UNIVERSITY OF CALIFORNIA DAVIS
AGRICULTURAL SUSTAINABILITY INSTITUTE (ASI)

STRATEGIC SNAPSHOT AT DECEMBER 2010

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OUR INSTITUTE AT A GLANCE
Update: December 2010

Our mission is to ensure access to healthy 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 for the Agricultural Sustainability Institute. ASI will be a:

- **Convenor**: bringing diverse perspectives together
- **Clearinghouse**: synthesizing, translating and communicating useful information
- **Think tank**: being the thought leader for interdisciplinary research
- **Pioneer**: taking early action on major issues
- **Incubator**: nurturing the next generation of agricultural leaders
- **Action tank**: linking science with action for sustainable solutions

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.

Sustainability Benchmarks for California's Food System: a crosscutting activity to produce scientifically-validated metrics and indicators to benchmark trends in sustainability of California's agriculture and food system.

Programs and facilities

UC ANR statewide Sustainable Agriculture Research & Education Program (UC SAREP)

Russell Ranch Sustainable Agriculture Facility at UC Davis

Student Farm at UC Davis

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
- 6 postgraduate fellows, 6 graduate student researchers, 15 undergraduate assistants
- 9 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. A further 150 UC Davis faculty self-identified as strongly interested in sustainable agriculture.
- A distinguished advisory board of 23 leaders, representing diverse stakeholder interests.
- UC Davis CA&ES Dean's Office support in fundraising, events, administration, information technology.
- 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: roughly $2 million; campaign underway to increase to $6 million.

EXECUTIVE SUMMARY: INTENTIONS FOR OUR MEETING

To: Members, ASI External Advisory Board

From: Tom Tomich, Director, ASI & SAREP

Date: 7 December 2010

Re: **Visioning success, shaping outcomes, delivering results for our partners**

I look forward to seeing many of you this Thursday for our third annual meeting. As we have done each year, an update of our strategic plan, called "Strategic Snapshot 2010" is attached. One sign of the ripening of ASI is apparent: if you have a chance to skim this document, you will find there are relatively few *blue italics* indicating major additions and changes in the 2010 update. One new section documents the important legacy of SAREP's Biologically Integrated Farming Systems Program (BIFS). The other main new section covers developments at our Russell Ranch Sustainable Agriculture Facility. Another sign of our institutional ripening is that the annual updating of this document now is a full-fledged team effort. I am grateful to our ASI leadership team for their excellent contributions.

On the two pages following this memo, we have listed our leadership team's selections of milestones and major accomplishments since November 2009. Many of these milestones have been mentioned in our new ASI Insider e-newsletter, which we hope you find useful as a way to keep up with developments at ASI.

Right after the milestones, you will find a page titled "Our Messages," which includes the talking points generated by board members and staff during our mid-year ASI Advisory Board meeting on 11 May 2010. In previous years, that update message came from an individual (our chair Howard-Yana Shapiro wrote the first in 2008 and Dean Neal Van Alfen contributed the second last year). This year, with both our ASI team and our board functioning at such a high level, a collective set of messages seemed particularly apt.

I hope you share my sense of pride in our milestones and inspiration from our messages. We plan to spend some time Thursday morning for brief, stimulating presentations to help us create a shared context for our meeting. **If you have time to review 3-4 pages before then, please do focus on the "milestones" and "messages".**

Thursday afternoon, our facilitator Cesca Wright will guide us through a visioning process to look ahead 5-10 years to imagine the realization of our best dreams for ASI and also some of our worst nightmares. In these sessions, **we plan to focus on key outcomes for each of ASI's thematic areas**. Situated somewhere between the high-level messages and more detailed activity-level programming that we discussed last May, these outcomes represent the key leverage points that ASI can influence through building awareness, seeking consensus on ideas and issues, developing solutions, and building individual capabilities and institutional capacities. I believe that with your help, we can further clarify our shared sense of these desired outcomes. In this way, we hope to sharpen our focus on results, to strengthen our ability to meet partners' needs and to learn from our own experience, and ultimately to expand ASI resources to levels more suitable to the great opportunities and challenges ahead.

Milestones and Major Accomplishments
(3 November 2009 through 3 December 2010)

RFPs for a renewed SAREP small grants program were released this fall.

