### **Student Sustainability Council Meeting**

### 11 November, 2015

Attendance: Ellen Green, Danielle Empson, Karina Fuentes, Johnathan Elliot, Jerrod Penn, Hannah Penn, William Varney, Sadie Meyers, Michaela Rogers, Richard Grewelle, Aaron Stromberg, Alex miller

Absent: Lauren Thomas, Sam Stromberg, Caroline, Tina(excused)

Guests: Alex, Ash, Chhaya Kolavalli,

- 17:01 Meeting begins by confirming the last meeting minutes
- 17:03 Motion to approve last meeting minutes (Ellen, Johnathan 2<sup>nd</sup>)
- 17:03 Agenda run through
- 17:03 Campus kitchen proposal begins (presenting: Ash)
- 17:08 Proposal ends
- 17:08 Q&A begins
- 17:12 Q&A ends
- 17:12 Motion to move into discussion (Danielle, William 2<sup>nd</sup>)
- 17:18 Motion to amend (Danielle, Michaela 2<sup>nd</sup>)

**Amendment** – Mention of the SSC's funding/involvement should be made at the conference in verbal form as well as on presentation documentation.

17:19 – Motion to vote on amendment (Danielle, Aaron 2<sup>nd</sup>)

Vote on amendment: yes – 12 no – 0 (Amendment Passes)

17:19 – Discussion ends

17:20 – Motion to vote on proposal as amended (William, Ricky 2<sup>nd</sup>)

Vote on Campus Kitchen proposal: yes -12 no -0 (proposal approved)

- 17:22 Proposal for DOPE Begins (presenting: Chhaya Kolavalli)
- 17:32 DOPE proposal Ends

- 17:32 Q&A Begins
- 17:37 Q&A ends
- 17:40 Motion to begin discussion (William, Danielle 2<sup>nd</sup>)
- 17:50 Motion to extend discussion (William, Jerrod 2<sup>nd</sup>)
- 17:53 Motion to extend discussion (Danielle, Johnathan 2<sup>nd</sup>)
- 17:56 Motion to extend by five minutes (Danielle, Ellen 2<sup>nd</sup>)
- 18:01 Motion to extend discussion five minutes (Danielle, Aaron 2<sup>nd</sup>)
- 18:06 Motion to extend discussion five minutes (Danielle, Johnathan 2<sup>nd</sup>)

#### Amendments:

- Logos will posted to your website and any promotional materials. PEWG will allot time for an SSC Delegate to speak briefly at the plenary panel and keynote presentation. PEWG will follow SSC recommendations to expand outreach for publicizing the event across the campus community. Some of the initial recommendations for outreach/publicity outlets include posting the CFP and other conference announcements to:
- OrgSync (https://orgsync.com/login/university-of-kentucky)
- UKnow (<u>http://uknow.uky.edu/calendar</u> to submit to campus calendar)
- SSC FB page (<u>https://www.facebook.com/pages/University-of-Kentucky-Student-Sustainability-</u> Council/265855510093519)
- Graduate Student Congress (GSC) FB page (https://www.facebook.com/groups/2251426745/)
- GSC List-Serve (Heather Yonutas: heather.yonutas@uky.edu)
- Grad School List-Serve (Erin Shoot: <u>erin.shoot@uky.edu</u>)
- •

#### a. Vote on amendment 3: yes – 12 no – 0 (Amendment passes)

- 2. The SSC will reduce funding amount by \$3,045.
  - a. Vote on amendment 2: yes 12 no 0 (Amendment passes)

18:11 – Motion to vote on proposal as amended (Aaron, Hannah 2<sup>nd</sup>)

#### Vote on DOPE proposal as amended: yes - 12 no -0 (proposal approved)

- 18:13 No presenter for the water block proposal
- 18:13 Motion to discuss Water block proposal (Johnathan, Jerrod 2<sup>nd</sup>)
- 18:22 Motion to vote on water block proposal as is (Jerrod, Aaron 2<sup>nd</sup>)

