K-State 2025 Sustainability Strategic Action Plan

Overarching Goal:

K-State will leverage all its strengths to support a societal transition that addresses the sustainability challenges of our time through its capacities in: Academics, Engagement, Operations, and Leadership

Sustainability Preface/Assumptions:

The world faces a major problem: to enhance human well-being while confronting global environmental changes that are undermining planetary stability. This problem entails deep interdependencies between economic, social, and environmental conditions and forces of change. These conditions are largely driven by human activities and governance at all scales: local, state, regional, national, and international. Within this societal problem there are a number of important challenges. Chief among these challenges are long-term food and energy security as well as human dignity, material well-being, and social justice for all. But these needs must be met in ways that do not irrevocably undermine the health of non-human ecological communities, which are vital to regulating and sustaining our air, water, soil, and other critical life support systems of our planet. Current efforts, and social and environmental trajectories are a long way from balancing short-term human material needs and desires with long-term stability, resilience, and sustainability of social-ecological systems.

The concept of sustainability has emerged as a response to these challenges, entailing both efforts to better understand the complexity of human-environment relationships (sustainability science) and normative decision-making about what kind of conditions we wish to create and sustain over the long-term (sustainable development). The paradigm of sustainability thus involves a (very) long-term orientation toward understanding human-environment processes and making decisions and investments toward resilient and regenerative conditions. It requires immediate attention, as well as continued attention and thought well beyond 2025.

Important concepts for sustainability efforts include the centrality of systems thinking, the importance of both spatial and temporal scales, enhancing resilience, and consideration of multiple interacting components of sustainability: environmental, social, and economic ('triple bottom line' components). As a result, sustainability is a beneficial core concept for integrating ideas from diverse subject areas.

The dimensions of concern relevant to sustainability can be overwhelming (e.g., scale and scope of global issues, social norms, environmental health, and economic conditions). Given the complexity of these challenges and systems, sustainability efforts are necessarily adaptive, requiring continual reassessment of conditions and needs, and adjustments in efforts. The sustainability paradigm thus informs pathways of decision-making and orients decision-making toward ideal futures that nevertheless have no identifiable end-points (see NRC 1999¹). Education and research should help identify possible desirable future conditions and help move toward sustainability.

Higher education has a moral obligation to develop and share knowledge about how to responsibly and ethically address the grand sustainability challenge of our time. Responding to this call to action also is consistent with K-State's land-grant mission. We have a responsibility to leverage our strengths to serve societal needs.

In accordance with this rationale, K-State has four overarching goals for its sustainability efforts:

- 1) Academics: Research, Undergraduate Experience, Graduate Scholarly Experience: K-State will be an international leader in the development of sustainability knowledge among our students, scientists, and scholars.
- 2) Campus and Public Engagement: K-State will infuse sustainability into its engagement activities and leverage these enterprises to create communities of support for sustainability that drive progress toward the integration of sustainability goals throughout the institution.
- 3) **Operations:** Create a robust dynamic between operations and the teaching/research/service mission of the university that impacts decision-making at all levels in incorporating deep triple bottom line thinking with robust engagement of campus occupants and grassroots networks (EcoReps).
- 4) Leadership: Foster administrative leadership to ensure all university programs and departments/units are active partners in accomplishing the university's sustainability goals.

¹ National Research Council, Board on Sustainable Development (NRC). 1999. Our Common Journey: A Transition toward Sustainability. Washington, DC: National Academy Press.

Goal 1: Academics: Research, Undergraduate Experience, Graduate Scholarly Experience

2025 Overarching Goal: K-State will be an international leader in the development of sustainability knowledge among our students, scientists, and scholars.

This goal will be achieved through:

- I. Infusion of sustainability challenges into existing programs
- II. New interdisciplinary academic programs featuring sustainability
- III. Encouraging diverse learning communities around grand sustainability challenges
- IV. Engaged sustainability research and education that feature partnerships reflecting our land-grant mission
- V. Administrative support to identify and expand the university's strategic areas of academic and research emphases in sustainability
- VI. Initiate and develop a new synergistic center for sustainability knowledge development (Center for the Advancement of Sustainability Knowledge CASK)

Assumptions:

- 'Academics' (curricular and research activities) are oriented around knowledge production and dissemination.
- Advancing toward sustainable solutions to the world's grand challenges requires a robust response from higher education in knowledge production and dissemination. Academics is thus a central part of this K-State 2025 Sustainability Strategic Plan.
- Sustainability considerations help ground student learning in real world issues and needs.
- "Living laboratories" blending research, teaching, and campus operations provide opportunities for students to learn about sustainability in real-world contexts, and should be supported.
- Sustainability is a beneficial core paradigm for integrating ideas from diverse subject areas.
- Research and curricular concerns overlap and are connected; therefore activities related to research and curriculum (knowledge enhancement) noted in this strategic plan overlap.
- Many of the activities and outcomes assume that K-State is successfully addressing activities specified in K-State 2025. For this section of the sustainability-focused plan, connections to progress toward goal activities in Themes 1, 2, and 3 are particularly relevant, but are not explicitly listed here.
- There are organizational and decision-making structures, cultures, existing distributions of resources, and competing priorities throughout the university (and professional association accreditations outside the university) that often present barriers to development of cross-disciplinary academic efforts.
- A coordinated effort from the administration (top down) to change university structures and to promote a sustainability curriculum and related research will be needed. Bottom-up efforts from faculty, staff, and students are already happening and will benefit from a change in institutional climate.

Activities			Key Outcomes Impact							
			Short Term (2013 – 2015)		Intermediate Term		Long Term (2021 – 2025)			
	I. Existing Programs:		What do we expect to happen by 2015?		t do we expect to ben by 2020?	What do we expect to happen by 2025?				
	Infusion of sustainability challenges into existing programs, ensuring that all undergraduate students are exposed to sustainability principles and issues through their education	1.A.	Sustainability as an emphasis of the K-State First program is adopted	1.W.	25% of undergraduate students matriculated after 2014 will have	1.XX.	Sustainability science and scholarship are widely understood to be			
	a) include a sustainability component in the First Year Experience;	1 D	Creation of an annual		met a sustainability		a core emphasis of K-			
	b) modify K-State 8 to explicitly recognize required inclusion of sustainability- focused coursework for undergraduates	1.B.	Т.В.	event for professional		requirement for	1 VV	State		
	 include sustainability concerns in any consideration of modifications to the general education curriculum 		support incorporation of sustainability content	1.X.	Identification of at		in place to enable all students to have			
	 encourage internships, interdisciplinary/ service learning courses, and study abroad opportunities that include sustainability components (some internships may be based in campus operations) 		into teaching and/or research		least 12 courses across disciplines as K-State 8		exposure to sustainability principles and issues.			
	 Support for College additions of Sustainability category to basic requirements (e.g., A&S adding Sustainability to Humanities, Social 	1.C.	Existing connections to sustainability in K-State		sustainability options					

Science, and Natural Science categories.)	1.D. 1.E.	8 are highlighted to more explicitly support sustainability principles in the curriculum Inventory completed of existing sustainability related and focused courses Inventories of internships, interdisciplinary/service learning experiences, and study abroad opportunities that include sustainability components to create a baseline measure. Natural Resources and Environmental Sciences (NRES) secondary major program considers change in approach and name	1.Y. 1.Z. 1.AA. 1.BB.	An inventory of sustainability courses and courses with sustainability content is publicly available (STARS) Increases in number of sustainability related and focused courses Increases in the number of internships, interdisciplinary/servic e learning experiences and study abroad opportunities specifically incorporating sustainability learning Career & Employment Services attention to interdisciplinary and sustainability careers in support of undergraduate programs NRES/Successor program has increased enrollment and features more robust engagement of students at all stages of their university	1.ZZ. 1.AA4 1.BBE	Additional increases in number of sustainability related and focused courses A. Increased participation in sustainability related internships, interdisciplinary/ service learning experiences and study abroad programs. B. NRES or its successor program has continued to increase enrollment and engage students at all stages of their university experience
II. New Interdisciplinary Academic Programs:				of their university experience		
 New interdisciplinary academic programs featuring sustainability a) create interdisciplinary undergraduate major, minor, and certificate options in sustainability/sustainability science² b) Create interdisciplinary graduate degree options in sustainability/sustainability science 	1.G. 1.H.	Creation of one or more 100-level introductory courses in sustainability Develop working groups to identify and promote efforts toward flexible,	1.DD.	Begin graduating bachelors-level students in sustainability-focused interdisciplinary programs	1.CC(C. Begin graduating PhD-level students in sustainability-focused interdisciplinary programs

²Expected to reflect a high level of flexibility, innovative and in keeping with the needs of sustainability science and societal moves toward sustainability. A&S interdisciplinary physical science, social science, and life science degrees may serve as models. Geography now has an 'advising track' organized around "Nature, Society, and Sustainability." However, it is not an officially-recognized "Option" (yet), and is not "interdisciplinary" in terms of having non-Geography components. (Geography is by nature an "interdisciplinary discipline" which includes social science, physical science, humanities, and applications approaches.)