Education & Leadership Theme (including the Student Farm)

- **Sustainable Agriculture and Food Systems (SAFS) undergraduate major** approved by CA&ES and within a few steps of campus approval. Increasing interest by students and the public and development of new major **increasing programmatic demands at Student Farm.**
- **Student Farm strategic planning** with broad participation by students and other stakeholders has begun to identify priorities and resources needed for development. A formal collaborative process also has started with students, faculty, staff and administrators to develop a campus **'sustainable living and learning community'** in the Student Farm neighborhood.
- New **graduate seminar on Food Systems Analysis** developed in response to student requests and will be offered Winter 2011.
- USDA Higher Education Challenge grant of $464,098 received to create a partnership model with Center for Land Based Learning, Soil Born Farms, Grant High School and Woodland High School for **recruiting nontraditional and under-represented high school students.**
- 2nd Annual **National Symposium on Food Systems and Sustainability, "Making the Invisible Visible**" held at UC Davis 9-10 November 2010. Designed to create intense learning experiences for participants and bridge science with action, the Symposium was a great success overall and particularly effective in engaging underserved ("invisible") groups and in providing significant professional experience for younger colleagues.
- **Inter-university Network on Food, Agriculture and Sustainability** (INFAS) hosted by ASI, endowed with a $1.5 million gift from the W.K. Kellogg Foundation. Inaugural INFAS meeting held at UC Davis on 11 November 2010, in conjunction with the 2nd Annual Symposium.
- Executive director of Roots of Change and ASI director conducted **eight roundtable dinners across California** with growers and other agricultural leaders.

Food & Society Theme (primarily SAREP initiatives)

- **Four new grants** totaling $681,700 received recently from USDA and CDFA will deepen our food system collaborations with UC Cooperative Extension and community partners.
- Completion of the **San Diego Food System Assessment;** that analysis will be used to develop a Food Policy Council in San Diego County.
- Consultation with policymakers resulted in recommendations on farm-to-school, school gardens and regional food systems strategies to be included in the **Health in All Policies Report** to the Strategic Growth Council (created by SB 732).

- **Strengthened connections with the UC ANR Healthy Families and Communities Initiative, the CA Department of Public Health and UC Davis School of Public Health** through several statewide events.

Agriculture, Resources & the Environment Theme (including SAREP initiatives and the Russell Ranch Sustainable Agriculture Facility)

- USDA National Institute for Food and Agriculture planning grant for $200,000 to launch the **California integrated network to enhance sustainable agroecosystems science.**
- Ongoing **California Nitrogen Assessment** becoming a model for proposed US national nitrogen assessment. Two **Scenarios Workshops** held to take a long view of future nitrogen management in California and guide assessment of options involving policy, technology and research priorities. ASI also hosted a **Nitrogen Science Symposium** that produced recommendations on research and extension priorities for nitrogen issues in agriculture.
- Pending $300,000 gift will allow ASI to continue work on **sustainability benchmarks** beyond the California Nitrogen Assessment, which is expected to be completed in June 2011.
- Our reputation for **life cycle analysis** of agriculture and the food system continues to grow. Climate footprint project for honey completed and new funding of $55,000 received for climate footprinting for almonds. Inquiries also received from other commodity boards for similar work.
- In collaboration with the Western Sustainable Agriculture Research and Education Program (WSARE), ASI/SAREP conducted a **conference with UC Cooperative Extension specialists and farm advisors** to elicit their needs regarding agricultural sustainability and food systems.
- **Russell Ranch Executive Committee** established to guide development of the new science agenda; sub-committees met on aboveground biodiversity, cropping systems, a new science "road map", and on outreach.
- **Russell Ranch landscaped seating area and pergola** created a sense of place – and a more welcoming space – for faculty, students and guests.
- **Russell Ranch dramatically increased capacity for research on water scarcity.** Variable drive pump and programmable logic controller (PLC) system reduce energy use and pumping costs by at least $27,000/year. The pump allows drip irrigation on all plots, cutting irrigation labor costs about 50% and increasing water supply, permitting expansion of research.
- **Russell Ranch acquired a GPS unit** to improve drip placement and winter drainage, allows amendments on a microplot scale, and further reduces water use and labor costs.
- **UC Davis Dining Service now produces Russell Ranch Roasted Tomato Sauce**, which will be served to students throughout the year. Additional tomatoes donated to the **Yolo and Sacramento County Food Banks**, with help from Village Harvest.

OUR MESSAGES
Talking points and phrases contributed at our midyear ASI Advisory Board meeting on 11 May 2010

Agricultural sustainability is everybody's issue.