#### Vote on water block Proposal: yes – 0 no – 12 (proposal not approved)

- This proposal was not approved because the voting body feels that this particular project is lacking in sustainable elements related to the University of Kentucky, as well as being rather vague in terms of details in the proposal. Also, this proposal is inappropriate for the council to fund, but a more fitting place would be to apply for the sustainability challenge grant.
- 18:26 outreach committee update
- 18:46 development committee update
- 18:52 Motion to vote on group standings amendment to constitution (William, Jerrod 2<sup>nd</sup>)

Vote on group standing amendment to constitution: yes - 12 no -0 (motion passes)

18:58 – motion to vote on revised proposal application form (Aaron, Danielle 2<sup>nd</sup>)

Vote on revised proposal application form: yes – 12 no- 0 (Motion passes)

19:01 – Motion to vote on opening spring elections tomorrow 11/11/2015

Vote: yes – 12 no – 0 (Motion passes)

### University of Kentucky Student Sustainability Council 2015-2016 Grant Application

- 1. Name: Ash Thenappan
- 2. Email: ashthenappan@gmail.com
- 3. UK Affiliation: Bachelor of Science in Biology, Class of 2016, President of the Campus Kitchen at the University of Kentucky
- 4. **Proposed Project Title**: Intergenerational Mentoring Program: Connecting Students and Older Adults
- 5. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.):

The Department of Dietetics and Human Nutrition, School of Human Environmental Sciences, College of Agriculture, Food and Environment

- 6. Total Amount Requested from the Council: \$5000
- 7. Would you like to make a presentation to the Council before your proposal is reviewed? Yes.
- 8. What is the focus area(s) of your project? Local Environment Food Waste Reduction

Recycling • Energy Conservation • Transportation
 Climate Change
 Agriculture/gardening • Local Environment • Water •
 Behavioral Change • Renewable Energy • Other (Please
 Describe): \_\_\_\_\_\_

9. Please name any other project leaders:

Name Amanda Hege
------------------

0

Title & department	Director of Community Outreach, Department of Dietetics & Human Nutrition					
Project Role	Staff Advisor					
Email	amanda.hege@uky.edu					
Name	Kendra Oo					
Title & department	Student					
	Updated 11/4/14					
Project Role	Development Chair, The Campus Kitchen at the University of Kentucky					
Email	kendracan@uky.edu					
Name	Dr. Tammy Stephenson Assistant Professor & Director of Undergraduate Studies					
Title & department						
Project Role	Faculty Advisor					
Email	tammy.stephenson@uky.edu					

### 10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social).

The Campus Kitchen at the University of Kentucky (CKUK), an affiliate of the national The Campus Kitchens Project (CKP), is an on-campus student service organization that provides a sustainable approach to reducing food waste and providing healthy meals to those struggling with hunger.

CKUK's student volunteers will prepare home-cooked meals from recovered food and handdeliver them to 30 older adults in Lexington, KY through an Intergenerational Mentoring Program. A bag of groceries will be assembled based on the nutritional needs of older adults. The groceries will accompany the meal and companionship to 5-10 home-bound older adults. Students and adults will continue to build relationships by interacting on a weekly basis.

The goals are to promote healthy eating, community engagement, and environmental sustainability while focusing on improving social cohesion and food security in our local Lexington community and campus through student-led service.

To achieve this goal, the Campus Kitchen will:

• Repurpose food waste from UK Dining, UK South Farm, other on-campus dining facilities (i.e. Greek houses with in-house kitchens, athletic events), and off-campus restaurants and

grocery stores to reduce the environmental food print of discarded food in Lexington. (Environment, Economic)

- Deliver, cook and prepare well-balanced group meals with older adults through an already established relationship with Lexington Housing Authority. (Economic, Social)
- Provide groceries to 5-10 home-bound, food insecure older adults once a week for 36 weeks, which meet the Dietary Guidelines through an already established referral process. (Economic)
- UK students will spend 15 minutes visiting the home-bound older adults to develop relationships and provide companionship, nutrition education, recipes, and cooking tips. (Social)

Our project is economically sustainable by utilizing fresh produce gleaned at the UK South Farm, the on-campus Horticulture Club, and recovering food from dining facilities to deliver healthy meals that meet dietary guidelines for our clients; this comes at no cost to them or our partner organizations. The social aspect of our project is also sustainable because the student leaders and volunteers engage with clients by cooking and eating dinner together.

