

Annual Report to the W.K. Kellogg Foundation 2006-07

Submitted by:
University of California, Davis
College of Agricultural and Environmental Sciences

W.K. Kellogg Endowed Chair in Sustainable Food Systems
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Project Summary

Our agricultural communities face critical economic, environmental, and social challenges. A vibrant agricultural economy is important for ensuring supplies of good food, supporting rural communities, and maintaining regional economies. Good food and healthy ecosystems, in turn, are important for our health and quality of life.

UC Davis founded the Agricultural Sustainability Institute (ASI) to coordinate and build upon UC Davis' programs that address specific facets of these challenges. This will lead not only to an expansion of relevant research, teaching, and engagement, but also to more efficient application of the university's energies to solve these, and other, complex problems facing California and the nation in an increasingly global economy.

The W.K. Kellogg Endowed Chair in Sustainable Food Systems provides leadership as director of the UC Davis campus Agricultural Sustainability Institute and the statewide UC Sustainable Agriculture Research and Education Program (SAREP). The holder of this chair leverages these programs along with research and teaching activities to foster a safe, healthy, and accessible food supply for Californians. Building on an additional grant from the Foundation, the Chair also applies UC Davis' resources toward creating a national collaborative network of leaders in the field of sustainability and conducting a National Symposium on Sustainable Agriculture and Food Systems annually, beginning in Fall 2008.

We are pleased to report that in FY 2007, UC Davis successfully recruited Dr. Thomas P. Tomich as inaugural holder of W.K. Kellogg Endowed Chair in Sustainable Food Systems and as founding director of ASI. Dr. Tomich assumed his new responsibilities on 2 January 2007 and in only a few months has made significant progress as leader of ASI, SAREP, and affiliated programs.

Progress Toward Goals

Is the holder of this Endowed Chair fulfilling all activities specific to the Endowed Chair as designated by the donor and approved by the university?

Yes, Dr. Tomich is fulfilling all activities expected. The detail of his activities to date is outlined in the following sections. During these initial months, he has been connecting with internal and external stakeholders and has put in place important channels for consultation and communication, both internally and externally.

He has begun a participatory process to establish top priorities for the ASI and is developing a statement of principles for the institute. Many of these contacts are informal, face-to-face interactions with stakeholders or with colleagues on campus. But he also has been a highly-visible participant in a range of events. In his first six months, he will make presentations at 25 outreach and public service events to audiences totaling well over 700 external stakeholders, including, among others, young people, farmers and ranchers, commodity groups, philanthropists, public officials, social activists, environmental advocates, reporters, corporate executives, 'celebrity chefs,' and the press. He has made visits to consult colleagues working in sustainable agriculture at UC Berkeley, UC Riverside, UC Santa Cruz, and Stanford University.

Dr. Tomich also has spoken at 14 professional events, including a major address on "University Education for Sustainability" to the President's Symposium of the American Chemical Society. Through these professional presentations, he has reached approximately 1500 colleagues on the topic of agriculture and sustainable food systems. He has been interviewed on two radio programs and by the press and also has delivered guest lectures for 3 courses on campus, involving approximately 70 UC Davis students (both graduates and undergraduates).

In conjunction with the W.K. Kellogg Foundation's annual Food and Society meeting in April, Dr. Tomich collaborated with colleagues from the Leopold Center at Iowa State University to convene a gathering of academic leaders to begin planning the National Symposium. That gathering provided opportunities to assess the need for ongoing gatherings of leaders in sustainability and to begin to identify the leadership team for the national symposia and an organizing committee for the inaugural National Symposium.

Is the holder of this Endowed Chair providing intellectual leadership on the campus and nationally to the sustainable agriculture and food systems movement?

Yes, California state agencies (such as the California Department of Food and Agriculture, the Department of Pesticide Regulation, and the State Resources Agency) and leaders, including Secretary for Agriculture A.G. Kawamura, have turned to Dr. Tomich as a resource. Dr. Tomich has spoken at 14 professional events. In addition to his address to the national meeting of the American Chemical Society, he has delivered invited keynote addresses for the Centennial of the UC Riverside Citrus Research Station, the UC Berkeley "Agriculture at the Metro Edge" Symposium, the Biologically Integrated Farming Systems Working Group, and the UC Communities and Sustainability Conference.

