning; exercise and nutrition science; graphic design; speech, language, and hearing sciences
Collaboration with Local Organizations

- A Reason to Survive
- Big B’s Market & Deli
- Olivewood Gardens & Learning Center
- Head Start
- National City Historical Society
- Ocean Connectors
- San Diego County
Strings Program with ARTS

- Violin lessons provided to kids in the National City community at A Reason To Survive
- Supported by the Aztec Parents Fund
  - Discipline: music
Local, Regional, and National Recognition and Connections

- Environmental Protection Agency (San Diego, Region 9, and national)
- San Diego Foundation
- San Diego Regional Climate Collaborative
- San Diego Association of Governments
Opportunities for Students

- 100+ student symposium presenters
- 40+ students hired as project managers, report writers, and interns
- 4 groups of students have presented at City Council meetings
- 2 graduates now have jobs with National City
New Program Promotes Sustainability in Local Community

By Allison Sampsie-Nelson

Fifteen university classes design, city planning, and architecture students are dedicated to assisting the community in the National City project. The 2013-14 academic year is a year of partnerships with a national effort to create a more sustainable city.

Course projects are tied to the National City project and developed by various groups. The students are working on various aspects of sustainability, including access and redevelopment. The project includes the development of new designs and solutions that promote sustainability and quality of life in the city while studying how their academic work helps meet the city's goals.

While the students have since changed to the Sage Project, the goals remain the same — to help the public good by focusing on the needs of the local community. As the program enters its final year, the community is invited to a symposium that will showcase the work of students, faculty, and staff.

Through the project, more than 800 students have worked with city officials in National City on creative ideas, design solutions, and management of sustainable solutions. The project involves the development of a sustainable city, and it is expected that the students will continue to work on the project for the future.
New partnership with the City of Santee

Looking ahead: 2015-16
Proposed Projects

- 10 highly interdisciplinary projects with opportunities for faculty and students across the campus, including:
  - New civic center complex
  - Iconic pedestrian bridge
  - Water quality enhancement
  - City branding
  - Homelessness intervention

- Each addresses a social, economic, and/or environmental goal for the community
The Future

- Continue partnership with National City in through August 2015 (and beyond!)
- Begin partnership with Santee for 2015-2016

plus continue to...

- Expand and strengthen community involvement!
- Enhance students’ educational experiences!
Now, for an up and coming program...
Sustainable City Year Program at CSUMB!
A Little Background on CSUMB

- Founded 1994 (after closing of Fort Ord)
Campus Vision Statement

Emphasis on:

- Social justice
- Service Learning
- Diversity and multiculturalism
- Interdisciplinarity
SCYP Timeline at CSUMB (how did we get it to happen)

- April 2014  Attendance at yearly SCYP conference at U. Oregon in Portland, OR.
April – December 2014

- Got excited
- Had many meetings
- Sent out emails to Deans, Chairs, likely faculty.
- Visited several departments
- Marketed through as many channels as possible
- Engaged student leaders and students in my and others’ classes
Timeline for Preparation

- January 2015 – Student petition circulated to garner interest (by a student)
Project Description

PETITION FOR INTRODUCTION OF Sustainable Cities Initiative PROGRAM AT CSUMB

The students of California State University Monterey Bay are acutely aware of the importance of the Sustainable Cities Initiative program in a campus-wide program that enhances the development of professional skills of students over the needs of local communities in the name of sustainability.

As part of the University’s commitment to sustainability, partnerships, and the community, the Sustainable Cities Initiative will bring together the region’s talented environmental professionals in delivering sustainability-focused partnerships.

The Sustainable Cities Initiative is designed to address environmental needs of a regional city by utilizing university students with varying course work and school-specific interests and sustainability-related issues. Partnerships connected with this initiative are designed to serve a broader, but not limited to human health, natural sciences, and engineering. A variety of activities is arranged amount of funding to cover costs such as travel and materials for matched classes and the professors willing to teach on the project. By focusing on university education with partnerships, the project’s overall goal is to provide a model of small-scale projects for the partner cities; each project will address a single degree of integration and in which gives students the opportunity to work on practical, real-life projects with measurable impacts at the end of each session. Students are required to provide a final project model that can be used by the communities as well as for continued work. The work generated in each class can lead to leadership or engagement opportunities for students with particular cities. CSUMB is well situated to enable cities to reach their sustainability goals in an affordable manner while providing students with professional-level training through a service learning experience.

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SCI Sustainable Cities Initiative
Timeline Continued

- February 2015 - About 20 city managers’ offices contacted by phone and email.

- February 2015 - 8th annual FOCUS event with a theme of Partnernships in Sustainability
Strong panel presence from City of Salinas, notably their Director of Public Works, Mr. Gary Petersen, and their Transportation Planner, Mr. James Serrano.
Having Dr. Capra as a presenter was a draw to bringing in a city presence.

