

**UNIVERSITY OF CALIFORNIA DAVIS
AGRICULTURAL SUSTAINABILITY INSTITUTE (ASI)**

STRATEGIC SNAPSHOT AT DECEMBER 2008

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OUR INSTITUTE AT A GLANCE

Our mission is to ensure access to good food and to promote the vitality of agriculture today and for future generations. We do this through integrative research, education, communication and early action on big, emerging issues.

Our vision is a food and agricultural system that:

- ♦ is innovative, adaptive and profitable
- ♦ promotes prosperity and equity for people working in agriculture and the food system and their communities
- ♦ improves the environment and human health
- ♦ provides healthy food for everyone
- ♦ builds awareness and understanding of the food system
- ♦ engages public participation in policy decisions affecting food and agriculture

Thematic areas

Agriculture, Resources, & the Environment: integration of agricultural systems at the farm/ranch and landscape levels.

Food & Society: integration of the food system, linking production, distribution and consumption.

Education & Leadership: integrated programs for sustainability education and leadership - kindergarten through post-graduate, including a **new undergraduate major in Sustainable Agriculture and Food Systems** and support for the **PhD in Agroecology** at UC Davis.

Agroecosystem Assessment for Priority Setting: a crosscutting activity to produce scientifically-validated indicators to benchmark trends in sustainability of California's agriculture and food systems.

Programs and facilities

Sustainable Agriculture Research & Education Program (SAREP)

Russell Ranch Sustainable Agriculture Facility

Student Experimental Farm

Team and associates

- ♦ Director Tom Tomich started January 2007.
- ♦ Deputy Director Kate Scow started January 2008.
- ♦ 19 other full and part-time staff of various programs and projects.
- ♦ 3 postgraduate fellows, 5 graduate student researchers, 3 undergraduate assistantships.
- ♦ 9 new ASI-affiliated professorships in agroecology, sustainability science, sustainability and society, economics of sustainability, plant disease management/soil microbiology, soil science, pollination ecology, invertebrate community ecology, and sustainable animal systems (8 appointments completed, 1 search underway). A further 150 UC Davis faculty self-identified as strongly interested in sustainable agriculture.
- ♦ A distinguished advisory board of 21 leaders, representing diverse stakeholder interests.
- ♦ An expanding network of partners, including UC Davis Students for Sustainable Agriculture, UC Cooperative Extension specialists and farm advisors, and other partners in various sectors.

Current annual budget: approximately \$2 million; campaign underway to increase to \$6 million.

For more information

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EXECUTIVE SUMMARY

To: Inaugural Members, ASI External Advisory Board

From: TP Tomich, Director, ASI & SAREP

Date: 2 December 2008

Re: **Key opportunities and challenges for our institute**

Our inaugural meeting next week will be a milestone in ASI history. I am personally grateful to each of you for your willingness to serve and look forward to working with you as we move forward in shaping the development of our young institute.

Sections I-V of this document are intended to provide a “strategic snapshot” of ASI at this moment in its development and comprise the first complete draft of a strategic plan for ASI. The fluid format, with institutional strengths, weaknesses, opportunities, and challenges woven through the text and highlighted in *blue italics*, was chosen in the hope this can be a living document that will benchmark progress on institutional development as ASI evolves from year to year. The purpose of this memo is to highlight what I see as the main issues for your attention among the many that are covered in this strategic snapshot for 2008.

Our strategic framework. The vision, mission, values, and operational principles in Section I are intended to be distinctive. They were developed collaboratively by ASI staff and some stakeholders during two retreats in 2007 and have been in use since then. We welcome additional comments and suggestions. In particular, we wonder whether you find the ASI mission and vision for change in the world sufficiently clear and compelling.

Institutional assets and organizational change. Fortunately, we are building on significant institutional foundations (Section II) and not starting from scratch. Next week, visits to our Student Experimental Farm and the Russell Ranch Sustainable Agriculture Facility will provide opportunities for detailed discussion. Restructuring of our third major unit, the statewide Sustainable Agriculture Research and Education Program (SAREP), is nearly complete. Decisions to undertake changes were based on our strategic framework and functional analysis of ASI as a whole and of SAREP. A top priority, reflected in our fundraising strategy, is re-launching the SAREP grants program. These grants are a key reason for SAREP’s existence and have played important roles in advancing sustainable agriculture in California and bridging the continuum spanning research, extension, and practical application. Changes at SAREP involved some difficult choices. One SAREP academic coordinator position was closed (due to retirement) and two SAREP analyst positions will be phased out. These three positions

will be replaced with two new SAREP academic coordinator positions to provide scientific leadership for two of our new themes, "Agriculture, Resources and the Environment" and "Food and Society." This is a rare opportunity for academic recruitments for SAREP and should be completed in 2009; we welcome your suggestions and support in that process.

Priority setting. Fulfilling our principles of usefulness and legitimacy of our programs and our commitment to accountability to our stakeholders begins with our priority setting processes (Section III.1). As of today, over 650 stakeholders have completed our on-line survey on sustainability issues and priorities. Those results are being processed and will be available for our meeting. While the scale of response is gratifying, coverage appears to be concentrated within some stakeholder groups. We clearly need a broader repertoire of forms of engagement. Yet, even within this range of respondents, every issue is very important to somebody. Nevertheless, some patterns do emerge and a preliminary look suggests there are parallels with priorities that were identified in an independent participatory process involving staff, leading faculty, and students (Section IV). Taken together, I hope these inputs will help to inform our discussions next week and in the months ahead.