Dr. Tomich also is providing leadership on campus. As director of the statewide Sustainable Agriculture Research and Education Program (SAREP) he has supported a seed grant program to promote innovative marketing strategies within the system by UC Extension Specialists and Farm Advisors. In his role as Principal Investigator for the UC Davis Long Term Research on Agricultural Systems (LTRAS), he has initiated a faculty dialog to refresh the agenda for long-term agroecological research and has launched a small grants program for graduate student research at the LTRAS facility. He also serves as principal investigator for SAREP's Biologically Integrated Farming Systems (BIFS) table grape project in the Southern San Joaquin Valley. He is co-principle investigator on a collaborative research project on energy intensity in the food system (in collaboration with the UC Davis Energy Efficiency Center and the Bon Appetit Management Company). And he has catalyzed and supported faculty discussions and planning processes for new initiatives on the broad implications of climate change and of nitrogen pollution for agriculture and the food system.

Faculty across UC Davis already see Dr. Tomich as a resource and have asked him to represent food and agricultural perspectives at meetings focused broadly on energy efficiency and sustainability.

Dr. Tomich also is taking a leading role in efforts to establish a new undergraduate major in sustainable agriculture. This includes a campus initiative to recruit 8 new faculty members in sustainable agriculture who will have primary appointments in existing departments, but who also will be ASI affiliates. Two of these positions (including Tomich and an assistant professor in agroecology) already have been filled and a third recruitment in plant pathology was completed last year. Since joining UC Davis in January, Tomich has served on three faculty search committees (sustainability and society; economics of sustainability; and an endowed chair in soil science) and will be a member of two more that are planned for the coming months (pollination ecology and an endowed chair in animal science). Dr. Tomich also has been active in the development of course descriptions and the implementation plan for the new major.

Is the holder of this Endowed Chair making progress in scholarly activities, teaching, and university and public service expected from faculty at the same academic rank?

Dr. Tomich holds appointments as a full professor in two academic departments of the UC Davis College of Agricultural and Environmental Sciences: Human and Community Development and Environmental Science and Policy. He is a member of the UC Davis graduate groups in Community Development and in Geography and is preparing to join the Graduate Group in Ecology.

He is making progress in both teaching and scholarly activity as would be expected by a faculty member of his rank. His main teaching responsibilities will be in the undergraduate major in agricultural sustainability, which the college hopes to launch in the 2008/2009 academic year. In the meantime, he is working with a student group to develop a graduate-level seminar on agroecosystem assessment planned for Spring Quarter 2007/2008 that will also contribute to development of course materials for the undergraduate major.

Dr. Tomich also is making progress in establishing his new research program. He currently is working with one graduate research assistant on an invited review of literature on human-environment interactions. He is supervising a senior research associate and a graduate research assistant working on a literature review of application of life cycle analysis methods to energy use in agriculture and the food system. A third graduate research assistant will begin work with him this summer on environmental, social and economic indicators. And he is recruiting another student assistant to conduct a meta-analysis of the large number of participatory visioning exercises for California's agriculture and food system as an input to the ASI+SAREP strategic planning process. Finally, he is collaborating with colleagues at Harvard University in preparation of a manuscript on comparative lessons of experience in integrative science.

What progress has been made toward identifying the principles and practices that contribute to sustainability of agricultural and natural resource systems?

In these first months, Dr. Tomich appropriately has focused on assessing existing capabilities and establishing new initiatives that will be needed to produce useful, science-based contributions in this area. He is employing a broad, systems approach to create an appropriate conceptual framework for this challenging goal. That framework will be used over the coming months to organize input from ongoing stakeholder consultations, as a basis for assessing priorities in strategic planning, and as a foundation for a planned initiative to establish ASI and SAREP as a leading player in development of metrics and indicators of the various dimensions of sustainability.

What progress has been made toward establishing communication channels that will permit a meaningful role for stakeholders in identifying and helping to find solutions to problems relating to sustainability?

Dr. Tomich has tapped into campus and personal networks to establish relationships with individuals interested in the sustainability of food systems. He also has served informally as an advisor to key individuals and has helped connect decision makers with relevant experts at UC Davis and beyond.