			interdisciplinary graduate degree programs	1.EE.	Develop and publicize graduate degree programs	
				1.FF.	By 2017 begin to matriculate graduate students into sustainability-oriented program(s)	
1	II. Diverse Learning Communities:			1.GG.	By 2020 begin graduating masters- level students in sustainability-focused interdisciplinary programs	
E	 Encouraging diverse learning communities around grand sustainability shallenges a) improve academic venues and create structures for "unstructured" participation that encourage and integrate learning, social interaction, and community focused on sustainability 	1.I.	Creation of informal and semi-formal opportunities for faculty, faculty/staff, and/or faculty/staff.	1.HH.	"Ongoing library support for sustainability research and learning in the form of research	1.DDD. Continued increase in interdisciplinary networks, fostering faculty and student
	 b) explore the building of living and learning communities where students become engaged with peers, scholars, and researchers focused on sustainability themes c) foster development of topical networks similar in nature to the Prairie 		interactions to help build a sustainability-focused interdisciplinary community of		guides, materials selection policies and practices, curriculum development efforts,	around sustainability topics/challenges
	Studies Initiative around various sustainability challenges		scholars/educators at K- State. (Possibilities include 'coffee hours,' roundtables, 'happy hours,' 'brownbags,' seminars		sustainability literacy promotion, and e- learning objects focused on sustainability" (STARS)	
		1.J.	The number of interdisciplinary faculty/activity topical networks have increased	1.11.	Number of campus activities and programs from interdisciplinary networks has	
I	V. Research and Education Partnerships:	1.K.	Prairie Studies Initiative firmly established with high degree of campus awareness		increased	
E	Engaged sustainability research and education that feature partnerships eflecting our land-grant mission	11	Funding	1.1.1	Increased number of	1 FEF Additional increased
	 a) encourage collaboration among faculty both explicitly and implicitly with greater 'credit' for collaborative research, teaching, engagement, and Extension efforts 		incentives/recognition programs have been developed for faculty		active collaborations between researchers and Facilities	numbers of applied research/teaching projects involving K-
	 Identify gaps/needs in faculty sustainability expertise related to key sustainability research topics 		as a basis for sustainability teaching,		conduct applied research for the	State campuses

٦	c)	integrate sustainability research and education with university operations		research, and		university's benefit	1.FFF.	. Increased numbers of
	d)	promote and recognize international research about global sustainability challenges as the university seeks to increase its international research collaborations		engagement/Extension work	1.KK.	Incorporation of physical university		undergraduates and graduate students involved in research in
	e)	identify appropriate funding programs for sustainability research	1.M.	Inventory completed of sustainability research, including international research collaborations.		campuses as living laboratories into education and research: utilize "infrastructure and	1 660	applied campus and community sustainability projects
			1.N.	(STARS) An inventory of sustainability research is publicly available by 2018.		operations for multidisciplinary student learning, applied research and/or practical work	1.000	of faculty members and departments involved in interdisciplinary applied research/teaching projects on K-State
			1.0.	Identified appropriate funding programs for sustainability research,		that advances sustainability on campus" (STARS)	4	campuses and communities
				with promotion plan for faculty	1.LL. 1.MM.	Increased number of undergraduate research experiences related to sustainability Increased extramural funding for sustainability research	1.HHH 1.III. 1.JJJ.	 Additional increased number of undergraduate research experiences related to sustainability Additional increased extramural funding for sustainability research Additional increased
	V. A	cademic and Research Emphases in Sustainability:			1.NN.	Increased publications about sustainability topics		publications about sustainability topics
	Adm	inistrative support to identify and expand the university's strategic areas of	1.P.	A presidential	1.00.	K-State has "formally	1.KKK	. Achievement of top-tier
	acac a) b) c)	temic and research emphases in sustainability development and implementation of guidelines, policies, and procedures that support the infusion of sustainability in academic and research endeavors broad recognition and promotion of sustainability efforts by K-State's administrative leaders focus on sustainability efforts as essential to addressing global challenges, including those faced specifically in Kansas		commission/ committee has been created to develop recommended guidelines, policies, or other initiatives to infuse sustainability concerns in academic and research endeavors		adopted policies and procedures that give positive recognition to interdisciplinary, transdisciplinary, and multidisciplinary research during faculty promotion and/or tenure decisions"	1.LLL.	status in Academics— curricular and research—components of STARS by 2025 Annual report for internal and external promotion of activities/recognition
	d) e)	implementing an emphasis on sustainability as a key fundraising focus	1.Q.	Creation and implementation of a		(STARS)		
	e)	sustainability work		Provost's sustainability lecture series, with an annual high caliber speaker working in sustainability research or education to highlight university commitment	1.PP.	Administration has established internal programs of dedicated financial support, resources, and incentives for sustainability research (STARS)		

VI.	Academic Sustainability Center/Institute:	1.R.	Annual report established for internal and external promotion of activities/recognition	1.QQ. 1.RR. 1.SS.	K-State administration creates recognition program for faculty achievements in sustainability research and education Annual report for internal and external promotion of activities/recognition University formally adopts a policy of open access availability of sustainability-related research findings in a designated OA repository (STARS). (This may be accomplished through K-REx.)	
Initia devu Kno a) b) c) d) e) f)	ate and develop a new synergistic center for sustainability knowledge elopment (possible name: Center for the Advancement of Sustainability weldge – CASK ³) with the following roles: Encourage more faculty members to incorporate sustainability into their scholarship and teaching (see also activity 4 below) build faculty expertise in sustainability/ sustainability science/sustainable development through strategic hiring, recognition of existing expertise, and institutionalizing professional development in sustainability expand and strengthen strategic partnerships and collaborations at all levels that encourage advancement of sustainability research/ scholarship and outreach activities develop and support a campus community of sustainability teachers, scientists, and scholars monitor Center accomplishments, status, and needs, applying an adaptive model to center activities ldentify and upgrade, or create, space for collaborative sustainability work (i.e., physical core facilities for the Center)	1.S. 1.T.	Committee created to analyze the current status of sustainability work at K-State, explore other models and innovative options, and make recommendations about the form of a center for sustainability Communications of administration with current leading departments in sustainability scholarship to encourage sustainability leadership capacity and job descriptions in several new hires Decision made regarding the form of a center for sustainability and	1.TT. 1.UU. 1.VV. 1.WW.	Website developed publicizing campus- based projects and outcomes Hiring needs identified for strengthened capacity in sustainability research and teaching Departmental/college relationships built to enable strategic hiring to support desired university sustainability content strengths Center established with involvement of faculty, staff, and students in every	 MMM. Ongoing annual symposium NNN. Ten key hires made by 2021 OOO. Hiring coordinated with departments, infusing top scholars doing integrative sustainability research/ scholarship throughout the university; at least 3 sustainability-focused members of the National Academies hired by 2025 PPP. Ongoing leadership by the academic center for sustainability in offering programs and facilitating scholarly

³Alternatively, 'Institute' for the Advancement of Sustainability Knowledge: I-ASK

identification and reassignment of key faculty in leadership roles has begun.	college	community
1.V. Initiation of efforts to obtain extramural funding for sustainability center and sustainability- oriented activities (identify and work with Foundation point- persons)		

Goal 2. Campus and Public Engagement

2025 Overarching Goal: K-State will infuse sustainability into its engagement activities and leverage these enterprises to create communities of support for sustainability that drive progress toward the integration of sustainability goals throughout the institution.

Assumptions:

- At present, sustainability efforts do not sufficiently engage broader audiences and partners in engagement activities.
- Engagement is core to our value and identity as a public research land-grant university contributing to the public good.
- Community engagement refers, for the purposes of this plan, to local, state, national, and international scales.
- Engagement is synergistic with our research and education efforts, not an add-on.
- Internal and external communications are essential to continued support and development of the University's strategic interests toward sustainability.
- Potential external partners seek to be involved with and will put resources toward efforts that are highly successful.