Communication, engagement and fundraising. Strategies for communication and stakeholder engagement (Section III.4) and for fundraising (Section III.5) will be topics of three special sessions next week. It comes as no surprise that the task of reaching out to a complete range of stakeholders is too large for me alone. I look forward to your advice on prioritizing and engaging more effectively with specific groups; for example, should emphasis go to targeting skeptics, nurturing traditional partners, or some combination? Our consultants from Fenton Communications will present their recommendations and work with us to develop a more strategic approach to these communication challenges. Similarly, Melissa Haworth, CA&ES Director of Major Gifts, will present recommendations on a fundraising strategy for ASI and will lead a group in developing an action plan. We are proposing an ambitious campaign to raise a total of \$50 million in ASI endowments and other philanthropic gifts and to increase ASI's total budget by at least \$4 million per year (from \$2 million currently to \$6 million). Despite the dramatic deterioration in financial conditions globally, nationally, and within California in the past few months, I feel we should go ahead, even if more years are required to reach these goals. Do you feel that this goal still is appropriate and realistic?

Creating a vision for success. Success in all these endeavors depends on a compelling vision for ASI as an institution. Section V provides a blank slate for imagining what a center of excellence in research, education, and action on sustainable agriculture and food systems can be. During our meeting, we will engage in imagining a vision of what ASI can become over the coming 7-10 years. Please give this some thought over the next few days and come with your ideas!

BOARD CHAIR'S MESSAGE

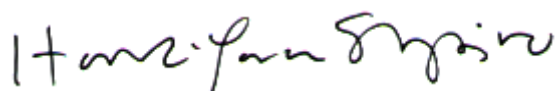
Disruptive Innovation

9 December 2008

It is a pleasure to welcome you to the 1st Agricultural Sustainability Institute External Advisory Board Meeting. The External Advisory Board represents a wide range of views on the pressing issues of agricultural sustainability facing us today. We stand at the forefront of thinking about how to sustain our future, build new economies in agriculture, understand models for influencing environmental policy and be steward's of biodiversity. It will take us collectively down a path that has never been traveled. Not all of us will agree to every decision but each individual's voice will be heard. Throughout this journey we remain committed to the opportunity that is before us today. We will help mentor the Faculty and Staff of the Agricultural Sustainability Institute with our unique perspectives on agriculture, what it means to be the disruptive innovators in the largest agricultural economy in the United States and a change agent around the world by our actions.

ASI's influence will shape the ability of farmers to remain agile in responding to new challenges. We will influence through the External Advisory Board the ethical and complex cultural issues, the theoretical and long-term viewpoints, and political stances, with their practical and very short-term responses on real agricultural sustainability. Today we begin a new experience. We have the good fortune to assist in shaping the future of agricultural sustainability in California. I welcome each of you to this task.

Respectfully,



Howard-Yana Shapiro, PhD
Chair, Agricultural Sustainability Institute External Advisory Board
The University of California, Davis
Director of Plant Science and External Research
Mars, Incorporated

I – STRATEGIC FRAMEWORK

What distinguishes ASI?

The units of ASI will be held together and distinguished by a shared mission, vision, values and operational principles and a passion for excellence in sustainability science that can transform California agriculture and fully realize California's potential for global leadership in research, education, and action for agricultural sustainability.

Overall status: These strategic elements were developed collaboratively by ASI staff and some stakeholders during two retreats in 2007 and have been in use since then. We welcome additional comments and suggestions from advisory board members and other stakeholders. In particular, we wonder whether you find the ASI mission and vision for change in the world sufficiently clear and compelling. During the inaugural meeting, we also plan to engage the advisory board in imaging a vision of what ASI can become over the next 7-10 years.

1. **Our mission** is to ensure access to good food and to promote the vitality of agriculture today and for future generations. We do this through integrative research, education, communication and early action on big, emerging issues.

2. **Our vision** is a food and agricultural system that:

- ♦ is innovative, adaptive and profitable
- ♦ promotes prosperity and equity for people working in agriculture and the food system and their communities
- ♦ provides healthy food for everyone
- ♦ improves the environment and human health
- ♦ builds awareness and understanding of the food system
- ♦ engages public participation in policy decisions affecting food and agriculture

3. **Our core values**: creativity, inclusiveness, integrity, partnership

4. **Our operational principles**

Practicing sustainability: we strive to enact sustainability principles and practices in our own activities.

- ♦ **"Walking the talk"**: we work to use sustainable practices in our own operations and actively strive to embody our core values.
- ♦ **Community**: we embrace and enact the UC Davis Principles of Community in our daily work.
- ♦ **Respect for all**: we affirm the inherent dignity in all people and endeavor to relate to all with respect, fairness and justice.

Legitimacy: we set our priorities and design our programs in response to concerns and aspirations of stakeholders representing the diversity of California

- ♦ **Spanning boundaries:** we serve the entire state, and all segments of agriculture and the food system.
- ♦ **Science in the public interest:** we are committed to transparency in governance and priority setting; to open access to results and information; and to accountability to stakeholders.
- ♦ **Historical awareness:** we recognize the University's historic, current, and potential future roles in shaping agricultural and food systems and their effects on environment and society. We strive to make informed and responsible decisions regarding research, teaching and outreach based on this knowledge.
- ♦ **Seeking consensus, while respecting differences:** our activities employ a common set of ground rules, including respect for different viewpoints.

Usefulness: responsiveness to stakeholders' needs – the broad interests of society as well as needs of specific groups – is key to the relevance of our initiatives and provides the necessary focus on real issues and opportunities.