Tomich has made it a priority to travel throughout the state meeting with key individuals and seeking their advice and feedback on his vision for ASI and SAREP. Because of this commitment, he has been exceptionally successful at reaching out to stakeholders and establishing communication with key leaders across a range of sectors, as described in previous sections. During his initial four months of activity, he has taken an exploratory approach, endeavoring to engage with as many different types of stakeholders as possible. Building on insights from these interactions, he will be institutionalizing regular consultations with a full range of stakeholder groups, both through the creation of advisory boards but also through routine interaction in a variety of venues. Dr. Tomich is in the process of recruiting a highly-qualified senior consultant who will work with him over the next six months to manage the intensive consultations during this start-up phase, to develop a strategic approach to engagement and to put mechanisms in place to ensure effective stakeholder input into the future.

As its first public event, ASI hosted the Roots of Change (ROC) Fund's stakeholder consultation on the UC Davis campus in March to solicit a further round of stakeholder feedback on ROC's vision and plans to create a sustainable food and farming system in California by the year 2030. ROC is a collaborative effort involving business, government, non-governmental organizations, foundations, and individuals (rocfund.org) and its stakeholder base is virtually identical to ASI. We foresee close collaboration between ASI+SAREP and ROC over the years to come in a variety of activities, including stakeholder consultation and strategic planning.

Here, it also may be worth noting that through Dr. Tomich's leadership, there has been important progress on team-building within and across ASI, SAREP, and affiliates. As one of his first acts, Dr. Tomich commissioned UC Davis-based organizational consultants to conduct diagnostic interviews with various staff members and internal teams. Findings of those consultants identified the need to invest in cohesion across the various units (ASI, SAREP, and others). A milestone in this process was a February "carousel" event facilitated by Dr. Tomich in which each of the ASI units, SAREP and the Students for Sustainable Agriculture (SSA) presented their activities and engaged in small group discussions. Another outcome was creation of an Agricultural Sustainability Alliance Project (ASAP) steering committee, comprising representatives of all the internal units concerned and SSA, to guide the processes of team building, external consultation, and strategic planning. When the strategic planning (and attendant organizational design) process is complete, it is anticipated that this ASAP steering committee will become an "Agricultural Sustainability Council," serving as an internal advisory committee to the Director.

What progress has been made toward disseminating information to assist decision makers, scientists, and practitioners to improve the sustainability of the food system?

Sharing information is at the core of UC Davis, ASI, and SAREP and this longstanding commitment is a great advantage in building dissemination programs for ASI and enhancing SAREP's efforts. The established programs of ASI and SAREP each disseminate a variety of information about sustainable agriculture and food systems, collectively spanning a range of audiences including elementary school children, government leaders, farmers, ranchers, farm workers, researchers, educators, industry professionals, consumers, community organizations and non-profits.

ASI affiliates' websites include:

SAREP <http://sarep.ucdavis.edu/>

UCD Student Farm <http://studentfarm.ucdavis.edu/>

UCD Sustainable Agriculture Farming Systems (SAFS) <http://safs.ucdavis.edu/>

UCD Long Term Research on Agricultural Systems (LTRAS)

<http://ltras.ucdavis.edu/>

UCD's California Food and Fiber Futures (CF3) <http://cf3.caes.ucdavis.edu>

A prototype ASI website has been launched (<http://asi.ucdavis.edu>) on a provisional basis. Discussions have been initiated with website designers to develop this prototype into a full-fledged portal that will encompass the affiliates' websites.

In his role as SAREP Director, Dr. Tomich has written a "From the Director" column in each of the two most recent SAREP "Sustainable Agriculture" newsletters and he intends to continue that practice going forward. In the months ahead, a communications strategy will be developed for ASI and its affiliates as part of the ongoing strategic planning process, including a review of existing websites, newsletters, and other publications with the intent of streamlining and focusing communication products for specific stakeholder audiences.

What progress has been made toward assisting California's rural and urban communities and policy makers to understand and implement sustainable food and agricultural systems?

In this initial stage, emphasis has been on identifying key groups and individuals, building rapport, and listening to concerns and suggestions from different groups.

What progress has been made toward educating students in the principles and practices of sustainability, exposing them to a variety of viewpoints and educational methods?