California can lead the way to a healthy, sustainable food system for the 21st century.

ASI advances a sustainable food system.

ASI is working toward a new, healthy food system for the 21st century.

ASI coordinates, collaborates, and communicates about food system sustainability.

ASI is the hub in the agricultural sustainability discussion.

ASI has "a place at the table" for everyone who accepts scientific evidence and respects others' opinions.

ASI combines passion and science.

ASI confronts the paradox of hunger among abundance.

ASI realizes that agriculture is a culprit (is blamed), victim (bears costs) and solution (offers solutions) for food system sustainability.

ASI builds consensus for sustainable solutions.

ASI helps raise the level of public debate.

ASI is working on tomorrow's issues today.

ASI shapes the agenda for agricultural sustainability and food systems.

ASI catalyzes development of knowledge on emerging issues.

ASI provides credible science-based knowledge, information and data to support decisions affecting the food system in California and globally.

ASI brings legitimacy to science on big, controversial issues.

ASI cultivates the next generation of leaders in food and agriculture.

The "S" in "ASI" stands for solutions/ASI is the "Agricultural Solutions Institute."

ASI produces solutions to the great challenges of our time: climate change, nutrient management, water scarcity, energy efficiency, food access, social justice.

These challenges are summed up in the parable of the "Last Tree": If we don't solve this soon, the whole system collapses.

ASI seeks solutions to effectively manage critical resources – water, land, air, climate.

ASI is helping to answer the question: "How do we feed 9 billion people?"

ASI is helping to invent something different.

ASI connects theory and practice. / ASI links knowledge with action.

ASI links what's happening at UC to what is going on in the field.

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. These strategic elements were developed collaboratively by ASI staff with input from advisory board members and other stakeholders. We welcome additional comments and suggestions at any time.

Status: Changes and additions appear below. The vision for ASI developed at the inaugural external advisory board meeting has been refined over the past two years. The main additions to this version are a new section on "the legacy of SAREP's Biologically Integrated Farming Systems (BIFS) program" and significant changes to the section on the Russell Ranch Sustainable Agriculture Facility reflecting major new developments there. Part V "Indicators of Success" remains in preliminary form and will be a major focus of effort in the coming year, beginning with the Advisory Board meeting on 9 December 2010.

1. Our mission is to ensure access to healthy 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 for food and agriculture:

- 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 for their communities;
- provides healthy food for everyone;
- improves the environment and human health;
- builds awareness and understanding of the food system; and
- engages public participation in policy decisions affecting food and agriculture.

3. Our vision for ASI:

- **Convenor:** bringing diverse perspectives together
- **Clearinghouse:** synthesizing, translating, and communicating useful information
- **Think tank:** being the thought leader for interdisciplinary research
- **Action tank:** linking science with action for sustainable solutions
- **Pioneer:** taking early action on major issues
- **Incubator:** nurturing the next generation of agricultural leaders

4. Geographic scope of ASI:

- **California:** our primary mandate is to serve our home state, which is recognized widely as one of the largest and most dynamic agricultural sectors on the planet. The UC SAREP statewide program is an important mechanism for statewide impact through partnerships with UC Cooperative Extension specialists and county-based farm advisors, among others.
- **United States:** we are working to develop ASI's potential for national scope by hosting the annual National Symposium on Food Systems and Sustainability, which was launched in 2009, and through plans to host the new Inter-university Network for Food & Agricultural Sustainability (INFAS).
- **International**: we envision a gradual increase in international activities as appropriate opportunities arise, emphasizing academic exchange and scientific networking. In 2009, ASI hosted our first international scholar (Sakae Horimoto of Japan) and joined our first international scientific network when the California Nitrogen Assessment formally became a part of the ongoing MA Subglobal Assessments. In additional to national exchanges and global networks, our two regional priorities are linkages with programs in the Mediterranean, arid, and semi-arid agro-climatic zones (e.g., Australia, Chile, Egypt, Italy, South Africa, Spain, and the International Centre for Agricultural Research in Dry Areas) and with sub-Saharan Africa. (At this time, we do not anticipate creating capacity for international project implementation; instead ASI will collaborate with the CA&ES International Agricultural Programs Office at UC Davis.)