- ♦ **Communication for impact:** we ensure that input from stakeholders consistently is sought and used effectively and that our products are translated to reach key audiences in forms they can use.
- ♦ **Integration of knowledge:** we actively seek and recognize the value of knowledge embodied in experience on farms and ranches, in communities, in industry, and in policy arenas.
- ♦ **Commitment to experiential learning:** we recognize the value of learning-by-doing and actively seek to integrate practical opportunities in our educational programs, training, and outreach activities.
- ♦ **Creating and sustaining a learning organization:** feedback, monitoring, evaluation, and impact assessment will be embedded in overall design of our activities.

Credibility: we hold ourselves to the highest standards of professional integrity and scientific rigor.

- ♦ **Forward-looking agenda:** we will create and sustain mechanisms to identify and assess emerging opportunities and threats, based on scientific analyses and stakeholder input and informed by global trends.
- ♦ **Broad scope, with multidisciplinary balance:** we integrate economic, environmental, and social dimensions of sustainability.
- ♦ **Scientific integration and synthesis:** our activities span big, inter-linked issues and multiple scales – ranging from molecular to global; past, present, future.
- ♦ **Open inquiry:** we promote critical analysis to challenge 'conventional wisdom' and to expand our understanding of technical, institutional, and policy options using the best natural and social science methods available.

II - INSTITUTIONAL ASSETS

ASI's foundations

II.1. Land Grant Heritage

The College of Agricultural and Environmental Sciences (CA&ES) at UC Davis has a 100 year history of serving agriculture and addressing environmental concerns in California and around the world. In 2006, CA&ES established ASI to focus research, teaching and outreach on the challenges facing agriculture in the coming century. ASI provides a hub that links initiatives and education in sustainable agriculture and food systems across CA&ES departments and divisions, across the University of California, and with other partners across the state. *Status: Issues facing the land grant system in the US include needs to (1) develop and expand research programs and academic curricula to reflect a contemporary view of agriculture and food systems, (2) remove barriers to interdisciplinary research, teaching, and extension, and (3) engage a wide variety of stakeholders to assess their needs and develop priorities to design useful programs and create effective means of communication.*

II.2. Programs and Facilities

(See Appendix 1 for ASI organization chart and Appendix 2 for one-page descriptions of each unit or program)

Sustainable Agriculture Research and Education Program (SAREP) – a statewide program of the University of California with capabilities in grant administration, knowledge management, communication and outreach; recognized as a leader in Biologically Integrated Farming Systems (BIFS). *Status: Program restructuring is nearly complete; top priority is re-launching SAREP grants program. Recommendations from a UC ANR-sponsored 5-year external review are expected in early 2009.*

Russell Ranch Sustainable Agriculture Facility – a 150-acre facility that houses the Long-term Research on Agricultural Systems (LTRAS) and Sustainable Agriculture and Farming Systems (SAFS) projects; the only long-term research facilities for research on sustainability in irrigated agriculture in the Mediterranean climate zones of the world and one of the few facilities of its kind anywhere. *Status: Funding has been below sustainable levels for years. ASI director declared a moratorium on new rotations in January 2008 because of financial and scientific concerns. A Hatch grant helped address deferred maintenance and repairs. Backlog of sample analysis and data management is being tackled; but still in early stages. K Scow is overseeing these efforts and directing development of a new scientific plan that builds on the original vision, but that also re-engages faculty and students, incorporates lessons so far, addresses emerging scientific priorities, restores necessary analytical routines, and institutes state-of-the art data management protocols so this can be a truly global scientific resource.*

Student Farm – provides undergraduate and graduate students with experiential learning including sustainable production practices, applied research and outreach; includes Children's Garden Program for K-12 students and teachers. *Status: Leadership and staff stand ready to scale-up popular programs, but additional funding is needed to realize significant upside potential.*

Bachelor's degree in Sustainable Agriculture and Food Systems – ASI will host a new interdisciplinary undergraduate major, bringing liberal arts and experiential education principles into undergraduate agricultural sustainability education; core courses offered by ASI-affiliates; governed by a committee of department chairs. *Status: First of five core courses was offered fall quarter 2008; three others will be offered by the end of this academic year. Formal proposal of the complete major is pending and approval may take 12-24 months. Current funding formulas are not sufficient to implement this innovative major and additional resources are needed. Grants in 2008 from Columbia and Heller Foundations provide significant startup funding.*

PhD in Agroecology – ASI will support rejuvenation of this established area of emphasis within the top-ranked Ecology Graduate Group. *Status: Enrollments are low; funding for graduate student fellowships can attract new, high-caliber students, who will contribute to ASI research and education activities.*

UC Davis Students for Sustainable Agriculture (SSA) – a campus student group working to promote agricultural and food system sustainability in academic programs and campus operations; includes 10 leading members and 320 members of the community through listserv. *Status: Although not officially part of ASI, SSA's activities include working closely with the ASI director, the director of our Student Farm and other staff to provide input from student perspectives and to facilitate liaison with other students at UC Davis.*

II.3. People

(See Appendix 3 for ASI personnel list)

Twenty-one staff (full- and part-time), including a six-person core support team serving ASI, SAREP and all affiliated facilities and programs. **Three postgraduate fellows** attached to SAREP, Russell Ranch, and the new undergraduate major. **Five graduate student researchers; three undergraduate assistants** (all part-time). *Status: A new organizational structure and functional requirements for ASI, SAREP and affiliated units is based on the strategic framework and thematic areas developed with staff in 2007; as a result of this process, two SAREP analyst positions will be phased out and replaced with two new SAREP academic coordinator positions to lead the "Agriculture, Resources and the Environment" and "Food and Society" thematic areas.*

Nine ASI-affiliated professorships, including Kellogg Chair in Sustainable Food Systems (T Tomich), Boswell Chair in Sustainable Management of Soil Resources (W Horwath), and Sesnon Chair in Sustainable Animal Systems (in recruitment) and other

affiliated faculty in agroecology (J Six), sustainability and society (R Galt), economics of sustainability (P Merel), plant disease management/soil microbiology (J Leveau), invertebrate community ecology (L Yang starting early 2009), and pollination ecology (N Williams starting mid-2009).