Activities	Key Outcomes Impact					
		Short Term (2013 – 2015)		Intermediate Term (2016 – 2020)	Long Term (2021 – 2025)	
	What do we expect to happen by 2015?		What do we expect to happen by 2020?		What happ	do we expect to en by 2025?
I. Campus Engagement:		-		-		-
 Develop recruitment programming and information for prospective students to introduce them to sustainability opportunities at K-State and effectively promote K-State's successes. a) Infuse sustainability activities into student orientation programming, setting the tone for sustainability learning within a social experience. 	2.A.	Financial and academic resources are devoted to create sustainability programming for prospective students.	2.X. 2.Y.	K-State is known for its sustainable focus by all future students. The university's sustainability goals	2.NN.	K-State students, faculty, and staff prioritize sustainability in all that we do, developing a cultural change throughout the
 Create student activity programming through UPC and other entities that emphasize sustainability a) Create a student sustainability representative network (EcoReps). 	2.B.	Administration, academics and operations collaborate to identify and actively		and successes are being met and promoted.		campus that we are all stewards of the environment.
 b) Develop co-curricular student activities reaching the majority of the student population. 		promote K-State's	2.Z.	Sustainability	2.00.	K-State has an actively
 c) Leverage academic programming to build student communities of outreach and engagement. 		successes.		infused into all aspects of campus		organizing student voice regarding
d) Develop active residence hall programming and clustered living for special	2.C.	Student sustainability awareness is increased		life.		sustainability issues within and beyond the

Τ		interests in sustainability.		by robust sustainability	2.AA.	Sustainability-related		university.
	e)	Develop appropriate university services to share "green" job and		programming of		employers look to K-		_
		internship opportunities with students and alumni.		activities and service		State for interns and	2.PP.	Engagement activities
	f)	Create student sustainability challenges and incentives within the campus		undergraduate and		graduales		retention rates
		community.		graduate.	2.BB.	Students are actively		
						involved in promoting	2.QQ.	Several key
	3. 01	fice of Corporate Engagement, Career and Employment Services, and	2.D.	Student EcoRep		sustainability both on		partnerships in place
1	susta	inability-related employers and career tracks and facilitate students taking		faculty/staff EcoRen		and on-campus.		with major employers.
6	advai	ntage of these opportunities		network).	2.CC.	Increase in job and	2.RR.	K-State has a rich
				,		internship		network of faculty
	4. Cr	eate new and utilize existing networking activities for faculty and staff led	2.E.	Clustered living for		opportunities for		collaborating and
	oy me a)	Increase faculty and staff participation and enthusiasm for programs and		students with special		students.		exploring research and
	u)	initiative, enhancing the EcoReps network.		in Residence Halls.	2.DD.	Faculty and staff are		connections.
	b)	Create sustainability challenges and incentives within the campus				actively involved in		
	,	community.	2.F.	Student sustainability		promoting	2.SS.	K-State has a
				awareness on campus		sustainability both on		supportive environment
ţ	5. In	ra-University Sustainability Partnerships		sustainability		and on-campus.		university academics
	a)	Develop partnerships across university operational and academic units to		challenges.	2.EE.	K-State Athletics has		and operations to
		performance metrics		·		implemented		pursue their
	h)	Develop a partnership with the Center for Engagement and Community	2.G.	Existing interested		sustainable practices		sustainability goals.
	0)	Development to facilitate university sustainability engagement efforts.		departments identified		operations and dame	2 TT	K-State has dynamic
	c)	Develop a partnership with Athletics to include their sustainability		departments identified.		day events.	2.11.	intra-university
	- /	practices in the university's sustainability efforts and goals.	2.H.	Faculty/staff		,		sustainability
	d)	Develop a partnership with the Alumni Association to support and identify		sustainability education	2.FF.	Alumni are aware of		partnerships between
		alumni with sustainability interests		programming		and actively contribute		the university and
	e)	Develop a partnership with the KSU Foundation to cultivate donors in		connections between		sustainability		Athletics, the Alumni
		support of sustainability initiatives		academics, research,		initiatives.		Association and the
				operations, and campus				KSU Foundation to
				life.	2.GG.	l argeted		help engage students,
			2.1.	Robust EcoRep network		initiatives are being		alumni to pursue the
				infused across all		funded.		university's
				departments/units on				sustainability goals as
				campus.				well as those of these
			2.1	Faculty/staff				and liary units.
				sustainability awareness				
				is improved by campus				
				sustainability				
				challenges.				
			2.K.	Initial sustainability				
				engagement with				
				campus and community.				
1			1		I		1	

	2.L.	Athletics staff				
		sustainability committee				
		has developed plan for				
		with university's office of				
		sustainability				
		odolaniability.				
	2.M.	Athletics has developed				
		a communication				
		strategy to improve fan				
		participation in athletics				
		efforts				
	2.N.	Alumni Association				
		Sustainability Special				
		Interest Group				
		established.				
	2.0.	Targeted sustainabilitv				
		initiatives selected and				
		sustainability-minded				
		donors cultivated by				
II Community Engagement		KSU Foundation.				
1. Actively promote the relevancy of sustainability and becoming involved in	2.P.	Increased engagement	2.HH.	Increased	2.UU.	Public views K-State as
policy-making and debate.		with stakeholders on		engagement with		a place that places
2. Preaden outreach and strengthen conspitute here leader in sustainability		sustainability issues		stakeholders on		nign priority on
engagement reaching diverse populations and stakeholders.	2.0.	Work with city of		Sustainability issues.	2.VV.	Increased engagement
		Manhattan officials to	2.II.	Develop noncredit		with stakeholders on
3. Identify and engage our stakeholders actively and regularly as partners.		create a framework for		certificates,		sustainability issues
		community stakeholder		conferences, and		
4. Develop targeted strategic partnerships with industry, government, NGOs,		engagement.		community lectures	2.ww.	Increase number of
and other institutions involved in research, education, and extension.	2 R	Create an external		sustainability		programs available to
5. Our set and sub-many second size the set of sub-instant states	2.1 (.	advisory committee of	2.JJ.	Create event to work		the public.
5. Support and enhance economically and environmentally responsible		community partners to		with other Kansas	2.XX.	Increase number of
busiliess opportunities for our stakeholders.		develop/promote		higher education		strategic private and
		collaborative		institutions on		public sector
		partnerships at the		sustainability issues.		partnersnips that
		international levels on	2.KK	Increase number of		research and/or
		sustainability.		strategic private and		extension in
		2		public sector		sustainability
	2.S.	K-State Cooperative		partnerships that		comparable to
		Research and Extension		support teaching,		aspirational peers
		anals regarding		extension in	2 44	Increase faculty and
		sustainability in their K-		sustainability		staff participating in
		State 2025 strategic		,		sustainability

2.т	T.	plan Implement an interdisciplinary sustainability speaker's bureau and lecture series available and open to the public.	2.LL. 2.MM.	Increase faculty and staff participating in sustainability engagement projects Continue coordinating efforts with the K- State Office of Corporate	2.ZZ.	engagement projects Continue coordinating efforts with the K-State Office of Corporate Engagement to strengthen relationships with industry.
2.\	U. V.	Identify number of strategic private and public sector partnerships that support teaching, research and/or extension in sustainability. Increase number of faculty and staff participating in sustainability engagement projects		Engagement to strengthen relationships with industry.		
2.V	W.	Coordinate efforts with the K-State Office of Corporate Engagement to strengthen relationships with industry.				

Goal 3. Operations

2025 Overarching Goal: Create a robust dynamic between operations and the teaching/research/service mission of the university that impacts decision-making at all levels in incorporating deep triple bottom line thinking – with robust engagement of campus occupants and grassroots networks (EcoReps)

Assumptions:

Buildings, Energy, Water:

Social Dimensions:

- Customer satisfaction is important
- High quality and modernized campus operations and infrastructure are critical for increasing research output, as well as recruiting and retaining high quality students, faculty, and staff and empowering high levels of productivity
- Economic dimensions:
 - Energy costs are major constraints on operational budgets for the university, and concern about increasing costs over time should impact strategic investment decisions
 - Sustainability buildings and utilities initiatives must be affordable in the short term and cost effective over the long term
- Environmental Dimensions:
 - o Buildings and built environment are the biggest source of energy consumption for the university
 - o Energy consumption is the primary driver of carbon emissions for the university, and potable water consumption is also an important form of indirect energy consumption
 - Reducing energy consumption and shifting remaining energy consumption to renewable and low-carbon intensity energy sources are vital strategies for addressing climate goals for the university
 - Climate change may produce significant strain on available water resources, and the university should be prepared for this risk

Climate Change:

- Climate Change presents a number of "grand challenges", both in terms of the challenges the world faces in adapting to its consequences as well as in challenges to mitigate the
 severity of these consequences through changing energy supply and use. Students, faculty, staff, alumni, partners, the citizens of Kansas, and other stakeholders of K-State will
 be responding to the issue in various ways throughout their lives.
- There is an imbalance in the global carbon cycle due to preponderance of fossil carbon fuels. Human industrial activity and technology use is the central driver of climate change resulting from this imbalance.
- K-State has a responsibility to its students, program stakeholders, and the citizens of Kansas to model productive ways of both mitigating climate change (reducing or eliminating its contribution to the carbon imbalance) and adapting to climate change (carefully assessing potential impacts from climate change on campus operations and planning carefully for future activities as well as making appropriate investments with these impacts in mind). This responsibility derives from our duty to provide students and stakeholders with knowledge about how they can also do such things, as well as how to be wise stewards of the public investments Kansans have made and continue to make in K-State.
- Climate change mitigation outcomes are produced through activities throughout all operations categories, rather than from activities solely related to climate change itself. Climate change itself is an outcome of wide-ranging human activities and technology use.