The most noteworthy progress has been toward the establishment of the new undergraduate major in sustainable agriculture, described above. Dr. Tomich's arrival also energized the students on campus who already had formed a very large and effective organization called "Students for Sustainable Agriculture" (SSA). In the past six months, SSA leadership has proposed a strategy to ensure student input to ASI activities and to promote faculty-student interaction. SSA members have worked with Dr. Tomich on the formation of a student advisory committee to the ASI and students now routinely participate in the ASI strategic planning process. Social and professional events are being planned to bring students and faculty together around sustainability issues. SSA members are also involved in planning a graduate seminar to be offered by Dr. Tomich during the 2007/08 academic year.

Future Plans

A. List the project and evaluation activities you intend to pursue during the next project year for each intended outcome and note whether and how they involve modifications.

Strategic planning activities – and the associated stakeholder consultations – for ASI (including SAREP) will intensify over the coming months and are expected to conclude by the end of 2007, culminating in an inaugural joint advisory board meeting tentatively planned for January 2008. Specific activities planned in that process include:

June 2007: recruitment of part-time (40%) senior consultant for six months (roughly June to November) to design and coordinate intensive stakeholder consultations, assist Dr. Tomich and his team in conducting those consultations and in eliciting views from a full range of stakeholders as input to ASI's strategic plan. Formation of team (professional and support staff) to backstop the consultant.

August 1-2, 2007: first staff retreat (ASI + SAREP + affiliates + external resource people) to consider input received so far from stakeholders on key thematic issues and to revise drafts of:

- Vision -- In what ways do we want the world to adapt or change? Conversely, where do we want to enhance resilience?
- Mission -- What is our contribution to achieving that vision?
- Values -- Why do we do what we do?
- Principles -- How do we operate? Mechanisms to assure credibility, legitimacy, usefulness.

These drafts then will be shared with stakeholders for further input as part of the ongoing consultations.

September 2007: second staff retreat (ASI + SAREP + affiliates + external resource people) to consider additional input received from stakeholders, to update vision, mission, values, and principles based on that input, and to move onto the next steps in drafting the strategic plan:

- Strategic mapping -- How are we collectively going to change the world over the long term? Big issues and opportunities, impact pathways, strategic partnerships
- Goals, activities and outputs -- Specific goals and strategies for research, education, communication, engagement and accountability; in each case, what do we hope to learn (hypotheses to be tested)
- Organizational structure and functions -- What is the purpose of each 'permanent' unit? How will it contribute to goals and priority activities? How do they all fit together?
- Resource requirements -- people, funding, facilities, etc. needed to achieve change.

As before, these drafts then will be shared with stakeholders for further input as part of the ongoing consultations.

October (or November) 2007: a multi-stakeholder meeting for detailed presentation, feedback, and review to develop a final draft of the strategic plan. Because of the complexity and scope of California's food system, participants in this meeting necessarily will be a subset of the stakeholders consulted to date, but the meeting will be designed to provide voice to a wide range of the diversity of California. In addition to finalizing a draft of the strategic plan, this multi-stakeholder meeting also will focus on institutionalizing the ongoing ASI consultation with a range of stakeholders and to establishing mechanisms for public accountability and governance structures to ensure the usefulness and legitimacy of ASI programmatic choices. Proposals for structure and composition of formal ASI advisory boards will be an output of this meeting. Once again, these drafts then will be shared with stakeholders for further input as part of the ongoing consultations.

January 2008 (tentative): Inaugural joint meeting of ASI advisory board(s) and affiliates' advisory committees; ASI strategic plan presented for discussion and possible approval. Activities for the balance of the academic year depend crucially on the outcome of this meeting.

Note: SAREP is due for an external evaluation to commence in late 2007 / early 2008. UC Agriculture and Natural Resources Division leadership have agreed to coordinate the inception of that review of SAREP with the strategic planning process for ASI.

Other events and major activities currently scheduled for the balance of 2007. (All will be held at UC Davis, unless otherwise indicated.)

July 13, 2007. "Climate Change Issues Impacting the California Wine Industry and Other Perennial Crops." A workshop for winegrape growers and other farmers, vintners, public officials and scientists. Sponsored by the UC Davis Robert Mondavi Institute for Wine and Food Science and co-sponsored by ASI (among others).

September 12-13, 2007. "California Agroecosystem Services: Assessment, Valuation and Policy Perspectives." A workshop and policy round table sponsored by ASI, the California Institute for the Study of Specialty Crops, California Polytechnic State University, San Luis Obispo; and the University of California Agricultural Issues Center.