5. Our core values: creativity, inclusiveness, integrity, partnership

6. 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: creativity, inclusiveness, integrity, partnership.
- **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. 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. *Status: the Inter-university Network for Food and Agricultural Sustainability (INFAS), which is hosted by ASI and was endowed by the W.K. Kellogg Foundation in 2010, is designed to address a number of issues facing the land grant system and had its inaugural meeting at UC Davis on 11 November 2010.*

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. Changes at SAREP over the past two years have involved some difficult choices. One SAREP academic coordinator position was closed in 2008 (due to retirement) and two SAREP analyst positions and the IT manager position were phased out in 2009. Two new SAREP academic coordinator positions were recruited to provide scientific leadership for the "Agriculture, Resources and the Environment" and "Food and Society" thematic areas. Our long-serving Senior Public Information Representative retired in 2009; to provide those important communication functions, we recruited a new Communication Coordinator in October.

Status: SAREP grants program was relaunched with an RFP issued in fall 2010, with funding for grants totaling $200,000 and priorities developed during the Staff Program Planning Retreat in September 2009 and discussed during the mid-year Advisory Board meeting in May 2010.

The UC Division of Agriculture and Natural Resources (DANR) sponsored a 5-year external review for SAREP in 2009. Key documentation is included in Appendix 12. Major points from that review include:

- **Structure**: ANR endorsed the consolidated ASI/SAREP strategic plan and external advisory board, as long as "the distinct mission and objectives of SAREP are delineated" in ASI strategic plans and annual SAREP work plans.
- **Governance**: recommended expanding the external advisory board, in particular to include UCCE representatives. (This has been implemented.)
- **Scope**: recommended expanding SAREP's geographic coverage, stakeholder engagement, and commodity coverage.
- **Collaborations**: Recommended expanding engagement with UC ANR programs, workgroups, AES scientists, UCCE specialists, and county-based advisors.
- **Science-based approach and communications**: SAREP should be the premier source and statewide dissemination focus for … unbiased, balanced, science-based information on sustainable agriculture.
- **SAREP grants program**: ANR recognizes the importance of the grants program in "impacting a greater range of programs", "leveraging additional funds," and "stimulating thinking"; the grants program "must be accountable in terms of reporting and communications."

Based on its external review of SAREP, DANR renewed commitment to SAREP, with the next review planned to take place in three years. Taken together, these DANR recommendations are in accord with our own strategic planning and programming objectives for SAREP as a key unit of ASI.

Subsequent to the SAREP external review, DANR has gone through its own strategic review and reorganization and has launched five new strategic initiatives, including one entitled "Sustainable Food Systems". *Status: Uncertainty remains regarding the implications for SAREP and ASI of UC DANR restructuring and the new DANR strategic initiatives, particularly the "sustainable food systems strategic initiative".*

Legacy of SAREP's Biologically Integrated Farming Systems (BIFS) program--
BIFS projects typically included on-farm demonstrations, a collaborative model of outreach and extension to share technical information, and an organized program of monitoring key biological and economic variables to inform on-farm decision making. Between 1995 and 2002, SAREP funded ten multi-year projects in nine different farming systems--apple, citrus, dairy, prune (dried plum), rice, strawberry, tomato & cotton, walnut and winegrape -- through a competitive grants process. These projects were part of a larger set of initiatives including Biologically Integrated Orchard Systems (BIOS) projects coordinated by the Community Alliance with Family Farmers (CAFF) and the California Department of Pesticide Regulation's Pest Management Alliance grants. Between 2002 and 2009, SAREP partnered with key UCCE advisors and specialists to acquire funding for two additional BIFS projects addressing fresh grape and lettuce farming systems. SAREP also led a workgroup to strengthen networking between UC researchers and extension staff with stakeholders beyond the UC system working on projects to encourage adoption of integrated farming systems.

BIFS projects demonstrated that when participating growers had evidence that yields and profits could be maintained with more environmentally-sound farming practices, they often adopted these practices on most of their acreage. Many non-participating growers were exposed to innovative practices through project outreach activities. There were many encouraging outcomes that emerged as a result of our BIFS projects. A few examples include:

- *The West Side BIFS project (tomato & cotton) was instrumental in initiating a growing interest in conservation tillage among California growers.*
- *The Lodi-Woodbridge Winegrape project supported a regional sustainable winegrape growing program that eventually led to a certified eco-label for wines.*
- *Collaborations initiated by the Rice BIFS project led to a grower advisory group to guide much-needed research on alternative weed management systems.*
- *The publication of Agroecology in Action: Extending Alternative Agriculture through Social Networks by Keith D. Warner in 2007 used several BIFS projects as case studies to illustrate the value of learning sustainable farming practices through collaborative sharing of knowledge.*