Please join us for this free event to hear world-renown scientist, author, educator and activist Dr. Fritjof Capra present at the Focus on Community and University Sustainability (FOCUS) event with the theme “Partnerships in Sustainability.”

**Event Schedule**

4:45 pm  Welcome and introductions.
5:00 pm Choose breakout group of interest and move to desired location.
- Sustainable Practices at CSU Monterey Bay –Conference Rooms
- The Sustainable Cities Year Program (SCYP) – Living Room
6:00 pm  Breakout groups end – time to eat dinner on your own and network.
7:00 pm  Keynote Presentation – Dr. Fritjof Capra.
8:15 pm book signing.
Request for Proposals was given to city representatives at the FOCUS event.
Proposals were Solicited for a March 31 Submission

Two proposals were submitted. One was from the City of Marina and the other from the City of Salinas.
Chosen City Announced by May 1

Salinas selected as pioneer city for the first year.
- Salinas is the county seat
- Population of about 150,000
- Known for agriculture, has a rich history, and home of Steinbeck
- About 75% of the population is Latino - though portions of its communities are very diverse.
Project Ideas Submitted by Salinas

Project 1: Communications Plan

Develop a comprehensive communication and outreach plan to promote the development of Salinas. Project must have some sustainability theme or flavor, such as promoting energy awareness, reduced water use, education of health issues to disadvantaged populations, reducing solid waste, enhancing livability etc.
Project 2: Implementation of Transportation Elements

Design transportation projects related to bicycle, mass transit and pedestrian movement on surface streets
Project 3: Public Art and Way Finding

Develop city-wide policies for the public display of art. Artistic or policy theme must have some element of sustainability associated with it.
Project 4: Development of a High Speed Internet Access Downtown

Create and implement proposals for the installation of a "dark fiber" ring to serve downtown Salinas. Projects need to address some aspect of sustainability, such as providing better information on public transportation, electric vehicle car charging stations, etc.
Project 5: Development of GIS Layers

Develop GIS layers related to the sustainable development of downtown Salinas
Successes and Challenges

- Widely communicated
- Enthusiastic city representatives
  - Timeline
- Small initial faculty cohort
  - Funding support
EPA Interest and Role
Regional Composition

- Four States: Arizona, California, Hawaii, Nevada
- 146 Tribes: 50% of all Indian Land
- Pacific Islands: American Samoa, Guam, Northern Mariana Islands,
EPA’s Mission: Protect Human Health and the Environment

- Collaborate with our States
  - Delegate programs
  - Oversee State implementation
- Regulate
- Fund
- Enforce

- Voluntary Partnerships
- Technical Support
- Best Practices
- Convene Key Partners
- Networking
- Recognition
EPA Interest in Campus Community Sustainability Partnerships (CCSPs)

- Committed to improving community health, sustainability, and resilience
  - E.g. EPA brownfields assessment and planning efforts help city redevelop endeavors; Technical assistance through Building Blocks Program

- Realize need to encourage creative solutions and partnerships

- Recognize unique position of colleges and universities to partner with surrounding communities

- Interested in catalyzing Campus-Community Sustainability Partnerships through a proven, adaptable, and sustainable model
EPA Role in CCSPs

- Catalyze CCSP Framework
  - Workshops to educate institutions of higher education and community representatives
  - Link with other EPA programs and initiatives
  - Information sharing with federal partners, states, local governments, tribes, industry, foundations, non-governmental organizations

- Share EPA Strategies and Tools
Examples of EPA Tools of Interest

EnviroAtlas:
Allows users to explore the many benefits people receive from nature, often referred to as ecosystem services. [http://enviroatlas.epa.gov/enviroatlas/](http://enviroatlas.epa.gov/enviroatlas/)

National Stormwater Calculator:
Estimates the annual amount of rainwater and frequency of runoff from a specific site anywhere in the U.S. based on local soil conditions, land cover, and historic rainfall records. [http://www2.epa.gov/water-research/national-stormwater-calculator](http://www2.epa.gov/water-research/national-stormwater-calculator)

Watershed Management Optimization Support Tool (WMOST):
Tool to screen a wide-range of potential water resource management options for cost-effectiveness and environmental and economic sustainability. [http://www2.epa.gov/exposure-assessment-models/wmost](http://www2.epa.gov/exposure-assessment-models/wmost)
Questions??
Now, your turn! Take a couple of minutes and consider the following. Write some of your thoughts.

- Could you envision such a program on your campus or at a campus near you?
- What would it take to make it happen?
- What are some projects you could envision?
- Whom could you recruit to work with you?
- What challenges would you encounter?
Small Groups

- Break into small groups of 3-4 people and give each person about 3-5 minutes to discuss their thoughts with the group.
- We will bring everyone back in 15 minutes to collect some ideas you produce.