II.4. Current annual funding is \$1.96 million;

Of this total, over \$1 million is from CA&ES and UC Division of Agriculture and Natural Resources (ANR), in approximately equal proportions (see Appendix 4 for current financial highlights). These figures do not include salaries of most ASI faculty affiliates.

III – STRATEGIES FOR ACTION

How ASI will work

III.1. Priority Setting and Accountability

ASI is building institutional capacities to look ahead a decade or more to anticipate big issues and to develop and revise a dynamic agenda for sustainability science research, education, and action. By design, ASI's mission and vision for change are too broad to work on all elements at once. Thus, a strategic, proactive approach to priority setting is necessary to create themes and activities that are appropriately focused, that are feasible to pursue with available human, institutional and financial resources, that remain true to ASI values and operational principles, and that result in a cumulative process that enhances science-based understanding and action for sustainable agriculture and food systems. Mechanisms for accountability to ASI's stakeholders are fundamental to ensuring the legitimacy of ASI's evolving agenda and the usefulness of our products. ASI is working to establish and maintain a range of communication channels that will create meaningful roles for stakeholders in identifying sustainability challenges, shaping priorities, collaborating to find practical solutions, and providing feedback on our results.

Engagement with stakeholders

- **External Advisory Board.** The main purposes of our external advisory board are to advise the ASI director on strategic directions and priorities for action and to assist in identifying resources to accomplish our mission. The board also is expected to help ASI maintain and enhance communication channels with diverse stakeholder groups to ensure that ASI programs are directly addressing the needs of specific groups and society as a whole regarding sustainability of agriculture and food systems. To this end, ASI's external advisory board is structured to reflect a wide range of differing perspectives and is drawn from leaders in their respective fields, including farmers and ranchers; agricultural, environmental, and community organizations; food manufacturers and retailers; educators; policymakers; and the media. Student input is represented on this board as well as on internal advisory committees through "Students for Sustainable Agriculture," a campus based organization. This board also serves the functions of SAREP's Program Advisory Committee. The inaugural board will serve for terms of two or three years. Additional board members can be designated as needs and opportunities arise. Board meetings will be convened at least once a year, with other means (e.g., email, conference calls) used as needed to seek advice and input between meetings. A three-person subcommittee of the advisory board, including the board chair, has been established as an executive committee to provide more frequent strategic advice to the director, as needed. *Status: The inaugural board was appointed in 2008 and will have its first meeting on 9-10 December 2008.*

- **Online surveys.** ASI has launched a Web-based survey initiative to provide for large-scale stakeholder input and to create a first-cut for identification of priority issues for sustainable agriculture and food systems in CA. *Status: Over 650 responses have been received. Broadly the results of this initial experiment are encouraging, but there also are limitations as a priority setting tool. Despite the larger than anticipated response, coverage is concentrated within some stakeholder groups, and this survey tool needs to be supplemented by other forms of engagement to ensure legitimacy of our priorities. And even with this limited range, every issue is very important to someone. However, some patterns do emerge when respondents choose their top three issues. This mechanism can provide useful input, but cannot substitute for more intensive deliberations of the external advisory board.*
- **Consultation.** We are experimenting with a number of participatory approaches to consultation, including listening sessions and focus groups, and anticipate experimenting with town hall meetings and social events in the coming year. *Status: From January 2007 to June 2008, the ASI director has averaged at least 3 stakeholder meetings per month, engaging with over 1200 people, including, young people, farmers, ranchers, extensionists, commodity groups, philanthropists, public officials, social and environmental advocates, reporters, corporate executives, chefs, and food industry leaders. But the task of reaching out to a complete range of stakeholders has proven too large for the director alone. It will be useful to explore options for focusing the director's efforts (e.g., targeting skeptics rather than traditional partners) and, possibly, expanding the number of people engaged in leading these consultations.*

Scientific input to priority setting processes

- **Scientific assessment for priority setting.** Scientifically-validated indicators will be developed for use by many stakeholders to benchmark trends in sustainability in California's agriculture and food system. These indicators will reveal where there has been progress toward sustainability and where there are problems; whether there are tradeoffs across sustainability objectives; which strategies and responses can be most effective in addressing problems and balancing tradeoffs; and where knowledge gaps matter most. Creation of the set of indicators also will create capacity to monitor changes, assess risks, and anticipate emerging sustainability challenges and opportunities. In addition to providing the scientific foundation for an operational definition of "sustainability" for California's agriculture and food system, the sets of sustainability indicators will inform ASI priority setting and could contribute to development of agricultural sustainability standards and a long-term strategic vision for the future of California's food system. *Status: A cross-cutting research activity is being developed on sustainability indicators, entitled "California Agroecosystem Assessment," and is designed to produce metrics to benchmark agricultural and food system sustainability in California. T Tomich's Hatch project proposal has been approved by the USDA. A doctoral seminar on ecosystem assessment methods was launched spring 2008 and will be offered annually to create a cadre of graduate*

students with assessment expertise. Activities will accelerate when the two SAREP Academic Coordinators are recruited and if the Packard Foundation Anchor Grant is funded (see Section IV.1 below).