Grounds and Water:

- Grounds/landscapes offer significant ecosystem services with social and environmental benefits to the university and community attracting students, outdoor classroom space, pleasant work and study environments, retaining and filtering stormwater runoff, shading buildings and outdoor spaces, biodiversity, etc.
- Grounds/landscape management practices are significant consumers of energy, fertilizers, and other external inputs that are both costs to the university as well as having environmental impacts from production and use
- Grounds/landscape management hold significant opportunities for mitigating climate change through carbon sequestration and helping campus adapt to climate change through effective stormwater management of higher intensity storms and through drought/heat tolerant plantings
- · Water availability is critically important for campus from a human needs standpoint and in terms of landscape management
- Landscapes that reflect the native ecosystems of their region and our climate can maximize the ecosystem services benefits they provide while minimizing external inputs required for management
- Customer experience is important to the university, but fostering a place-based connection to the uniqueness of the prairie can be a way of providing a distinctive and high quality customer experience through low-impact and highly resilient native landscapes
- Adequate funding for maintenance is necessary if we are to receive high quality ecosystem services benefits from our landscapes

Transportation:

- Transportation systems are key elements of campus operations, and have high levels of impact on key sustainability performance criteria, such as carbon emissions, stormwater management, health impacts of different transportation options (benefits of active commuting, air quality from vehicle emissions, etc), and more.
- Lower environmental impact transportation options also enable alternative growth strategies that can be less expensive to construct and maintain.
- The campus master plan for K-State emphasizes growth in public transit and bikability/walkability of campus, as well as reductions in public access to parking in the campus core.

Waste, Purchasing, Dining:

- Dining, Purchasing, and Waste systems are key elements of campus operations, and have high levels of impact on key sustainability performance criteria, such as carbon emissions, environmental and social impacts of resource procurement and disposal, costs to the university, and more.
- The university has an opportunity to use its purchasing power to promote sustainable business practices and to reward more sustainable business models.
- Quality of products is an important criteria, alongside environmental and social performance attributes products need to be of good quality and economically affordable in addition to being sustainably sourced
- Waste and purchasing habits are prime areas of opportunity for building greater community sustainability awareness and behaviors/participation.
- Together, these topic areas constitute the major material flows of campus, and the university needs to pursue synergies between purchasing, use, and end-of-life disposal in ways that minimize waste and maximize the useful life of the material resources we utilize, in recognition of the need for responsible societal limits to resource extraction from valuable Earth systems and ecosystems.

Activities	Key Outcomes Impact						
		Short Term	,	Intermediate Term		l ong Term	
		(2013 - 2015)		(2016 - 2020)		(2021 - 2025)	
	Wha	t do we expect to	What	do we expect to	What d	to we expect to	
L Buildings:	hanr	nen hv 20152	hann	en by 20202	hannei	n by 20252	
n Bullunigo.	napr	2010.			парро		
 Design new buildings with strong energy performance, water management, and other environmental attributes, including integrating site- and project- appropriate renewable energy technologies (active solar, passive solar, geothermal, and/or other) Budgetary and decision-making pressures toward value-engineering must be addressed Must find a way of incorporating life-cycle costing into value engineering processes for building design and design refinement Retrofit, renovate, or otherwise improve existing buildings to raise levels of energy and environmental performance relative to university climate mitigation commitment and goals for campus-wide energy intensity Develop robust preventative maintenance program for existing buildings integrated with energy management staff 	3.A. 3.B.	Sustainability performance is a significant priority in planning for new College of Business, Residence Hall/Dining Center buildings, as well as the Student Union renovation. Financial, planning, and Facilities management mechanisms identified to invest in facilities retrofits that strongly feature energy and sustainability performance features.	3.HH. 3.II.	New buildings with high sustainability performance become signature facilities that promote collaborative learning and working environments, multidisciplinary work, and integrated interaction between students, faculty, researchers, staff, and administrators, especially featuring sustainability features to foster "living laboratories" for sustainability education and research. Improved building sustainability performance due to retrofits, with increased workplace satisfaction and more engaging learning	3.SSS. N 2 r 2 ((7 t 3.TTT. N t 7 3.UUU.S 8 3.UUU.S 8 8 3.UUU.S 8 8 8 8 8 8 8 8 8 9 8 9 8 9 8 9 8 9 8	New buildings since 2015 have met the requirements of the 2012 International Green Construction Code (IGCC 2012) or most recent version of his code New buildings and hose that have been retrofitted will experience high levels of building user satisfaction Signature facilities that everage sustainability performance and promote collaborative earning and working environments, multidisciplinary work, and integrated nteraction between students, faculty, researchers, staff, and administrators.	

II. Energy:				environments due to improved sustainability performance.	
See activities above for buildings 1. Invest in energy programs within Facilities to increase its energy analysis, facility auditing, and planning capabilities for building-level and campus-wide energy infrastructure and performance	3.C.	ASHRAE Level 1 Audits performed on all facilities, including performing an Energy Star EUI benchmark.	3.JJ.	ASHRAE Level 2 audits performed on high priority facilities identified in Level 1 Audit that indicate promising ROL and	3.VVV. Energy system renovations of high priority facilities identified in ASHRAE Level 2 audit results has been
 Develop active behavioral and energy education initiatives through partnerships between Facilities and campus occupants, academic programs, student organizations, central administration, communications and marketing, and other groups on campus to help achieve reductions in energy intensity for campus Align college/unit funding incentives with desired energy saving behaviors/practices Actively pursue viable multi-scale renewable energy projects - based upon multi-dimensional analysis including ROI/payback as well as key environmental and social indicators - to displace fossil fuel Scope 1 and 2 energy sources for campus as an important strategy for meeting climate mitigation goals for the university	3.D. 3.E. 3.F.	A selection of key campus buildings will have been carefully audited and analyzed for opportunities, as well as current energy intensity levels. Established a goal for 2025 for level of energy intensity of campus buildings Behavioral/campus involvement campaign	3.KK.	incorporate Energy Star Portfolio Manager rating for facilities. Funding and infrastructure planning undertaken for high priority facilities renovations identified through ASHRAE audits, and energy system renovations of at least one high audit priority facility has	 accomplished, bringing significant numbers of older buildings up to a basic level of modern performance and improvements, with Energy Star building ratings above 50. 3.WWW. Overall building stock has reached a much lower level of energy intensity per square foot, and per campus weighted user
 rooftop solar PV and/or parking lot PV) b) Power purchase agreements (PPA's) with off-site renewables (e.g. western KS wind energy) 	3.G.	has been initiated Pilot rooftop solar and solar covered parking pilot installations implemented and feasibility analysis studied for broader	3.LL.	begun. Energy management system in place covering entire main campus, operating in concert with behavioral campaigns	(goals developed in 2013-2015 timeframe) 3.XXX. An excellent campus community experience supported by facilities and landscapes that enhance social
	З.Н.	Feasibility study completed for north pastureland wind project, and planning/implementation pursued if viable	3.MM.	occupants. Significant improvements in performance attained for several key target facilities. Improved building performance due to comprehensive energy management, with increased workplace satisfaction due to energy improvements and utility/operational cost savings being	 and collaboration through leveraging campus as a living laboratory for energy management, education, and scholarship. 3.YYY. Carbon footprint for university operations will be reduced to levels appropriate for a trajectory of 80% reductions by 2050 (climate action plan developed in 2013-

			3.NN.	reinvested in further facilities improvements. Widespread implementation of rooftop solar/parking lot solar if financially feasible	3.ZZZ	2015 timeframe) A majority of university Scope 1 and 2 energy comes from renewable resources with that do not degrade the source of the renewable resource and are bio- physically/ecologically sustainable over
			3.00.	Implementation of behind the meter local wind if feasible		centuries-long time horizons
III. Water:			3.PP.	Other innovative behind-the-meter renewable energies considered and implemented where feasible (geothermal, passive solar water heating, and/or other)		
 New buildings employ rainwater catchment and/or grey water reuse technologies to reduce demands for fresh potable water use from Manhattan water system Renovations of old buildings and grounds will implement water efficient systems 	3.I. 3.J.	Inefficiencies in central plant, campus steam/chilled water loops, and indoor water use identified Campus potable water consumption has been benchmarked against STARS framework/metrics	3.QQ. 3.RR.	Statewide policies for public institution power purchase agreements changed and large-scale power purchase agreement for Kansas wind energy pursued Water consumption reductions have been included in planning for building retrofits	3.AAA	A. Reduced potable water consumption per square foot of campus buildings, tied to facilities and central plant renovations/improveme nts tied to energy goals
IV. Buildings, Energy, and Water:				and central plant upgrades		
1. Involve students, faculty, and staff in research and development of pilot- scale innovative building, energy, and water projects for managing efficiency, renewable energy, or other sustainability infrastructure issues	3.K. 3.L	Increase in number of pilot projects Increase in numbers of	3.SS.	Significant number of departments throughout the university involved in	3.BBB	B. Large numbers of students involved in experiential research and learning involving
2. Communicate successes to internal campus and external university constituencies, stakeholders, and audiences		students, faculty, and staff involved in pilot projects		campus facilities sustainability research and education opportunities/projects,		sustainability projects with campus infrastructure.
	3.M.	Strengths, opportunities, and successes of existing campus sustainability efforts		with continuous increases in numbers of students involved in these efforts as	3.CCC	C. National reputation for high quality, innovative, and site- appropriate