### 11. Name any anticipated project affiliates and describe their support, including any financial, matching or in-kind support.

Project affiliates	Amount of Support (\$)	Description	
Faculty and staff at the University of Kentucky	\$ 2000	Annual pledge contributions.	
Food Connection	\$ 1500	Funding to support student travel to conferences.	
Fundraising	\$ 200	Donations raised through 'Raise the Dough', a fundraising competition with other Campus Kitchens across the nation.	
School of Human Environmental Sciences	In-kind	Provide storage space for supplies and perishable food items.	
Department of Dietetics and Human Nutrition (DHN)	\$ 500 And In-kind	Monetary support for student travel. In-kind support to utilize the kitchen space in the Department of Dietetics and Human Nutrition to prepare healthy meals. DHN Faculty and staff share their expertise and assist in strategic planning, budgeting, and administrative support.	
UK Dining/Aramark	In-kind	Recovered food donations.	

GleanKY	In-kind	Gleaned produce donations.

#### 12. Who is the primary target population of your project? <u>Community</u>

○ UK (general)
 ○ Community ○ Undergraduates
 ○ Faculty ○
 Graduates
 ○ Other (Please Describe):

In 250 words or less, please answer the following questions.

# **13.** Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).

The 2015-2016 CKUK Executive Committee (EC) is comprised of eight undergraduate students with multi-disciplinary majors (Appendix B). The EC manages a team of nine additional student shift captains who lead the recovery, cooking, and delivery shifts during the week (Appendix B). Last year, they recruited, trained, and led over 200 volunteers including UK undergraduate and graduate students from diverse areas of study and local high school students.

The CKUK Advisory Board includes representatives from the Department of Dietetics and Human Nutrition, Lexington Senior Center, Catholic Action Center, Big Blue Pantry, Lexington Housing Authority, GleanKY, and Martin Luther King Academy of Excellence (Appendix C).

Last year, students served 2721 meals to those experiencing hunger in Lexington; 40% of meals were served to older adults. In collaboration with Lexington Housing Authority, the older adults experienced a 52% decrease in social isolation and 45% of them ate/drank more fruits, vegetables, low-fat milk, lean meat, whole grains, and water as a result of the program. One meal recipient shared the impact of the program on her life and stated, "I am now able to eat more fruits and vegetables. This program changed my life."

We will expand the program to increase the number of students engaged by 20%, reach 10% more clients, and incorporate hands-on cooking with the group meals. We will continue to decrease social isolation and improve older adult's accessibility and confidence to prepare healthy meals.

### 14. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?

The Campus Kitchen's Executive Committee develops their professional and technical skills by leading by example, developing an annual work plan, and meeting weekly to report on progress, successes, and challenges (Appendix A).

The role of the President is to serve as the manager and advocate for the organization. Student leaders pay attention to detail by documenting all meetings, setting weekly meeting agendas, and holding the team accountable by submitting monthly reports to the national Campus Kitchens Project. They serve as public relations specialists, promoting strong relationships with partners and donors. Through effective communication, they recruit volunteers, fundraise, and implement cooking classes. The Shift Captains plan and organize food recoveries, train volunteers, and complete paperwork. Students think creatively to determine meals with unpredictable, unique food items. CKUK has over 200 volunteers who follow food safety protocol, recover food, prepare meals, interact with community members, and engage with their peers.

Student leaders present professional poster presentations at conferences, such as the 2015 Universities Fighting World Hunger Summit in Guelph, Ontario, Canada. Students present on webinars hosted by the Campus Kitchens Project about gleaning and recovering food on campus.

CKUK cultivates leaders who can develop local solutions to the problem of hunger in Lexington. By taking the initiative to run a community kitchen, students establish entrepreneurial and leadership skills, along with a passionate commitment to serve their community, that they will carry with them into future careers.