- **Monitoring, evaluation, and impact assessment.** To establish an adaptive, learning organization that can effectively incorporate lessons from experience, ASI needs to develop, implement, and institutionalize processes that monitor and evaluate the quantity and quality of our outputs and that assesses outcomes and impacts on our goals. *Status: Some relevant mechanisms are in place in SAREP, but much more needs to be done over the years ahead to create a learning organization.*
- **International board of science advisors.** To ensure that ASI's agenda is on the cutting edge of sustainability science, experts in this field have suggested that ASI institutionalize periodic input (perhaps every 2-3 years) to the director from a network of international scientific leaders. *Status: Thanks to the Packard Foundation, input of this type was obtained in development of a major proposal; that experience proved very valuable and suggests this should be developed further in the future.*

III.2. Interdisciplinary, integrative activities

ASI will lead and manage interdisciplinary, integrative activities that cannot be undertaken effectively within academic departments. ASI will focus and integrate research, education, communication and engagement activities across its evolving agenda and update and adapt these activities as understanding develops in all dimensions of sustainability of agriculture and the food system—plant and animal science, environmental and natural resource stewardship, social and economic issues.

- **Research.** ASI assembles and coordinates interdisciplinary teams to design, seek funding, and implement major sustainability science projects, hosted and managed by ASI. These research projects have the primary goal of identifying scientific principles and practices that enhance sustainability of agriculture and the food system. Priorities include (a) identification of emerging, scientifically-valid innovations and help move them from the margins to the mainstream, (b) coordination and support for long-term research, and (c) knowledge management to ensure that research methods, protocols, and results are archived, synthesized and made available for use by other researchers. *Status: See sections IV.1 and IV.2.*
- **Education.** ASI supports programs to educate students of any age, professionals, and the public regarding science-based sustainability principles and practices, exposing them to a variety of ideas, practical experiences, and divergent viewpoints on questions that remain controversial. *Status: See section IV.3.*
- **Grantmaking.** SAREP will refocus its activities on grants for agricultural sustainability and food system research and education and on information dissemination. These grants may take a variety of forms, including (but not limited to) both competitive grants and targeted "academic venture capital" grants for new initiatives. *Status: For*

several years, lack of funds has precluded an effective grant program. As a result, current problems include both lack of sufficient size to attract attention and unreliability from year to year, which also affects the number and quality of potential grantees. SAREP grants are a top program responsibility and a key ingredient in building support for sustainable agriculture and food systems activities, so priority for SAREP discretionary funds should go to restarting SAREP grants, even on a modest scale.

- **Communication, translation and dissemination.** ASI will produce and disseminate science-based information that responds to stakeholders' needs and will improve sustainability of agriculture and the food system through uptake and use by a diverse clientele, including all segments of agriculture across a diversity of scales and systems, agricultural labor and rural communities, and bridging the rural-urban interface. *Status: See section III.4.*
- **Distinguished speakers and seminar series.** Graduate students and faculty have expressed interest in a regular series sponsored by ASI, which could serve as a means to bring colleagues together for stimulating, rewarding, and enjoyable exchanges of ideas at the forefront of sustainability science. *Status: Plans to launch the distinguished speaker series this October had to be cancelled. The director will seek a volunteer from among affiliated faculty to coordinate this series.*
- **Meetings, conferences, symposia and other events.** ASI hosts a variety of scientific and social events, providing forums for stakeholder consultations, formation of collaborative partnerships, and implementation of research education and outreach activities. ASI events will provide a "safe space" to convene people with differing (even conflicting) views, unveil controversy, deepen understanding, and to build consensus for action or support public discussion where no consensus yet exists. *Status: ASI has institutionalized "working agreements" to ensure interactions are based on mutual respect and is developing an active schedule of events that will accelerate when the two SAREP academic coordinators are recruited. Eventually it may be necessary to hire staff for event planning and logistics; in the interim we have explored different arrangements and currently depend on staff of the CA&ES Dean's office.*

III.3. Leadership, collaboration, and coordination

Internal accountability and coordination

Strategic planning, budgeting, and implementation of activities of ASI, SAREP and other ASI units are coordinated within an overall vision, mission, and strategies in order to enhance effectiveness of current programs and of new initiatives. Principles that guide these processes include subsidiarity (delegation to the level of most effective management and decision-making); transparency; and mutual accountability. *Status: Progress has been made in creating a shared vision, mission, values and operational*

principles. When key recruitments are completed, we are planning training to create a "high performance team," including enhanced abilities to work effectively in distributed, multi-disciplinary, culturally-diverse teams; to build and maintain internal capacity to facilitate such teams; to leverage team members' creativity and problem solving capability; to relate effectively with diverse external partners; and to value the diverse contributions from various team members, units and partners.