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V. Climate Change:	3.N.	communicated to the campus public and external stakeholders. Improved campus culture that celebrates sustainability efforts, progress, and importance.	3.TT.	experiential learning and research. "Living laboratory" sustainability successes are communicated widely with the general public, with national- level exposure.		implementation of sustainability into campus infrastructure as well as involvement of academic mission in campus infrastructure management
 Develop a Climate Action Plan for K-State, involving students and faculty in identifying and evaluating opportunities for climate mitigation and adaptation Integrate Climate Action Plan goals and outcomes into decision-making at all levels of Facilities capital investments, operational maintenance, and ongoing Facilities services Integrate climate awareness and leadership into campus activities/academic programs – promoting opportunities for involvement on campus as well as in the lives and lifestyles of students, faculty, and staff, including fostering opportunities for student and faculty research related to indicators and assessment and/or implementation of climate action plan items. VI. Grounds and Water:	3.O. 3.P.	Have created a climate action plan to reduce carbon intensity and total carbon emissions from university activities by 80% by 2050 from a 2005 benchmark Campus awareness raised, and education/research mission of university engaged in applied climate mitigation/adaptation conversations for the university	3.UU. 3.VV.	Making initial quantitative progress on climate action plan Campus and Community involvement in University climate efforts, including research and education outcomes	3.DDD 3.EEE	 D. Achieve a benchmark reduction in our carbon intensity and in total carbon emissions from university activities by 80% by 2050 vs our 2005 benchmark E. Campus and community-wide carbon reductions due to widespread involvement Student/faculty/staff involvement in updating climate action plan over time
 Develop plan in concert with feasibility analysis for long-term substitution of prairie place-based identity landscapes and productive community gardens in place of current lawnscapes and impervious surfaces a) Create place-based native and/or resilient landscape design guidelines for new campus building projects, and enforce guidelines with architects/design professionals designing those projects Consider Sustainable Sites Initiative standard for maximizing desirable ecosystem services from site planning b) Clarify responsibilities/role/membership of landscape advisory committee, and empower the committee to oversee major landscape investments and management plans c) Identify high maintenance and low maintenance needs areas for campus to prioritize Facilities staff time/resource investments in management, and work with stakeholders for those areas to identify areas for shifting to native prairie and/or more resilient landscapes 	3.Q. 3.R.	Plan developed, and priorities and responsibilities clarified Community of landscape-oriented faculty, Extension personnel, and grounds staff, students, and other interested stakeholders has been developed, and education programs are being pursued by this community.	3.WW. 3.XX.	Begun to implement plan, with significant projects utilizing and demonstrating appropriate governance for landscape management Positive programming has been developed for prairie landscapes, and public acceptance has been secured, overcoming any potential push-back against native	3.GGG 3.HHH 3.IIII.	 GG. Large areas of high water use and high maintenance areas have been replaced with low-input native and appropriate alternative resilient landscaping H. Utilize landscape management as a key climate mitigation strategy in climate action plan for campus Cultural acceptance and celebration of
2. Develop education efforts for public acceptance of place-based prairie aesthetics – leveraging academic departments for visualizations and signage as well as Extension for public engagement, all in partnership with campus	3.3.	encouragement practices are in place,		plantings, including any negative historical		native and more resilient landscapes by

landscape management planning and ground staff		enhancing coordination		perceptions of K-State		campus occupants and
a) Rules, training, and enforcement for Facilities maintenance staff and contractors to reduce damaging impacts to landscaping and infrastructure		petween Facilities grounds staff and other		"silo-tech" and		stakenolders, viewed as a strength of K-
due to indiscriminate vehicular access of sites,		Facilities staff.		before campus		State.
especially for minor projects with minimal oversight/planning	<u>а</u> т	Otudanta facultu cod		invested significantly		Cubatantial
3 Develop recruitment training and retention programs for departmental/unit-	3.1.	Students, faculty, and		in lawn maintenance	3.JJJJ	. Substantial
student/faculty/staff co-management partnerships for key native landscapes		involved in growing		and landscaping.		learning, and/or other
and community gardens		community of	3.YY.	Extension and other		partnerships of
a) Use planning process to build relationships with building occupants,		stakeholders developing		forms of engagement		students/faculty/staff
alumni with vested interests in landscape appearances, student groups,		and forms of co-		and academic		co-managing place-
management		management/research		research related to		and productive
b) Foster research opportunities for students in designing landscape		in partnership with		campus management		landscapes in key
management strategies and evaluating benefits (social, environmental, economic)		Facilities grounds staff.		of landscapes		areas alongside Facilities personnel
	3.U.	Initial steps	3.ZZ.	Substantial		
4. Implement Tree Campus USA plan for managing trees as part the native-		accomplished in Tree		undergraduate and	3.KKK	K. Next phase of
oriented place-based landscape identity for campus		Campus USA plan		research projects that		in Tree Campus USA
5. Install pockets of bioretention cells throughout campus in critical stormwater	3.V.	Opportunities for		help improve		plan
flow points to maximize infiltration and stormwater flow reductions from campus		bioretention cells,		landscape		
		permeable		management and	3.LLLL	Reduced stormwater
sidewalks and road/parking surfaces, especially in key stormwater flow areas		surfaces, and irrigation		benefits		(increased % managed
		technology				by natural systems for
7. Implement design guidelines in Campus Master Plan for reductions in		improvements identified,	3.AAA	Next phase of		stormwater
stormwater runoff from all new building and landscaping projects for campus		and plan of priorities		progress accomplished in Tree		management)
8. Invest in modernizing irrigation technologies/infrastructure for more precise		developed.		Campus USA plan	3.MMN	M. Increased quality of
and environmentally sensitive management (using climate data, sensors, etc.)	3.W.	Campus engagement				stormwater runoff
		program development	3.BBB	Reduced stormwater		(decreased pollutants
9. Develop benavioral water management campaign for building users based		important action-area		runon from campus		in runoii, appropriate
other sustainability behavioral campaigns with building occupants		important douorr drou.		managed by natural		
				systems for	3.NNN	N. Reduced quantities
				stormwater		of irrigation, with
				manayement)		landscape and
			3.CCC	Increased quality of		regionally/climate
				stormwater runoff		appropriate vegetation
				(decreased pollutants	2000	
				temperatures. etc.)	3.000	engagement program
				······································		development features
			3.DDD	.Reduced quantities of		water use as an
				irrigation, with		important action-area.
				landscape and		
				regionally/climate		
				appropriate vegetation		
	1		1		1	

			3.EEE.	Campus engagement program development features water use as	
				an important action- area	
VII. Transportation:					
 Planning an integrated transportation system for campus Improve transportation planning processes, potentially reorganizing transportation-oriented programs and departments under a central transportation department, with responsibilities for multi-modal systemic transportation planning, prioritization/allocation of resources, and implementation of transportation investments Reformulate Parking Council into a university-wide committee with a name, structure, and charge reflective of its role in supporting governance of the overall transportation systems for campus, and not just parking. Include campus fleets' management and university-related travel as part of the transportation system planning for meeting goals of the university Climate Action Plan. Integrate campus planning with community long-range planning initiatives like the Manhattan Comprehensive Plan – addressing issues such as 	3.X. 3.Y. 3.Z.	Organized bicycle/alternative transit advisory group/committee to pursue 5E's planning for alternate transit modes Designation as a Bicycle Friendly Campus (base level) Reorganized Parking Services into a campus transportation planning department aligned with	3.FFF.	Improvement in Bicycle Friendly Campus status . Significant shift in mode-share of commuting, creating a trend toward less personal-automobile dependent and energy intensive campus transportation system. Reductions begin in # of students bringing cars with	 3.PPPP. Further improvement in Bicycle Friendly Campus status – at least Silver level by 2025, perhaps Gold level 3.QQQQ. Major shifts in mode- share toward less personal-automobile dependent and energy intensive campus transportation system (enabling substantial progress toward
 community-wide parking issues, demand for public transit, bicycle and pedestrian planning/investments, etc. 3. Public transit, bikability/walkability/alternative transit modes investments for campus core a) Using strategies from the 5E's framework from League of American 	3.AA.	Facilities Planning Reorganized Parking Council into more comprehensive transportation system	3.HHH	them to K-State. Multi-modal Transportation plan developed to suit needs of Campus	Campus Master Plan transportation goals as well as supporting progress along trajectory to climate action plan goals)
 Bicyclists, but applying beyond just bicycles, as all modes of transit can benefit from planning across the 5E's for their particular mode b) Driven by more comprehensive transportation system planning as above c) Leveraging avoided costs and targeted user fee increases (as below) to generate financial resources for some of these investments 		campus committee (with bicycle advisory subcommittee, as well as others as needed)		Master Plan and Climate Action Plan, with complementarity to City of Manhattan Comprehensive Plan	3.RRRR. Reductions continue to increase in numbers of students who bring cars with them to K- State
4. Align financial incentives for parking permits and other user fees with desired commuting behavior outcomes (increased fees for campus core parking, reduced fees for distant parking, subsidized public transit, investments in bike/ped infrastructure)			3.111.	Implementation of strategic multi-modal transportation investments by newly formed transportation	3.SSSS. Campus fleet becomes more energy efficient (supporting trajectory to climate
5. Invest in energy efficient and alternative fuel/energy vehicles for campus fleet, and increase use of alternatives to transportation where possible (virtual meetings, carpooling, Zip Cars, etc.)				department	action plan goals)
VIII. Waste:					
 Continue investment in campus recycling program and staff, and further refine operational efficiencies and reinforcement of recycling practices with Facilities staff Need to work with Fire Marshall more collaboratively to improve recycling bin accessibility indoors 	3.BB.	Divert 30% of material waste from landfill toward goal of eventually being zero waste	3.JJJ.	Divert 50% of material waste from landfill toward goal of eventually being zero waste	3.TTTT. Divert at least 75% of waste from the landfill toward goal of eventually being zero waste