### **15.** Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

The Campus Kitchen at the University of Kentucky received a \$4000 Student

Sustainability Council Grant for academic year 2014-2015. The grant funds supported CKUK in developing relationships with and purchasing equipment for recovering on-campus food waste from UK Dining and the UK South Farm. In 2014-2015, CKUK recovered 2190 pounds of prepared food, received 940 pounds of donated food, and gleaned 553 pounds of fresh produce. UK students prepared and served 2721 meals in the community and engaged and empowered individuals served with the skills, knowledge, and confidence to live a healthy life.

## 16. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

Time	Activity
November, 2015	Recruit, interview, and select a Senior Hunger Fellow.
December, 2015	Evaluate the effectiveness of the fall 2015 operations of the Intergenerational Mentoring Program by discussions with UK
	students and Lexington Housing Authority staff. Adjust the program plan and evaluation, as appropriate.

January	<ul> <li>Coordinate with Lexington Housing Authority to recruit meal recipients.</li> </ul>
	<ul> <li>Spring semester shifts begin.</li> </ul>
	<ul> <li>Deliver 15 group meals and 5 home-delivered meals with groceries to older adults per week.</li> </ul>
	<ul> <li>Collect pre-evaluation surveys from older adults.</li> </ul>
February	Conduct 2 cooking classes with older adults.
March	Recruit and elect the 2016-2017 Executive Committee. Conduct 2 cooking classes with older adults.
April	Conduct 2 cooking classes with older adults.
Мау	Host a volunteer appreciation dinner and award ceremony.
	Conduct 1 cooking class with older adults.
June	Summer shifts begin. Deliver 17 group meals and 7 homedelivered meals with groceries to older adults per week.
July	Lead 1 grocery store tour with older adults.
August	Executive Committee Fall Retreat.
	Conduct 1 cooking class with older adults.
September	<ul> <li>Fall shifts begin. Deliver 20 group meals and 10 homedelivered meals with groceries to older adults per week.</li> </ul>
October	Conduct 2 cooking classes with older adults.
November	Deliver Thanksgiving baskets to 30 older adults served.
	Conduct 2 cooking classes with older adults.
December	Collect post-evaluation surveys from older adults.

### 17. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)?

This project does not require additional external or internal approval.

#### 18. If applicable, what is the potential for long term self-sustainment or long term effects?

The elderly are at increased risk of malnutrition. The CDC estimates that 2000 to 3000 older adults die each year as a result of malnutrition. Malnutrition among seniors also increases the risk for injury, illness, and premature institutionalization, all of which increases financial burdens. Nearly 1 in 12 seniors living in the United States have limited or unstable access to enough food to sustain a healthy lifestyle. About 30% of seniors have to choose between paying for food and paying for medical care. Food insecurity increases the risk of chronic diseases, including cardiovascular disease,

hypertension, diabetes, cancer, and osteoporosis. When compared to food secure seniors, food insecure seniors are 60% more likely to experience depression, 53% more likely to experience a heart attack, 52% more likely to develop asthma, and 40% more likely to experience congestive heart failure. In addition to undernutrition and food insecurity, older adults are also more vulnerable to social isolation and poor mental well-being. Seniors who are socially isolated have more physical and mental health issues and a lower perceived health status than those who are socially connected. Further, social isolation negatively affects dietary intake.

Reducing food waste has a tremendous impact on the environment and economy and also allows us to deliver healthy meals to those seniors experiencing food-insecurity. We empower the community with nutrition education and cooking skills to make healthy meals, increasing their knowledge of balanced diets. One of the meal recipient mentioned, "I now eat better and have new friends."

A clear relationship exists between health status, nutritional intake, and social connectedness among the elderly. Increase in both calorie and protein intake improve nutritional status and dietary intake that may translate into a better quality of life and health outcomes. Quality of emotional functioning also improves along with less loneliness and social isolation factor. Without any additional home-delivered meal cost, the costsavings of the program is tremendous when compared to the cost of malnutrition. The home-delivered meal program is a cost- effective method of improving nutritional health and social well-being, mental health problems and physical health problems.