October 2007 (dates tbd). "Life Cycle Analysis of Energy Intensity in Agriculture and the Food System." A three-day international roundtable of scientists. Sponsored by the Agricultural Sustainability Institute, the UC Davis Energy Efficiency Center, and the UC Davis Institute for Transportation Studies.

October 2007 (date tbd). "Sustainability Social." A mixer for sustainable agriculture students and faculty. Sponsored by ASI and organized in collaboration with the Students for Sustainable Agriculture.

November 8-9, 2007 at the University of New Hampshire. Gathering of Sustainability Center Directors, Endowed Chairs, and other Leaders. Sponsored by ASI and organized in collaboration with the University of New Hampshire. The purposes of this meeting are to compare experience across institutions (a deeply felt need among these leaders) and to select a theme and create a planning committee for the inaugural National Symposium on Sustainable Agriculture and Food Systems to be held at UC Davis in Fall 2008 (to coincide with UC Davis' centennial celebrations).

B. What will be done this coming year to increase the likelihood that the project will be self sustaining by the end of the grant period?

Financial sustainability is ensured in the endowment, by design. However, realizing the full potential of this vision requires significant additional human and financial resources.

Currently, priority on building necessary human resources has gone to ensuring that the new faculty members recruited under the College's Agricultural Sustainability Initiative meet both the conventional criteria for academic excellence as well as having the necessary attributes (regarding teamwork, interdisciplinary orientation, sensitivity to users' needs, etc) to contribute to building ASI and providing leadership in its activities. Once recruited, mentoring of the five new junior faculty members also is a priority to ensure they are successful in their career paths.

At the same time, a very large number (approximately 150) of the current faculty members of the College of Agricultural and Environmental Sciences have expressed strong commitment to working on sustainable agriculture. To assist in developing effective strategies for engagement of these faculty who already are on campus, Dr. Tomich has recruited a senior, highly respected colleague, Dr. Howard Ferris, Professor of Nematology, as interim ASI Deputy Director. Dr. Ferris serves on a voluntary basis and has dual (and inter-related) responsibilities for developing innovative strategies for collaboration and for leading a faculty dialogue on new directions in field-based research for agricultural sustainability science.

A results-based fundraising strategy will, of course, be an important output of the strategic planning process. UC Davis has placed a high priority on fundraising for ASI and the College has assigned Ms Melissa Haworth, Director of Major Gifts, to work with Dr. Tomich on developing this fundraising strategy and in identifying

and cultivating opportunities for significant gifts. It is envisioned that this fundraising strategy will comprise efforts to create a program endowment for ASI and to identify other opportunities for major gifts, to enhance the “permanent” budget of SAREP from California state funds, to develop major proposals and capture a few large-scale grants as the basis for programmatic initiatives in key thematic areas prioritized through the strategic planning process and stakeholder consultations, and – where strategically justified – to continue to seek smaller extramural grants as seed funding for pilot initiatives. In addition, there have been some initial discussions to explore the feasibility and desirability of a corporate affiliates program, but more consideration needs to be given to the suitability of that approach for ASI.

C. What indications are there that this project can (or cannot) be adopted elsewhere?

It is too soon to judge the replicability of this particular integrative science approach to “mainstreaming” engagement, research, education, communication, and dissemination on agricultural sustainability and food systems within a major land grant institution. It is worth noting, however, that the initiative has been met with a great deal of enthusiasm internally and has received much attention and interest from external stakeholders.

Dissemination

A. What information or evaluation findings from your project have been made available to the field and how?

Ongoing information and communication activities and plans to consolidate and streamline those efforts were mentioned above. There are no formal evaluation findings to share at this early stage. However, to ensure that ASI and SAREP truly are “learning organizations,” strategies for monitoring, evaluation, and impact assessment will be developed as part of the new strategic plan. There is some existing capacity, particularly in monitoring and evaluation, but it seems likely that additional resources will be needed to expand and institutionalize these important activities.

B. What plans do you have, if any, at this time for disseminating information about your project during the next year and at the conclusion of Foundation funding?

As mentioned above, we expect to produce a new, consolidated communication strategy as part of the ASI strategic plan. In the meantime, the considerable communication and dissemination activities of the various units will continue.