 Increase programming engagement with faculty/staff/students and ancillary K-State units (Athletics, Foundation, Alumni Center, etc.) to increase participation in recycling and to promote waste minimization opportunities Revisit campus contracts that obligate campus to high waste production systems – to potentially minimize waste (e.g. Pepsi contract, etc.) a) Influence campus-wide beverage contract RFP drafting for waste minimization opportunities (winter 2014) 	3.CC.	New beverage contract that reflects waste minimization priorities	З.ККК.	Continued beverage contract with waste minimization outcomes	3.UUUU. Waste minimization efforts have effectively reduced waste intensity per weighted campus user and per square foot
IX. Purchasing:					
 Develop university-wide purchasing policies that maximize environmental performance for university purchases and empower purchasing department to hold university units accountable to these standards except where explicit and clear exceptions are required to support the university mission Purchasing office staff begins revising specifications in all quote solicitations for key purchasing product categories (electronics, paper/office supplies, cleaning materials and pest control) Purchasing office includes recyclability of waste produced, impacts from manufacture and supply chains, and life-cycle cost of operating/maintaining products in revisions to product specifications for all quotes Purchasing department develops appropriate data gathering capabilities and supports analysis/assessment of environmental performance across university purchasing activities for purposes of revising product specifications, policy development and refinement, and performance tracking a) includes recyclability of waste produced, impacts from manufacture and supply chains, and life-cycle cost of operating/maintaining products in revisions to product specifications, policy development and refinement, and performance tracking a) includes recyclability of waste produced, impacts from manufacture and supply chains, and life-cycle cost of operating/maintaining products in revisions to product specifications for all quotes 	3.DD.	Purchasing guidelines and policies developed, especially involving commonly purchased products/materials (paper, electronics, cleaning materials, and other office supplies) Immediate increases in EPEAT/Energy Star electronics, recycled content paper, green cleaning products due to revised specifications	3.LLL. 3.MMM 3.NNN 3.OOC 3.PPP.	Purchasing guidelines and policies lead to administrative commitment and enforcement of commitment by central Purchasing Office 1. 50% of electronics purchases are EPEAT certified 80% of paper purchased with at least 30% recycled content 90% of cleaning materials are green certified products Reduction of non- recyclable materials	 3.VVVV. 75% of electronics purchases are EPEAT certified 3.WWWW. 100% of paper at least 30% recycled content 3.XXXX. 100% of cleaning materials green certified products 3.YYYY. Major reduction of non-recyclable materials purchases to enable diversion rate goal above
V. Diskere				diversion rate goal	
				above	
 Develops awareness and engagement programs for dining center customers regarding the impacts of their food choices on their health, as well as environmental, economic, and social conditions of the food system Develops policies and plans for dining centers to increase purchases of environmental/humanely certified and/or locally/community-based products, and increases healthy food options and choices for students (including special dietary needs such as vegan, gluten and other food sensitivities and dietary needs) 	3.FF.	Initiatives to network faculty related to increased capacity of community-based food systems in local area and region	3.QQQ	. Greater awareness of students especially, but also faculty and staff, of where food comes from, cultural significance, diversity of types of foods and ways of producing it	 3.ZZZZ. Reduction in food waste 3.AAAAA. High percentage of food procurement from certified environmental/humane and/or local and community-based
 Works with Manhattan and Kansas River Valley area food system partners/actors to support the development of the regional food system capacity/supply (perhaps through a Manhattan area food policy council, forthcoming food hub for the region, or other forms of partnership) 	3.GG.	Explore grant opportunities for K-State academic researchers/students to	3.RRR	Engaged scholarship, including academic/community/ business	sources 3.BBBBB.Significant levels of service learning,

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 Engage academic units/programs in researching solutions to challenges and impact of efforts Integrate food waste composting with local sources of production and procurement – aligned with increases in procurement from local sources, this would create more closed loops of nutrients and energy in the campus food system 	study and enable growth in capacity for local provisioning of university dining procurement	partnerships, to support development of local and regional food systems capacity that can serve a large portion of university dining procurement	experiential learning, and applied research by students and faculty regarding food procurement and dining services, and their relationships to environmental, social, and economic impacts of food procurement and use
			3.CCCCC. Greatly increased percentage of campus food and nutrient flows that cycle locally/regionally in a closed loop
			3.DDDDD. Significant influence of campus purchasing and food system educational practices on development of local/regional food system capacity and social/economic/enviro nmental health
			3.EEEEE.Healthy food and options for food- sensitivities and special diets readily available throughout campus
			3.FFFFF. Greatly increased awareness of social, environmental, and economic inequities in the food system as well as tradeoffs in seeking long-term sustainable solutions to food system challenges

Goal 4: Leadership

2025 Overarching Goal: Foster administrative leadership to ensure all university programs and departments/units are active partners in accomplishing the university's sustainability goals.

Assumptions:

- Sustainability goals and activities in this plan bridge all major organizational structures of the university as well as ancillary organizations such as KSU Foundation, Alumni Association, and Athletics, so administrative leadership must exist at the highest levels to facilitate partnerships across these silos
- Administrative leadership must be prepared to leverage the professional roles and responsibilities of university faculty and staff in acting on the university's sustainability goals. This includes encouraging and empowering especially upper- and middle-level administrators to embrace sustainability goals as well as develop policies and decision-making processes consistent with these goals
- Relatively permanent and reliable sources of funding are required in order to build programming and initiatives
- Some coordination and programming is most appropriate at a central administrative level through an Office of Sustainability, while other coordination and programming functions are most appropriately organized through academic units and structures or through relevant programmatic administrative structures
- Institutional inertia, silos, competing priorities, and time poverty of faculty and staff are serious barriers to unleashing creative engaged scholarship and teaching, as well as interdisciplinary investments in sustainability scholarly communities

Activities	Key Outcomes Impact					
		Short Term		Intermediate Term		Long Term
I. Leadership:	Wha happ	t do we expect to ben by 2015?	What happ	do we expect to en by 2020?	What happ	a do we expect to en by 2025?
1. Overarching University-Wide: University will pursue activities across all organizational structures of the university to improve its sustainability performance, and representing the spectrum of activities outlined in this strategic plan.	4.A. 4.B.	Initial AASHE STARS assessment performed as university benchmark Governance	4.L.	Consistent improvements in STARS rating score, assessed at least bi- annually	4.V.	Major improvement in STARS or other ratings score, assessed at least bi-annually, and with STARS rating of at
 Create a Presidential Commission on Sustainability for ongoing oversight/guidance of university sustainability goals/priorities, internal institutional advocacy, and accountability to the President 		structure/role/charge established and commission appointed	4.M.	Commission members are acting as effective	4.W.	least Silver by 2025 Commission members
 Work with President's Cabinet to build effective partnerships throughout university and with ancillary university entities (Foundation, Athletics, Alumni Association) 	4.C.	Initial Office of Sustainability 5-year		emissaries throughout the organization for facilitating progress		are acting as effective emissaries throughout the organization for
 b) Utilize AASHE STARS or other widely used sustainability ratings system for benchmarking performance against peer universities 		strategic plan is developed and aligned with targeted roles within this broader		(measured through annual report)		sustainability goals (measured through annual report)
3. Office of Sustainability: Effectively resource and empower the Office for the purposes of:		university sustainability strategic plan	4.N.	President and leadership team are	4.X.	President and
 a) Fostering synergy and linkages among various campus constituencies In order to build awareness, excitement, and social capital within the university related to sustainability 	4.D.	Dedicated FTE allocated to enact roles in strategic plan and either		up-to-date on sustainability progress and opportunities for leadership		leadership team are up-to-date on sustainability progress and opportunities for
b) Coordinating new initiatives		directly supervised or		leadership		leadership
 Facilitating ongoing professional development of faculty and staff through sharing professional development opportunities with campus constituencies 		co-supervised by director of sustainability	4.0.	Large proportion of strategic goals of initial Office of	4.Y.	Large proportion of strategic goals of
d) Assessing university performance relative to its goals	4.E.	I wo or more colleges have explicit		Sustainability strategic plan have been		second Office of Sustainability strategic