19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

Expense	Description	\$ amount
Senior Hunger Fellow	<ul> <li>CKUK will recruit through current student leadership as well as open the opportunity to all UK students for a Hunger Fellow who will mobilize others to be involved in programmatic efforts.  <ul> <li>Spring 2016: \$250 stipend</li> <li>Fall 2016: \$250 stipend</li> </ul> </li> </ul>	\$ 750
Operations Support		
	Supplies including insulated bags, foil, and individual meal boxes.	\$ 1000

Distribution and Delivery Expense	Fuel Reimbursement \$ 100 / semester	\$ 300
Conference Attendance	Students will attend the Campus Kitchens Project Boot Camp and the Universities Fighting World Hunger Summit to present about the Intergenerational Mentoring Program. \$250 / student / conference	\$ 3000
	TOTAL	\$ 8210
	TOTAL SPONSORED BY SSC	\$ 5000

## **20.** You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Attachments Include:

- A. The Campus Kitchen at the University of Kentucky By-laws
- B. Executive Committee Roster
- C. Advisory Board Roster
- D. Letter of Support, Lexington Housing Authority
- E. Letter of Support, GleanKY

Submit completed project proposals and/or questions about proposal process to Shane Tedder at <u>shane.tedder@uky.edu</u>.

Project proposals will be considered on a rolling basis and must be received 1 week prior a scheduled meeting in order to be considered for the agenda. If SSC and applicant are able to confirm that project, if funded, would be in compliance with University Business Procedures. The Fall 2015 meeting schedule is listed below:

#### Meeting date Proposal due date

Friday, September 18 Friday, September 11

October 13, 2015	October 6, 2015
October 27, 2015	October 20, 2015
November 10, 2015	November 3, 2015
November 24, 2015	November 17, 2015
December 8, 2015	December 1, 2015

### Revised funding request

Expense	Expense Description		
Senior Hunger Fellow			
	• Spring 2016: \$250 stipend		
	• Summer 2016: \$250 stipend		
	• Fall 2016: \$250 stipend		
Operations Support			
	\$ 12 / person / week:		
	• Spring 2016: \$720		
	• Summer 2016: \$1008		
	• Fall 2016: \$1440		
	Supplies including insulated bags, foil, and individual meal boxes.	\$ 1000*	
Distribution and Delivery	Fuel Reimbursement	\$ 300*	
Expense	\$ 100 / semester		
Conference Attendance	Students will attend the Campus Kitchens Project Boot Camp and the Universities Fighting World Hunger Summit to present about the Intergenerational Mentoring Program.	\$ 3000	
	\$250 / student / conference		
	TOTAL	\$ 8210	

	TOTAL SPONSORED BY SSC*	\$ 5000*





### The Campus Kitchen at the University of Kentucky

### **By-Laws**

#### ARTICLE I: NAME AND PURPOSE

<u>Section I.</u> The name of this Campus Kitchens Project, located at the University of Kentucky, is the Campus Kitchen at the University of Kentucky (CKUK).

<u>Section II</u>. The purpose of this organization shall be to provide a sustainable approach to reducing food waste on college campuses while also providing healthy meals to those struggling with hunger.

<u>Section III</u>. The purpose of the Campus Kitchen Executive Committee and Leadership Team is to provide students with the opportunity to take on a position of higher responsibility, leadership, and impact in the Campus Kitchen. Students will take an active role in the everyday activities, as well as the growth and continuation of the Campus Kitchen, while learning the basics of nonprofit management and organizational structure.

#### ARTICLE II: OFFICERS AND DUTIES

<u>Section I.</u> The Executive Committee is elected and officers must be at least sophomores in good standing at the University of Kentucky. He/she must have previously served CKUK.

#### A. President

a. The role of the President shall be to preside over all meetings and be the spokesperson for CKUK by representing and advocating for the organization.