Looking ahead to the next generation of BIFS. *SAREP's leadership and collaboration in BIFS projects showed that growers can be willing partners in developing a more sustainable food and agriculture system. As ASI and SAREP agendas shift in response to stakeholder priorities and other developments, such as newer emphases on research and outreach at landscape level issues (in our Agriculture, Resources and Environment theme) and the community level (in our Food and Society theme) our work nevertheless must remain linked with (and grounded in) practical "grass-roots" experience exemplified by BIFS. Thus, SAREP's legacy of experience with collaborative innovation processes through BIFS that are designed, led and implemented by groups of farmers is an important component of ASI's institutional repertoire that compliments researcher-designed and implemented experiments at the Russell Ranch Sustainable Agriculture Facility and student-led initiatives at the Student Farm at UC Davis.*

Russell Ranch Sustainable Agriculture Facility – Russell Ranch Sustainable Agriculture Facility – a 300-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 facility for research on sustainability in irrigated agriculture in a Mediterranean climatic zone and one of the few facilities of its kind anywhere. Funding has been below sustainable levels for years.

ASI Deputy Director Kate Scow is directing development of a new scientific plan and *has initiated a new Russell Ranch Executive Committee. The Executive Committee has met twice and new working groups are addressing issues such as establishing a "road map" and new scientific priorities, reviewing the current cropping systems, creating a new outreach group, and establishing new working groups on above and belowground diversity and water and tillage management. Key priorities from the draft of the Russell Ranch road map are:*

Integrative research at Russell Ranch:

-Diversify farming systems at Russell Ranch (i.e. perennials, market vegetables, mixed crop-animal systems, biofuels)

-Introduce more flexibility into the design of the systems to stay relevant and realistic

-Enhance capacity and promote research projects to address California's pressing concerns: competition for water, water use efficiency, climate change, habitat preservation, energy efficiency, air and water pollution

-Create a network connecting university research to landscape scale on-farm research (possibly building on SAREP's Biologially Integrated Farming Systems experience).

-Increase data collection from research projects at Russell Ranch; increase real time wireless data collection; make all data publically available and interactive.

-Facilitate and increase linkages with international interests in Mediterranean agriculture and sustainable development in general (Russell International)

Education at Russell Ranch:

-Create a "living laboratory" around Russell Ranch with facilities to support in-field teaching and student research

-Strengthen connections to other ASI programs and local community (i.e. Student Farm and SAREP)

-Encourage experiential education through class field trips, undergraduate internships and grants for graduate student research

Russell Ranch communication as a two-way flow:

-Create two-way channels of communication both to deliver and listen to science from users and practitioners, policy makers, extension specialists, NGOs

-Engage public on climate change and role of agriculture, resource conservation, food safety and security by hosting field days and hands-on workshops.

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. The Student Farm continues to thrive, but additional funding is needed to realize significant upside potential.

Status: Student Farm strategic planning with broad participation by students and other stakeholders has begun to identify priorities and resources needed for future development. Separately, a formal collaborative process with a diverse group of students, faculty, staff and administrators has been initiated to develop a campus 'sustainable living and learning community' in the Student Farm neighborhood.

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 are offered by ASI-affiliates; governed by a committee of department chairs. 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. *Status: the proposed received approval from the College of Agricultural and Environmental Sciences this fall and is within a few steps of final campus approval. Increasing interest by students and general public and the development of new undergraduate major are resulting in new and increasing programmatic demands at our Student Farm.*

PhD in Agroecology and other graduate courses – ASI will support rejuvenation of this established area of emphasis within the top-ranked Ecology Graduate Group. Efforts also are underway to design a new graduate seminar on food systems to be offered through the Community Development Graduate Group. Enrollments currently are low in the agroecology area of emphasis. There has been great growth in interest in food systems among Community Development masters students. Funding for graduate student fellowships can attract new, high-caliber students, who will contribute to ASI research and education activities. Preliminary inquiry in 2009 found that "agroecology" is studied in a range of graduate groups at UC Davis and is not confined to the Agroecology Area of Emphasis. Needs of the broader group include Web presence and activities (intellectual and social) to convene students and faculty, both of these needs can be addressed by ASI. This also suggests that the process to identify recipients for the annual Shapiro Family Award for Best Agroecology Dissertation also needs to reach out to students (and their advisors) beyond the Ecology Graduate Group. *Status: In January 2010 ASI director Tomich was invited to lead a review of the field of agroecology to be published in the Annual Review of Environment and Resources in early 2011. A report based on this review has been requested by the Ecology Graduate Group and should inform the agenda for the future of graduate-level agroecology education at UC Davis. This review project involves over a dozen ASI-affiliated faculty and other UC Davis colleagues. Also at the graduate level, Tomich has worked with Gail Feenstra to design a new graduate seminar on "Food System Analysis", which will be offered for the first time winter quarter 2011.*