e) Cultivating funding for sustainability prog	gramming and initiatives in		sustainability goals and		reached, allowing		plan have been
partnership with senior university admini	stration		outcomes		some flexibility for		reached, driving
					adapting to new		university-wide
4. Senior Administrators and Office of Sus	stainability pursue active efforts	4.⊢.	Major non-academic		emerging		performance
to generate buy-in of sustainability goals at all	levels of the organization		their 2025 plane have		opportunities, and		
a) Sustainability leadership summits/retreat	ts for senior administrators (vice		developed sustainability		new 5-year plan		AASHE STARS U
presidential and associate vice presiden	tial level administrators) as well		developed sustainability		clealed		assessment
as leaders of major campus units (direct	ors)		plans	4 P	50% of K-State 2025		assessment
b) Cultivate buy-in and leadership from dea	ans, department heads, and		pland		college and	4.7.	75% of K-State 2025
academic administrators in the colleges	and academic programs	4.G.	University		department plans		college and department
c) Collaborative professional development	workshops/experiences for mid-		structures/units		have explicit		plans have explicit
level administrators to better inform align	ment of unit goals with university		leveraging OoS for		sustainability goals		sustainability goals and
sustainability goals and to foster adjustr	nents in policies and decision-		facilitation and		and outcomes		outcomes
making processes where needed			coordination of				
d) Identify opportunities and act to hire/app	oint/identify sustainability		sustainability	4.Q.	Major non-academic	4.AA.	New students, faculty,
coordinators within major organizational	structures outside central		performance within		units that did not have		and staff effectively
administration (residential life, student lif	e services, retention programs		operational, academic,		explicit sustainability		
and first year experience, functional unit	s within Facilities, Athletics,		units/functions		round of strategic		of sustainability
Alumni Association, Foundation, and oth	ers identified as needs arise)				planning have now		performance
		4.H.	Initial benchmark survey		updated their plans to		performance
5. Sustainability Center/Institute: Create ad	dministrative structure for		of campus community		include specific	4.BB.	Sustained increase in
interdisciplinary research/teaching institutes a	nd foster development of at least		measuring attitudes		sustainability goals		campus cultural
one major institute/center of sustainability sch	olarship		toward sustainability,				acceptance,
a) Identify key multi-scalar strategic challer	iges that K-State will prioritize as		awareness, and	4.R.	Sustainability		awareness, and
its scholarly focus on sustainability			interest/motivation for		frequently featured in		interest in sustainability
b) Develop process and resources to seed	development of trans-disciplinary		improved performance		annual		challenges and
problem-focused scholarly clusters relate	ed to these strategic challenges	4.1			retreats/workshops of		university performance
c) Work with clusters to further institutional	ize cluster activities into a central	4.1.	Multi-Scalar sustainability challenges		administrative		challenges
institute/center or multiple institutes/cent	ers related to these strategic		identified		nartners in		challenges
challenges			laonanoa		sustainability	4.CC.	At least one major high
d) Outcomes/objectives of clusters/institute	s/centers are to improve	4.J.	Sustainable funding		performance		profile center/institute
research/scholarly output and drive over	arching K-State 2025 goals		model identified for		I		exists and is supported
			enabling sustainability	4.S.	New clusters formed		by multiple funding
6. Celebrate and champion innovative intere-	disciplinary and transdisciplinary		efforts by Office of		and at least one		sources, with
sustainability scholarship, engaged scholarshi	ip		Sustainability, campus		developed into an		capacities for active
a) Leverage Provost's lecture series to exp	licitly support university		operations and		institute or center		campus community
sustainability goals				ит	Increased campus		scholarly challenges of
b) Identify and empower internal university	leaders/champions for innovative		education/engagement	4.1.	cultural acceptance		sustainability and
and inter/trans-disciplinary sustainability	scholarship		programs, and support		awareness, and		modeling
c) Reward innovative sustainability scholar	ship with acknowledgments.		for innovative		interest in		transdisciplinary
additional opportunities, supplemental fu	inding, and/or other incentives		sustainability		sustainability		engaged scholarship.
	0.		scholarship and				At least two major
7. Support/encourage departments/college	es in adjusting their annual		teaching	4.U.	Funding strategies		strategic challenges
evaluation criteria to reward interdisciplinary c	ollaborations and engaged				enacted and funding		addressed by any
scholarship/teaching		4.K.	Plan developed for		secured for increasing		centers/institutes.
			runding key		Capacity of Office of Sustainability and for	חם ג	Sustainable funding
8. Promote Sustainability: Identify and com	municate external		including K-State		targeted investment in	4.00.	continues for stable
opportunities/threats for the value of sustainab	pility in advancing university		including N-Olale				Sommes IN Slaple

 mission – in order to better engage various university leaders and the entire campus community in furthering the goals of this strategic plan 9. Funding: Identify funding for sustainability initiatives and allocate funding for faculty inducements, seed funding for sustainability living laboratory projects, and key administrative support functions for bridging institutional silos 	Foundation's active involvement	key sustainability priorities	operating environment for Office of Sustainability and key university sustainability initiatives
 a) Identify and empower internal university leaders/champions for innovative and inter/trans-disciplinary sustainability scholarship b) Reward innovative sustainability scholarship with acknowledgments, additional opportunities, supplemental funding, and/or other incentives 			

Links to K-State 2025 Ur	niversity Benchmark Metrics,	Common Elements, and [•]	Thematic Goals, (Outcomes, and Metrics
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Links to Benchmark Metrics	Links to Common Elements
 B-1 - Total research and development expenditures B-2 - Endowment pool B-3 - Number of national academy members B-4 - Number of faculty awards B-5 - Number of doctorates granted annually B-8 - Percent of undergraduate students involved in research 	CE-1 - Communications and Marketing CE-2 - Culture CE-3 - Diversity CE-4 - External Constituents CE-5 - Funding CE-6 - International CE-7 - Sustainability CE-8 - Technology

Links to University Thematic Goals, Outcomes, and Metrics									
Links to 2025 Thematic Goals and Metrics	Links to Short Term Outcomes (2011 – 2015)	Links to Intermediate Outcomes (2016 – 2020)	Links to Long Term Outcomes (2021 – 2025)						
T1 - Research, Scholarly and Creative Activities, and Discovery (RSCAD) Theme 1 Metrics: T1-1 - # of interdisciplinary research projects, institutes, and centers T1-2 - Total sponsored extramural funding expenditures T1-4 - # of refereed scholarly publications per academic year and allocated faculty member T1-5 - Total international research and development expenditures	 T1-A - Increased intellectual and financial capital to support RSCAD T1-B - More clusters/centers of collaborative RSCAD focus T1-C - Increased funding for investigator-based research, research centers, and graduate training grants T1-F - Enhanced and systematic approach for UG research T1-G - Successful recruitment, retention, evaluation, compensation, and rewards strategies in place to support RSCAD needs T1-H - Enhanced visibility and appreciation for research, discovery, and scholarly and creative activities 	 T1-I - Intellectual and financial capital in place for expanded RSCAD efforts T1-J - Greater proportion of nationally and internationally recognized award- winning faculty in RSCAD programs T1-K - Nationally and internationally recognized research centers T1-L - Recognized for prominent and productive placement of our graduates T1-M - Increased participation by undergraduates in expanded opportunities in research 	 T1-N - Fifty nationally recognized K-State researchers, a high proportion of which are members of their national academies T1-O - Extramural funding competitive with our benchmark institutions T1-P - Research and development expenditures competitive with benchmark institutions T1-Q - Competitive amongst our peers in the percentage of undergraduates involved in research 						

Links to University Thematic Goals, Outcomes, and Metrics					
Links to 2025 Thematic Goals and Metrics	Links to Short Term Outcomes (2011 – 2015)	Links to Intermediate Outcomes (2016 – 2020)	Links to Long Term Outcomes (2021 – 2025)		
T2 - Undergraduate Educational Experience (UEE)	T2-B - Engaged students benefitting from high impact educational practices used by excellent faculty and staff across the university	T2-I - Integrated learning communities experienced by students, faculty, and staff that promote student success within a culture of excellence	T2-O - An undergraduate educational experience recognized as one of the best among the nation's Top 50 Public Research		
 T2-1 - # and % of undergraduate students participating in a meaningful international experience T2-2 - # and % of undergraduate students completing an experiential learning experience T2-5 - # of students awarded national and international prestigious scholarships T2-6 - % of undergraduate enrollment by demographic group T2-7 - Student satisfaction and utilization rates 	 T2-C - Increased participation by undergraduates in expanded opportunities for meaningful research T2-D - Successful integration of undergraduate education and meaningful research is standard practice T2-E - Effective evaluation practices that recognize and reward teaching, advising, and life-long learning/professional development T2-G - Successful recruitment and retention strategies that address our 	 T2-L - All UG students engaged in a diversity of experiences that expand their viewpoint T2-M - Increased undergraduate contributions in the creation of scholarship through research 	Universities T2-Q - Freshman to Sophomore retention ratios comparable to benchmark institutions		
T3 - Graduate Scholarly Experience	T3-C - Engaged graduate students integrated in university life with	T3-I - Increased participation by our graduate students in unique high level	T3-N - National and international reputation for outstanding graduates		
Theme 3 Metrics:	enhanced visibility and appreciation	learning and experiential training	with demonstrable career success		
 T3-1 - # and % of graduate students with assistantships, endowed scholarships, and fellowships T3-2 - Total funds awarded for graduate assistantships, endowed scholarships, and fellowships T3-3 - # and % of graduate programs offering competitive compensation and support packages T3-4 - # of private/public sector partnerships supporting graduate experiential training opportunities 	T3-G - Broader spectrum and greater overall number of courses offered at the graduate, and especially at the PhD level T3-H - Expanded partnerships with industry and government to provide high level learning and experiential training opportunities for graduate students	 T3-J - Expanded reputation for outstanding graduates with the critical skill sets needed to excel in their careers in a global environment T3-L - Increased number of nationally and internationally recognized award- winning graduate faculty T3-M - Increased number of Doctorates Awarded 	T3-O - World-class reputation as a preferred destination for outstanding graduate students		