#### B. Secretary

- a. The role of the Secretary is to send the meeting agenda by email to all at least 24-hours prior to the meeting, document all meetings, and keep accurate records of attendance.
- b. He/she will review paperwork, provide paperwork training to volunteers, and complete and submit monthly reports by the 5<sup>th</sup> of every month to the Campus Kitchens Project.
- C. External Relations Chair will lead a committee that will:
  - a. Recruit regular volunteers for the organization through e-mails, flyers, newspaper, word of mouth, and more. Recruit volunteers for special events, holidays, and summer shifts. Maintain the online Volunteer Hub.
  - b. Coordinate food pick-ups on and off campus and reach out to new partners specifically for fresh produce and protein sources. D. **Internal Relations Chair** will lead a committee that will:
  - a. Communicate effectively to the CKUK volunteers, stakeholders, partners, Advisory Board.

- b. Check the G-mail account and respond within at least 48 hours.
- c. Act as the 'point person' for on-call pick-ups and organize and manage on-call volunteers to pick-up last-minute food items.
- E. Development Chair will lead a committee that will:
  - a. Coordinate fundraising initiatives on and off campus by seeking out partners within community (Greek life, other service groups, local businesses, campus events including K-week).
  - b. Plan for special events for clients, volunteers, and fundraising. Coordinate menu, extra supplies, entertainment, education initiatives, advertising, and connect with existing student and community groups. MUST facilitate TurkeyPalooza and Volunteer Appreciation Dinner.
  - c. Promote CKUK through social media including Facebook, Twitter, and Instagram by posting weekly images and updates.
- F. Operations Coordinator will lead a committee comprised of:
  - a. Cooking and Recovery Shift Captains who are responsible for leading shifts by:
    - i. Reviewing the cooking/recovery projects at the beginning of the shift;
    - ii. Checking inventory of food supplies, prepared meals, insulated bags, hotel pans, and all other resources;
    - iii. Taking attendance of volunteers and getting contact information for new volunteers; a
    - iv. Assigning projects to volunteers;
    - v. Supervising the heating, storing, and transporting of food by check temperatures of food;
    - vi. Completing all necessary paperwork for the shift accurately;
    - vii. Assuring all shift tasks are completed, including cleaning;
    - viii. Acting as a liaison; ix. Taking pictures and provide them to the Development Chair within 48 hours of the shift;
    - x. Other responsibilities that may arise.
- G. Programming Coordinator will lead a committee that will:
  - a. Lead, organize and plan all Delivery Shifts and include all of the Delivery Shift Captains.
  - b. Organize, plan, and implement Beyond the Meal Programs including cooking classes, education materials, education content, and/or grocery store tours for the clients we serve.

#### H. Faculty/Staff Lead

- a. The role of the DHN Faculty/Staff Lead is to engage faculty and staff at the University of Kentucky with CKUK.
- b. He/she will meet with the members of the Executive Committee weekly to provide guidance and direction, will assist with the election process and lead the Advisory Board meetings.

Section II. The Executive Committee (EC) is expected to adhere to several standards:

A. Attend all mandatory meetings, retreats, trainings, and events.

- B. A maximum of 2 meetings per semester may be missed, unless otherwise voted and approved by the Executive Committee.
  - a. If an EC member cannot attend a meeting, he/she will email the secretary 24hours prior to the meeting and include the name of the individual that will attend in his/her place.

By-Laws Last Updated: May 27, 2015

- C. A cumulative GPA of 2.5 must be maintained in order to remain eligible to be on the committee.
- D. Schedule and attend a weekly meeting with the DHN faculty/staff lead.
- E. Respond promptly (within 48-hours) to all forms of communication, including but not limited to e-mail, text messages, phone-calls, and GroupMe messages. F. Serve an academic year.

<u>Section III.</u> Each EC member will be the leader of a sub-committee. He/she will lead the subcommittee meetings in planning and organizing those activities needed to fulfill his/her responsibilities.

A. The sub-committee shall meet bi-weekly.

#### ARTICLE III: MEETINGS

Section I. The Executive Committee will meet weekly:

- A. The day of week shall be on Wednesday.
- B. The time shall be 6:00 PM.