- **Accountability to UC Davis College of Agriculture and Environmental Sciences (CA&ES) and UC Division of Agriculture and Natural Resources (ANR).** The ASI director also serves as SAREP director and reports to the Dean of CA&ES and the Vice President of ANR. A memorandum of understanding between CA&ES and ANR (see Appendix 7) delegates management and administrative support of SAREP to CA&ES. *Status: ASI and SAREP depend on and receive strong support from CA&ES and ANR leadership, who work well together.*
- **ASI/SAREP core support team.** All core support team positions serve ASI as a whole in order to achieve synergies in strategic planning, priority setting, stakeholder engagement and accountability; budgeting and financial controls; fundraising and proposal preparation, and grant management; information and communication technology; communication and public awareness; and monitoring and evaluation. *Status: A program manager, proposal coordinator, and budget and finance officer were appointed in the last six months. Decision regarding the executive assistant appointment is pending. The senior public information officer and IT manager were existing SAREP staff.*
- **Internal steering committee.** This group includes ASI unit heads and academic coordinators, members of the core support team, affiliated faculty, and student representatives. The committee exists to facilitate synergistic communication, cooperation and collaboration among ASI programs and projects. It focuses on the day-to-day operation and management of ASI and affiliated units. Meetings are open to all staff and agendas typically are distributed in advance. *Status: The committee meets as needed, typically about once every six weeks. We are developing procedures and practices to enhance effectiveness of these meetings.*

Collaboration and coordination with students, faculty and cooperative extension

ASI seeks to bring people together across all divisions of the College of Agricultural and Environmental Sciences at UC Davis, from other UC campuses, UC Cooperative Extension (UCCE), and with other partners across the State of California. These talented people do not need more meetings for meetings sake. As with any of our partners, we strive to respect their time and believe that people respond favorably to collaborative opportunities with clear purposes, real chances for useful results, and that are stimulating, rewarding, and enjoyable.

- **Recognition and awards for leadership and excellence in interdisciplinary, integrative science.** Professional recognition and rewards for interdisciplinary, integrative research, education, and engagement with stakeholders are inadequate in comparison to more conventional academic pursuits. ASI can help redress this imbalance by creating appropriate incentives (awards, prizes, other forms of recognition) for students, faculty, and UCCE colleagues who demonstrate particular leadership or promise of excellence. Mentoring of junior colleagues is another important area for greater attention. *Status: We anticipate gifts to establish awards for leadership and for research excellence in the coming year and will continue to seek additional support of this type.*
- **Student Advisory Committee.** This group draws on the Students for Sustainable Agriculture (SSA) group, an informal group on the UC Davis campus, and was formed to provide input to the director regarding undergraduate and graduate student concerns and ideas related to ASI and the environmental, economic and social relevance in sustainability education programs. In addition to SSA, there are college-based student groups throughout California and it is hoped that SSA can assist in engaging with other campuses. *Status: The ASI director has begun to explore opportunities for engagement (including representation on ASI board, participation in search committees, and co-sponsoring of social events and distinguished speakers) with Students for Sustainable Agriculture (SSA).*
- **Faculty.** In a survey conducted a few years ago, approximately 150 UC Davis faculty members identified themselves as strongly interested in sustainable agriculture. This likely understates interest on the Davis campus and does not include faculty on campuses elsewhere in California, including other UC campuses (especially UC Agricultural Experiment Station faculty at UC Berkeley and UC Riverside and also our colleagues at UC Santa Cruz); California State Universities, community colleges, and other institutions where collegial relationships exist, such as Stanford and Santa Clara. *Status: We have been experimenting with different approaches tied to specific opportunities (e.g., requests for proposals) and need to continue to develop our repertoire for engagement and follow up with colleagues on the UC Davis campus. The director hosts dinners for ASI-affiliated faculty two-three times per year and these have been well received by participants. The deputy director for ASI is a CA&ES faculty member and advises the director on CA&ES linkages and issues, including involvement with the other ASI-affiliated faculty positions designated in CA&ES. The director is in frequent contact with counterparts at UCSC and has participated in events at UCB and UCR, but much more time will be required to develop full potential for faculty engagement to tap into talent across California.*
- **Collaboration with other UC ANR systemwide programs and centers.** *Status: ASI has established relationships with faculty and UC statewide programs working on complementary issues (e.g., Agricultural Issues Center, Kearney Foundation for Soil Science, the Small Farms Center, and the Statewide Integrated Pest Management Program).*

- **UC Cooperative Extension specialists and farm advisors.** SAREP has built working relationships with a number of UCCE specialists and county-based farm advisors (who in total comprise over 400 UC professionals across the state) through support for collaboration among county, regional and campus-based researchers. Competitive grants are one means to build collaborative links across organizational boundaries, but working groups, communities of practice, collaborative proposals and symposia are other means to that end. *Status: Some of these important relationships appear to have lost momentum due to the lapse in the SAREP grants program and, more generally, to tight budgets. The need to strengthen and maintain relationships between ASI/SAREP and UCCE was highlighted as an urgent issue for consideration by the external panel conducting the ongoing SAREP five-year review; their recommendations are pending.*
- **Mechanisms for consultation and collaboration linking faculty, students and UCCE staff.** Regular interaction with numerous interested faculty and UCCE staff would be valuable to ASI as a means to communicate about activities, assess needs, collaborate in development of new initiatives, and reflect on results; such contact is essential to fulfill SAREP's responsibilities. *Status: ASI has been effective in bringing together faculty and UCCE staff for specific purposes (e.g., responding to funding opportunities) and this should improve when the two SAREP academic coordinators are appointed. On the other hand, plans for a "Faculty and UCCE Advisory Committee" were considered as a general means of communication and coordination, but seemed to be unworkable (too many meetings, no pressing purpose). To address this, we plan to explore options with the new ANR program leader, including the possibility of using email list servers for updates.*