Links to University Thematic Goals, Outcomes, and Metrics					
Links to 2025 Thematic Goals and Metrics	Links to Short Term Outcomes (2011 – 2015)	Links to Intermediate Outcomes (2016 – 2020)	Links to Long Term Outcomes (2021 – 2025)		
T3-5 - # of graduate students participating in a unique high level learning and experiential training					
T3-6 - # of graduate terminal degrees awarded					
T3-7 - Total graduate students enrolled by demographic group and degree type					
T3-8 - Graduate student satisfaction and utilization rates					
T4 - Engagement, Extension, Outreach and Service	T4-A - Enhanced integration between academics and student service learning	T4-H - Exposure on a national level as a leader/partner engaged in significant social, political, health,	T4-N - Nationally recognized as a leader in and model for a re-invented and transformed land -grant		
Theme 4 Metrics:	T4-B - Increased participation by		education, and engagement		
T4-1 - # and % of undergraduate students participating in engagement/service learning	undergraduates in expanded opportunities for meaningful Engagement experiences	T4-I - All undergraduate students engaged in at least one engagement /service learning project	T4-O - Nationally and internationally recognized as leaders in		
T4-2 - Total extramural-funded expenditures for Engagement initiatives at the local, state, national, and international level	T4-C - Increased recognition of our services as a source of expertise, information, and tools for disciplines	T4-J - Increased number of graduate students involved in Engagement	Engagement on a global scale T4-P - Recognized as a leader in Engagement reaching both rural and		
T4-3 - # of partnerships by sector and geographic boundary supporting collaborative research, education, and engagement	worldwide T4-D - Increased numbers and diversity of faculty and staff participating in Engagement	T4-K - Increased appreciation by K- State graduates for lifelong involvement in engagement and service	urban communities		
T4-4 - # of engagement activities and programs disaggregated by geographic boundaries	T4-F - Recognition as leaders in Engagement within our state and	T4-L - Increased capacity to respond to emergencies worldwide			
T4-5 - # of participants involved in community-based research and outreach projects	nation nation resource and cts nic impacts on rural and nities in Kansas nation T4-G - Enhanced visibility and appreciation for Engagement and its interconnectedness with research and education within our university community	T4-M - Preferred destination for faculty, staff, and students who value Engagement as integral to their academic and personal lives			
T4-6 - Economic impacts on rural and urban communities in Kansas					

Links to University Thematic Goals, Outcomes, and Metrics					
Links to 2025 Thematic Goals and Metrics	Links to Short Term Outcomes (2011 – 2015)	Links to Intermediate Outcomes (2016 – 2020)	Links to Long Term Outcomes (2021 – 2025)		
T5 - Faculty and Staff Theme 5 Metrics: T5-1 - # of national and international faculty awards T5-2 - # and % of faculty with endowed chairs, professorships, and fellowships T5-3 - Competitive compensation packages for faculty and staff T5-4 - # and % of faculty and staff participating in international experiences T5-7 - % of faculty and staff reporting satisfaction in the work environment	T5-C - Career-long learning recognized by the university and its employees as a shared value and responsibility T5-D - Effective evaluation processes that result in accountable faculty and staff with a clear understanding of their job expectations and how they contribute to the University's mission	T5-F - Faculty and staff current with developments in their fields and the skills needed to achieve excellence in performing their jobs T5-G - Successful recruitment and retention of a talented and high performing, diverse workforce	T5-H - Talented and high performing, diverse workforce recognized for excellence and award-winning faculty and researchers		
 T6 - Facilities and Infrastructure Theme 6 Metrics: T6-2 - Total expenditures for physical facilities and infrastructure projects T6-3 - Total annual expenditures for deferred maintenance T6-4 - Total funding available to support facilities and infrastructure needs T6-5 - % of faculty, staff, and students reporting satisfaction with facilities and infrastructure 	T6-A - Responsive, timely, and strategic facilities services aligned with campus operational needs as well as future planning and implementation	T6-E - Enhanced campus community experience and collaborative learning and working environments promoted by facilities that support multidisciplinary work and integrated interaction between students, faculty, researchers, staff, and administrators T6-F - Efficient, reliable, and cost- effective central and building utilities with the capacity for expansion as needed to support campus needs and guarantee the safety, comfort, and integrity of our research, animal, and human environments	 T6-I - Well-maintained buildings, utilities, IT infrastructure, and grounds consistent with the expectations and image of a highly ranked land grant research and teaching institution T6-J - An excellent campus community experience supported by facilities and landscapes that enhance social interaction, learning and collaboration T6-K - Signature facilities that promote collaborative learning and working environments, multidisciplinary work, and integrated interaction between students, faculty, researchers, staff, and administrators 		

Links to University Thematic Goals, Outcomes, and Metrics						
Links to 2025 Thematic Goals and Metrics	Links to Short Term Outcomes (2011 – 2015)	Links to Intermediate Outcomes (2016 – 2020)	Links to Long Term Outcomes (2021 – 2025)			
T7 - Athletics	 T7-B - Enhanced learning environments and relationships promoted by facilities and integrated activities that support interaction between students, student-athletes, and the campus community T7-C - Enhanced integration between academics and athletics 					

What resources and/or opportunities <u>exist</u> for your Common Element to achieve its vision and outcomes? Response:

- Office of Sustainability
- Natural Resources and Environmental Science Secondary Major
- Temporary funding for Green Action Fund
- Energy and Environment Program in Division of Facilities
- University Utility Budget
- Various sustainability-relevant courses and academic/engagement programs throughout the university

What resources and/or opportunities are needed for your Common Element to achieve its vision and outcomes?

Response:

In order to accomplish the goals of this sustainability strategic plan, the university will need additional resources in the following areas:

- Academics:
 - o Funding incentives for faculty participation in sustainability through research and/or curriculum development
 - o Coordination support for interdisciplinary curriculum and research and general education conversations, and possible program development
 - Additional support and encouragement for the adaptation/evolution of Natural Resources and Environmental Science Secondary Major into more robust university-wide sustainability academic program
 - o Staff and funding to establish and grow the academic center/institute for interdisciplinary sustainability research/scholarship
- Engagement:
 - Funding and coordination for student extra-curricular engagement programs
 - Staff coordination of sustainability content/themes in recruitment/orientation programs
 - o Staff coordination for increased participation by campus community in behavioral efforts to reduce waste, save energy, purchase wisely, etc
 - Support for engaging communities at multiple scales in the spirit of the Carnegie Definition through Center for Engagement and Community Development as well as K-State Research and Extension with K-State academic expertise in sustainability
- Facilities/Operations:
 - Funding for buildings retrofits/renovations
 - Funding for analysis/auditing of energy/water performance, and for investments in improvements
 - Funding for multi-scale renewable energy projects, tied wherever possible to academic programs/research
 - Funding for grounds improvements/retrofits connected to the campus master plan as well as more specific items in this plan
 - Funding and staff for expanded recycling programs
 - o Investment in public transit, bike/ped infrastructure, and other multi-modal transportation system needs
- Leadership:
 - Funding and staff for Office of Sustainability
 - Funding for recognition and incentive programs by central administration
 - Funding for lecture series, retreats, and other community programming
 - o Dedicated time and attention by senior administrators in addition to Office of Sustainability capacities

How do you propose to acquire the resources needed for your Common Element to accomplish its vision and outcomes? Response:

- Ask central administration for financial and organizational support for the above needs
- Student privilege fee dedicated to sustainability projects and financial support for some programming (i.e. Green Action Fund)
- Operational savings through efficiencies (i.e. reduced energy use, reduced maintenance, labor savings)
- Development of external philanthropic funding sources through alumni and corporate relationships, in coordination with the KSU Foundation
- Engage Office of Research in exploration of allocation of small % of university "indirect" funds from extramural research related to sustainability toward university sustainability programming needs
- Retain existing budgetary commitments for Office of Sustainability
- Examine existing college fees (or new ones) as mechanism of funding support for NRES Secondary Major and/or any new interdisciplinary sustainability academic program(s)