<u>Section II.</u> The President shall preside over all meetings. If the President cannot be in attendance, the Secretary shall preside.

#### **ARTICLE IV: ELECTION OF EXECUTIVE COMMITTEE**

<u>Section I.</u> Elections for the offices of the Executive Committee will be held in March of the spring semester.

- A. Elections will include an application process with a paper application and an interview with the faculty/staff lead.
- B. The newly elected officers will assume their official duties at the last meeting of the spring semester.
- C. The President-elect will lead the spring retreat.

#### ARTICLE V: ADVISORY BOARD

A. The role of the Advisory Board is to support the efforts of CKUK by offering advice, dynamic perspectives, and assistance for anything related to marketing, strategic direction, program effectiveness, fundraising, and quality improvement.

Section I. Advisory Board will meet bi-annually.

Section II. The Advisory Board must attend a pre-defined section of the mandatory retreat.

#### **ARTICLE VI: AMENDMENTS**

Section I. These By-Laws may be amended by a two-thirds majority vote of the Executive Board.

A. Proposed amendments must be submitted to the Secretary at least 48-hours prior to the Executive Board meeting. The proposed amendment will be sent out by the Secretary to the Executive Board to review before the meeting.

By-Laws Last Updated: May 27, 2015



#### 2015-2016 Executive Committee

				1
Name	Role	Major	Year	Email Address
Ash Thenappan	President	Biology	Senior	ashwatha.the
Anna Roe	Secretary	Dietetics	Senior	a.roe@uky.ed
Madison Copher	External Relations Chair	Dietetics	Junior	madison.copt
Derian Taylor	Internal Relations Chair	Agriculture Biotechnology	Senior	derian.taylor@
Kendra Oo	Development Chair	Dietetics	Junior	kendracan@u
Connor VanMeter	Operations Coordinator	Agriculture Biotechnology	Sophomore	connor.vanme
Chloe Crumpton	Programming CoCoordinator	Kinesiology	Junior	chloe.crumpto
Emily Crocetti	Programming Co- Coordinator	Dietetics	Senior	Emily.crocetti



# University of Kentucky Student Sustainability Council 2015-2016 Grant Application

- 1. Name: Chhaya Kolavalli, UKPEWG Treasurer
- 2. Email: <a href="mailto:crkolavalli@gmail.com">crkolavalli@gmail.com</a>
- 3. UK Affiliation: PhD Student, Department of Anthropology
- 4. Proposed Project Title: Dimensions of Political Ecology 2016 Conference

**5. If applicable, please provide the sponsoring or overseeing organization**: University of Kentucky Political Ecology Working Group and the Department of Geography

6. Total Amount Requested from the Council: \$11,000

7. Would you like to make a presentation before your proposal is reviewed?: Yes

8. What is the focus area of your project?: Other: Education – Dimensions of Political Ecology is a well-regarded conference that attracts emerging and established academics and activists from around the world. There will be paper sessions, panel presentations, and workshops that explore nearly all of the focus areas established by the SSC, including: Agriculture, Climate Change, Energy, Transportation, Water, and more.

Name	Hugh Deaner	
Title & Dept.	PhD Student, Geography	
Project Role	DOPE Conference Chair	
Email	hughdeaner@gmail.com	
Name	Lauren Moore	
Title & Dept.	PhD Student, Anthropology	

#### 9. Please name any other project leaders:

Project Role	DOPE Facilitator	
Email	laurenrmoore@uky.edu	
Name	Karen Stevens	
Title & Dept.	PhD Student, Anthropology	
	PhD Student, Anthropology UKPEWG Secretary	

10. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social).

The field of political ecology aspires to investigate how the three pillars of sustainability interact with each other, and bring to light hidden processes that contribute to the success or failure of sustainability initiatives. In asserting the interrelatedness of humans and the environments of which we are a part, political ecologists aim to denaturalize, historicize, and politicize the social processes and relations underlying the production of unequal environmental and economic conditions, which are too often treated as natural outcomes by ostensibly apolitical observers. Political ecology blurs disciplinary boundaries and complicates the relationship between scholarship and activism; indeed, it treats intellectual and political activities as inextricably connected.