III.4. Communication and engagement

- **Statewide communication and engagement.** Other partners in California (e.g., Roots of Change and many of the types of organizations represented on the ASI external advisory board) play complementary roles with UCCE in our efforts to assist California's policymakers and communities (both urban and rural) in understanding and implementing sustainable food and agricultural systems and sustainable resource management. Selecting, building and sustaining key relationships with this complex set of implementation partners and potential end users (see graphic in Appendix 5) require a thoughtful and well-targeted strategy for communication and engagement. *Status: ASI hired Fenton Communications, a leading public interest communications firm, to advise us on the design of a strategy for internal and external communications for ASI, to raise ASI's profile, and to assist in branding ASI as an integrative center of excellence. Within the University of California, we seek means to build community and promote interactions that encourage creativity, connectivity and collaboration (e.g., social networking technologies, webinars, simulations). Equally important, Fenton will advise ASI on priorities and means to target ASI's external communications and public information efforts. Based on these recommendations and discussions with the ASI External Advisory Board, we envision a major new set of communication*

initiatives, focusing on California initially, but broadening to national and international coverage in due course.

National and international leadership, networking and collaboration

California's reputation for innovation and leadership in agriculture and the environment is recognized nationally and internationally. The State's reputation in these areas is linked with the University of California. Thus, ASI is positioned to build on this recognition over time for impact that extends beyond California.

- **Leadership of a new national network.** *Status: With funding from the WK Kellogg Foundation, the ASI Director is leading formation of a national network of more than 20 academic leaders in sustainable agriculture and food systems, including directors of counterpart institutes and centers and holders of endowed chairs at land grant universities and other academic institutions across the US.*
- **Global connections.** *Status: The ASI Director and other UC faculty have extensive professional relationships internationally that will provide the basis for an envisioned international network of leaders in sustainable agriculture and food systems.*

III.5. Fundraising

Fundraising will be a major preoccupation for the entire ASI team. Director of major gifts from the CA&ES Dean's office, our proposal coordinator/grant writer, our senior public information representative, and our budget and finance analyst each play indispensable roles in providing support to the ASI director, deputy director, program manager, our academic coordinators, and faculty affiliates in these efforts. In addition to the team effort, implementation of our fundraising strategy must be supported by a compelling, socially relevant vision and mission, a results-oriented plan of activities, and an exciting strategy for communication, public awareness and engagement. Success also will depend crucially on active involvement and support from our advisory board members, UC leadership, and other friends and partners of ASI.

In broad terms, ASI's needs include reliable sources of funding to revitalize SAREP grants at levels of \$750,000 to \$1.5 million per year, and to fully-fund essential activities of the Student Farm, the Russell Ranch Sustainable Agriculture Facility, the new undergraduate major in Sustainable Agriculture and Food Systems, the Agroecology PhD, the National Symposium on Food Systems and Sustainability, and to implement ASI's vision, mission and strategies, described above. *Fundraising highlights over the past 18 months: two endowment gifts of \$350,000 added to existing endowments of \$6 million; two additional philanthropic gifts of \$200,000; and 12 competitive grants won totaling more than \$972,000 (see Appendix 12 for details on recent and pending grants and other sources of income).*

For the coming 7-10 years, we are planning a campaign to pursue three ambitious fundraising goals:

Goal 1. \$50 million in ASI endowments and philanthropic gifts and to increase ASI's total budget by \$4 million per year. This would be a two-fold increase from just under \$2 million now. The total increase would comprise about \$2 million for research, \$1 million for education, \$750,000 for staffing and operations, and \$250,000 for facilities and equipment. ASI benefits greatly from the income and prestige associated with several endowments, including the Boswell, Kellogg, and Sesnon Endowed Chairs, and program endowments such as those from the Campbell Soup Company and the Van Vlierden Estate. In the near term, ASI needs to find endowments to replace Provost's initiative funds (committed for two more years, at \$40,000 annually) and income from the Rosenberg Endowment (committed by CA&ES for 8 more years, at \$75,000 annually). Endowments are critical resources for building ASI programs. The reliability and flexibility of these significant flows of income is essential if ASI is to be proactive in setting the agenda for sustainability science and action rather than merely reacting to agendas set by others. *Status: Melissa Haworth, CA&ES Director of Major Gifts, will present the rationale and key elements of the ASI campaign for discussion at the external advisory board meeting, including a group discussion of the draft ASI case statement and tangible next steps.*

Goal 2. Secure two or more large program grants each year, totaling \$1 million or more. *Status: We have created an active and effective team, orchestrated by our proposal coordinator, to support efforts by faculty and other partners to produce high-quality proposals for competitive extramural grants.*

Goal 3. Sustain UC support at \$1 million per year. Despite a deteriorating overall budget situation, leadership from the CA&ES Dean's office and the ANR Vice President's office has helped ASI maintain core funding. Current levels of support signal strong commitment by CA&ES and ANR to our agricultural sustainability initiatives and, as such, these are powerful assets in our fundraising efforts in addition to being the foundation for the viability of ASI. *Status: Looming cuts in the State budget raise questions about UC budgets in the coming months and the years ahead.*

Overriding issue for discussion by the external advisory board: Financial conditions -- globally, nationally, and within California -- have deteriorated dramatically in the past few months. The ASI director feels that we should go ahead with the full strategy, even if this requires more years to reach our target. Is that still appropriate and realistic?

IV – CURRENT THEMES AND EMERGING PRIORITIES

Starting points for ASI work

Overall status: This thematic structure and the lists of possible priorities in Appendix 11 were developed in planning workshops with ASI staff and participation from some faculty, students, and farm advisors. The "emerging priorities" listed below were selected from the longer list to provide a selection of concrete examples; they are not a comprehensive list of ASI activities. Indeed, many of these activities are in development and we do not currently have the financial resources or staff to undertake this agenda. Moreover, some existing activities that are not listed below likely would have to be dropped.