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 about 10 leading members and 320 members of the community through listserv. 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)

Nineteen staff (full- and part-time), including a five-person core support team serving ASI, SAREP and all affiliated facilities and programs. **SIx postgraduate fellows** attached to SAREP, Russell Ranch, and the new undergraduate major. Typically **six to eight graduate student researchers and 15 undergraduate assistants** (all part-time). *Status: As shown in Appendix 4, our staffing levels have remained stable over the last year. Our grant funded staff has increased by 1.5 FTE to support new grant projects initiated this year. Our numbers of graduate student researcher positions, which fluctuate quarterly, are increasing as new grant projects are awarded. Russell Ranch restructuring and job classifications will be completed this coming year and a new field technician was recruited.*

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 (E Kebreab, starting December 2009) 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), and pollination ecology (N Williams).

II.4. Annual funding: *We estimate that the total core funding (from CA&ES and ANR) for the current fiscal year (2010/11) will be $975,524, compared with $964,544 in 2009/10 and $1,217,237 in 2008/09. Total annual funding, including yearly income from gifts, endowments, grant funding, and earned income has continually increased over the three previous fiscal years (2007/08 through 2009/10) to over $2.0 M. Note: These budget figures do not include salaries of ASI affiliated faculty. (Please see Section III.5 below and Appendix 5a and b for additional financial information).*

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 (see Appendix 9). 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. In line with suggestions at the inaugural Board meeting in 2008 and with a recommendation of the SAREP external review that year, two new advisory board members were recruited to better represent perspectives from UC Cooperative Extension.

Roles of board members. Roles of board members were outlined (Appendix 9) and finalized during the inaugural advisory board meeting in 2008. Ideas regarding the strategic roles of board members that were discussed include: (a) providing feedback, ideas and advice; (b) connecting ASI to new constituencies and resources; (c) staying aware of the difference between their roles as external advisory board members and, in several cases, their roles as ASI partners; and (d) bringing multiple perspectives.

- **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. Results of the 2008 online survey (Appendix 14) have informed development of our portfolio of initiatives.

- **Consultation**. Our new communication strategy will enable us to take a more systematic approach to our ongoing process of consultation and engagement with stakeholders.

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.

- **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. Some relevant mechanisms are in place in SAREP, but much more needs to be done over the years ahead to create a learning organization. (Also see Section V below, Indicators of Success.)

- **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. 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. For details, see sections IV.1, IV.2, IV.4.

- **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. For details, see section IV.3.

- **Grantmaking.** SAREP grants are a top program responsibility and a key ingredient in building support for sustainable agriculture and food systems activities. 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. 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. *Status: Based on advice received from the ASI Advisory Board, SAREP restarted its grants program in fall 2010. Uncertainties remain regarding future funding for SAREP grants.*

- **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. Fenton Associates submitted their recommendations for ASI's communication strategy in February 2009. A new Communication Coordinator is being recruited.

- **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. The series was inaugurated with a seminar by Professor Jules Pretty of the University of Essex, speaking on "Sustainability and the State of the World Food System" on 3 November 2010.

- **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. ASI has institutionalized "working agreements" to ensure interactions are based on mutual respect and is developing an active schedule of events that will accelerate now that the two SAREP academic coordinators are recruited. ASI will continue to receive backup support from staff of the CA&ES Dean's office for some events.

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. Now that key recruitments are completed and our team is in place, 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 11) delegates management and administrative support of SAREP to CA&ES.

- **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; communication and public awareness; and monitoring and evaluation.

- **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. The committee meets as needed, typically about once every six weeks.

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. Currently, ASI administers two awards: the Eric Bradford-Charlie Rominger Sustainability Award for uncommon leadership in the field of sustainability and the Shapiro Family Award for Best Agroecology Dissertation, in recognition of research excellence.

- **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. Opportunities for student engagement include representation on ASI board, participation in search committees, and co-sponsoring of social events and 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. 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 DANR statewide programs and centers.** 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. *Status: restructuring of UC DANR and launch of new DANR strategic initiatives may present new opportunities for ASI and SAREP to engage more broadly.*

- **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. Through active participation in various ANR initiatives, workgroups, programs and events, we seek to broaden and strengthen relationships between ASI/SAREP and UCCE. Adding two UCCE professionals to the external advisory board also was a step toward greater statewide collaboration.

- **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. Particularly through with leadership from our two SAREP academic coordinators, we have been effective in bringing together faculty and UCCE staff for specific purposes (e.g., responding to funding opportunities). 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).

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 6) require a thoughtful and well-targeted strategy for communication and engagement. *Status: implementation of key recommendations in the Fenton Associates report still is pending recruitment of an ASI/SAREP communications coordinator.*

- **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 the new Inter-university Network for Food and Agricultural Sustainability (INFAS).** The INFAS network was endowed by the W.K. Kellogg Foundation with a $1.5 million gift in 2010. ASI hosts and coordinates INFAS, which is a national network of more than 24 academic leaders in sustainable agriculture and food systems, including directors of counterpart centers and holders of endowed chairs at land grant universities and other academic institutions across the US.

- **Global connections.** 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 Communication Coordinator, Proposal Coordinator, and Budget and Finance Officer each play indispensable roles in providing support to the ASI Director, Deputy Director, Program Manager, 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. ASI is included in the pop-up menu on the "gift button" on the UC Davis Website (http://giving.ucdavis.edu/), enabling donors to make electronic donations to ASI. *Status: Please see Appendix 31A for data on funding for the past two fiscal years and Appendix 31B for information on our grant proposal submissions. Public documentation of our multiple sources of funding is available on our ASI website at www.asi.ucdavis.edu/about/funding. We are in the process of updating this page to include fiscal year 2009/10.*

For the coming 7-10 years, we are planning a campaign to pursue three ambitious fundraising goals (listed below) for ASI:

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 more than a two-fold increase from under $2 million in 2007/08. 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 medium term, ASI needs to replace a significant source of income from the Rosenberg Endowment (committed by CA&ES for 6 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: The current cumulative value of ASI's total philanthropic support (including grants, gifts, and endowments) is $10,490,150 (Appendix 31c). We're pleased to announce that this includes a $1.5 million endowment from the WK Kellogg Foundation to support the Inter-university Network on Food and Agricultural Sustainability (INFAS). The ASI endowment campaign nests within parallel fundraising campaigns that have been launched by CA&ES and by the UC Davis campus. As with those other campaigns, prospects for success for ASI are contingent on at least one "mega" gift of $10-20 million. In the near term, ASI needs to find endowments to replace the Provost's initiative funds at about $40,000 annually, which is approximately equivalent to income from a $1 million endowment. (We received our final allocation of the Provost's funds this fiscal year.) Appendix 31d shows the cumulative value of ASI's endowment gifts.*

Goal 2. Secure two or more large program grants each year, totaling $1 million or more. Criteria for allocation of ASI resources to development of grant proposals include: (a) a "champion" steps forward to lead development and writing of the proposal, (b) proposed project is interdisciplinary and will allow ASI to draw in faculty across

departments, (c) fit with ASI's thematic areas, (d) intellectual merit and potential contribution to ASI's research, education and outreach programs, (e) potential for connections across the University of California and with other institutions, (f) potential for outreach and collaboration with external stakeholders, (g) significant funding amount, (h) acceptable requirements for matching funds, (i) likelihood of success, and (j) time and resources available to prepare a high-quality proposal. (These criteria are not prioritized.) *Status: We created an active and effective team, orchestrated by a Proposal Coordinator, to support efforts by faculty and other partners to produce high-quality proposals for competitive extramural grants. With a full-time coordinator onboard (June 2008), this produced a great increase in numbers of proposals submitted for competitive grants, rising from 2 proposals in 2007/08 to 16 proposals in 2008/09; 15 of which were funded to bring in $2.7 million (Appendix 31). In 2009-2010, our coordinator unfortunately resigned (for personal reasons in August), and, subsequently, fewer proposals were submitted. However, all 9 proposals that were reviewed in 2009/2010 were funded. A new half-time proposal coordinator began working in January 2010, and the partial 2010/2011 numbers show the renewed increase in ASI grant activity: 6 proposals have been awarded totaling $1.25 million just halfway through the year, including a $464,000 award from the USDA Higher Education Challenge grant program and a $498,000 award from the CDFA Specialty Crop Block Grant program.*