Crosscutting Thematic Activity: Scientific Assessment for Priority Setting (see Section III.1 above)

IV.1. Agriculture, Resources and the Environment Theme

Climate Change: Assessing Effects of Climate Change and Climate Policies.

Status: L Jackson led a multi-disciplinary team that completed a prototype study "Potential for Adaptation to Climate Change in an Agricultural Landscape in the Central Valley of California," funded by the State of California. ASI is seeking additional funding to extend this work statewide, including a prospect for Packard Foundation funding of a statewide assessment of carbon fluxes in agriculture.

Climate Change and Water Quality: Reducing Nitrogen Pollution. *Status: Decision pending from the Packard Foundation on funding for an Anchor Grant to ASI to conduct a California Nitrogen Assessment, in collaboration with two statewide programs (the Agricultural Issues Center and the Kearney Foundation for Soil Science) and two related project proposals. If funded, these will be a great boost to ASI work on agroecosystem assessment, climate change mitigation, and nitrogen science.*

Water: Managing Water Conflicts and Increasing Water Use Efficiency. *Status: Water is emerging as the top sustainability issue for California agriculture, and is closely linked to climate change, nitrogen pollution and energy issues. Next steps will be to consult with other centers on the UC Davis campus and elsewhere in the UC and CSU systems to identify whether there is an appropriate niche for ASI.*

IV.2. Food and Society Theme

Local and Regional Food Systems: Building Markets and Communities to Support Small to Mid-scale Growers. *Status: Ongoing SAREP projects, often undertaken in collaboration with the statewide Small Farms Center. SAREP is conducting a*

Symposium in December 2008 to draw lessons from work so far and set priorities for future efforts.

Local and Regional Food Systems: Linking Regional Agriculture with Schools – Farm to School. *Status: An ongoing SAREP project, focusing on understanding how these new programs work best, how they might be scaled up and what impacts they have on the environment, farmers' incomes, and children's health. A parallel "Farm to Hospital" project is in development.*

Energy Intensity of the Food System: Carbon Footprint Initiative. *Status: Major new area of SAREP activity. A state-of-the art review and international roundtable on methodology were conducted in 2007/08, followed this year by a white paper and planning for several case studies. Funding prospects are promising, but have not yet paid off.*

IV.3. Education and Leadership Theme.

Investing in our Children and Youth: Agricultural Literacy for Kindergarten through High School (K-12). *Status: The Children's Ecological Garden and other Garden-Based Learning Programs are well established elements of the Student Farm. There appear to be very good prospects for expansion of these activities.*

Creating the Next Generation of Leaders: Integrative Education for Sustainable Agriculture. *Status: Four core courses of the new undergraduate major in Sustainable Agriculture and Food Systems will be offered for the first time in 2008-2009. It is expected that the formal proposal for the major will be submitted early in 2009, with hope that it will be approved within 12-24 months.*

Useful Knowledge for Agricultural Professionals: Learning Opportunities and Communication Networks for Agricultural Professionals, Agriculture Program Leaders and Teachers to Address Issues of Agricultural and Food System Sustainability. *Status: Pending results of SAREP external review and Fenton communications strategy consultancy.*

Raising Awareness of the People of California: Public Education and Outreach. *Status: Emerged as a top priority in our web-based consultation. Decision on action pending results of SAREP external review and Fenton communications strategy consultancy.*

Networking National Academic Leaders, Policymakers and Journalists: National Symposium on Food Systems and Sustainability. *Status: The Inaugural Symposium will be held in Davis on 24 March 2009. The Kellogg Foundation has funded the inaugural event and second event planned for 2010; additional sponsorship is needed to sustain the series.*

V - INDICATORS OF SUCCESS

Where are we going?

Status: This section will be developed in several dimensions over the coming year.

The program manager, senior public information representative, and proposal coordinator will initiate efforts to institutionalize monitoring and evaluation of various performance indicators, including measures of inputs, outputs, their uptake by partners, and ultimately studies of outcomes for our partners and impacts in the "real world".

The ASI vision statement suggests a number of desired transformations within agriculture and the food system. The activity led by the ASI director on "scientific assessment for priority setting" (see section III.1 above) will develop metrics and indicators for elements of this vision, among other key benchmarks.

More broadly – and more to the point of this section – we need a clear, compelling vision for the development of ASI as an institution as a precursor to identifying indicators of our success. We will launch this process at the inaugural external advisory board meeting in December 2008 and plan to follow through with a staff retreat on this topic during 2009, after key recruitments (the Sesnon Chair and the two SAREP academic coordinators) are complete.

VI - APPENDICES

Appendices can be found on ASI's Web-site at:

<http://asi.ucdavis.edu/board/meeting-2008/>

Appendix 1: Organizational Structure

Appendix 2: Programs and Facilities

Appendix 3: Personnel

Appendix 4: Current Financial Highlights

Appendix 5: Stakeholders

Appendix 6: Results of On-line Stakeholder Consultation on Priorities

Appendix 7: MOU Between UC ANR and UC Davis CA&ES

Appendix 8: Advisory and Accountability Structure

Appendix 9: External Advisory Board-Inaugural Members

Appendix 10: External Advisory Board – Purpose and Operation

Appendix 11: Themes and Possible Priorities – Brief Sketches

Appendix 12: Fundraising – Recent Results