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 UC DANR Vice President's office has helped ASI maintain core funding. Continuing support signals 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. SAREP's base budget from UC DANR was cut 20% (approximately $100,000) in fiscal year 2009/10, which was proportional to the overall cut faced by DANR. *Status: We anticipate that CA&ES and ANR core funding will be maintained during the current fiscal year, however, the likelihood of further cuts in the California State budget create ongoing uncertainty about UC budgets in the years ahead.*

IV – CURRENT THEMES AND EMERGING PRIORITIES

Starting points for ASI work

Overall status: the current thematic structure and priorities for our initiatives seems to be working well, though it will be some time before ASI has financial and human resources sufficient to pursue all proposed initiatives. During the ASI External Advisory Board meeting on 9 December 2010, ASI staff wish to look ahead 5-10 years to engage board members in further sharpening of the anticipated outcomes associated with our various initiatives. We see formulation of outcome statements that are compelling for external audiences as key tools in: (a) increasing our resources, (b) strengthening our partnerships, (c) focusing our work, and (d) developing an effective and inspiring approach to monitoring and evaluation.

IV.1. Agriculture, Resources and the Environment Theme

- Energy and Climate Footprinting of Food Production and Supply Chains
- Responding to Climate Change
- Sustainable Management of Nutrients and Water in Agricultural Landscapes
- 'Closing the Loop': Integrating Sustainable Waste Management in Agriculture
- Harnessing Ecosystem Services to Increase Agricultural Sustainability

IV.2. Food and Society Theme

- Building Regional Markets and Communities
- Community Food Security for Low-Income Residents
- Food System Assessments/ Food Policy
- Farmworker Wellbeing

IV.3. Education and Leadership Theme

- Experiential Learning for Post-Secondary Students
- Formal Post-Secondary Education in Sustainable Agriculture and Food Systems
- Education for Primary and Secondary School Audiences in Agriculture, Environment, Food and Nutrition
- Cultivating Leadership in Sustainable Agriculture and Food Systems

IV.4. Crosscutting Initiatives.

- Sustainability Benchmarks for California's Food System

V - INDICATORS OF SUCCESS

Where are we going?

ASI's strategic plan, and particularly our vision statements, suggests a number of desired transformations within agriculture and the food system and institutional capabilities to be built within ASI. With input from the Director, the Program Manager, our Academic Coordinators, Communication Coordinator, and (part time) Proposal Coordinator, the Program Manager will initiate efforts to institutionalize monitoring and evaluation of various performance indicators during the coming year, including measures of inputs, outputs, their uptake by partners, and ultimately studies of outcomes for our partners and impacts in the "real world".

To launch this important area of work, the Director and Program Manager led a session on monitoring, evaluation and impact assessment during the Staff Program Planning Retreat in September 2009. Within the context of our California Nitrogen Assessment, we have collaborated on joint interests with an evaluation expert retained as a consultant by the Science Subprogram of the Packard Foundation. We seek to develop monitoring systems that can help us more effectively link knowledge generation to action and also assist us in developing a "theory of change" in conjunction with development of a monitoring and evaluation plan, which will be implemented by ASI.

Status: Looking ahead to 2012 and the anticipated five-year reviews of SAREP and of the MOU between DANR and CA&ES, work on monitoring and evaluation is planned to accelerate and deepen in 2011.

VI – LIST OF APPENDICES

Appendices can be accessed at: http://asi.ucdavis.edu/board/meeting-2009/

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Appendix 17: Education for Primary and Secondary School Audiences in Agriculture, Environment, Food & Nutrition
Appendix 18: Cultivating Leadership in Sustainable Agriculture and Food Systems

Food and Society Theme – Concept Notes

Appendix 19: Building Regional Markets and Communities
Appendix 20: Community Food Security for Low-Income Residents
Appendix 21: Food System Assessment/Food Policy
Appendix 22: Farmworker Wellbeing

Agriculture, Resources and the Environment Theme – Concept Notes

Appendix 23: Energy and Climate Footprinting of Food Production and Supply Chains
Appendix 24: Responding to Climate Change
Appendix 25: Sustainable Management of Nutrients and Water in Agriculture Landscapes
Appendix 26: "Closing the Loop": Integrating Sustainable Waste Management in Agriculture
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Crosscutting Initiative – Concept Note

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Appendix 29: Fenton Communications Strategy: summary and full report
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