For the past six years, the University of Kentucky Political Ecology Working Group (UKPEWG) has organized an annual conference called Dimensions of Political Ecology (DOPE). Now in our sixth year, this student-organized conference has grown from humble origins as a public presentation of seminar papers to a well-regarded conference that draws international participation from top scholars, while also providing important spaces for engagement by both community-based practitioners and young undergraduate scholars. The conference, which will take place from February 25-27, 2016, represents an unprecedented opportunity to connect with top scholars and fellow students from across the globe in an intimate conference setting where key long term professional relationships are forged.

We are excited to announce that we have already confirmed the participation of several prominent political ecologists at the sixth annual DOPE conference, including a plenary panel made up of three leading scholars and a moderator. Dr. Nik Heynen is a Professor in the Department of Geography at the University of Georgia and Director of UGA's Integrative Conservation (ICON) PhD Program. His research interests include urban political ecology and social movement theory with specific interests in environmental and food politics. Dr. Sapana Doshi is a Professor in the Department of Geography and Development at the University of Arizona, whose recent research in Mumbai focuses on social mobilizations around displacement and dispossession in slum redevelopment projects. Dr. Adriana Premat, a Professor of Anthropology at the University of Western Ontario, interrogates the function of urban agriculture in sustainable urban development programs, focusing on Cuba, Argentina, and Canada. Dr. Carolyn Finney will serve as moderator, she is a Professor of Geography at the University of Kentucky. Her recent book, "Black Faces, White Spaces," (2014, UNC Press), brings together the fields of environmental history, cultural studies, critical race studies, and geography to argue that historical legacies of slavery and Jim Crow have shaped and racialized understandings of the "great outdoors" in the United States. Finally, our keynote speaker will be Dr. Tracey Osborne, a Professor in the School of Geography and Development at the University of Arizona and the Director of UA's Public Policy Ecology Lab—a social science lab that uses theoretically-engaged scholarship as a vehicle for social and environmental change. Her recent research explores carbon markets, the commodification of nature, and forest governance in Southern Mexico.

Along with hosting prominent speakers, the conference is dedicated to providing an important platform for undergraduates, graduates, and faculty to share original research and to receive feedback from both peers and leaders in the field. This is achieved through the organization of dozens of paper sessions, which are typically comprised of four individual presentations followed by time for questions, comments, and discussion generated by the audience. In addition, we have a strong commitment to continue engagement beyond the academy by organizing field trips to interact with community based organizations, and the active integration of practitioners into our conference sessions and activities.

Thanks to the past support of the SSC, we have provided an innovative scholar-activist panel for the last four years that highlights the ways in which our academic institutions can become more relevant and connected to our communities. Building on the success of DOPE 2015's farmer/activist panel, "Agrarian Questions of Labor in Kentucky," we will offer a panel putting activists and scholars working on ecological issues, as they intersect with gentrification, in conversation. Pending funding, we wish to invite several social justice advocates: the Lexington Housing Justice Project, and activists Tanya and Christian Torp, and several scholars: Trushna

Parekh, a geographer at Texas Southern University who applies a political economic approach to issues of gentrification in New Orleans, and Matt Wilson, urban geography professor here at the University of Kentucky.

By bringing together top political ecologists from across numerous theoretical and practical dimensions, we expose UK (and non-UK) students to new ideas, methods, and subjects of study and action related to sustainability.

# **11.** Name any anticipated project affiliates and describe their support, including any financial, matching or in-kind support.

The Department of Geography provides in-kind support by allowing us to work with their department administrator to track and manage our funds. In addition to the SSC, we are currently seeking contributions from the following entities which have provided support in the past: the Vice President of Research; the College of Arts and Sciences; the Student Government Association; the Departments of Anthropology, Geography, Forestry, and Sociology; and the Appalachian Center.

We hope to continue those funding relationships this year, as well as establish new ones with: the Committee for Social Theory, Gender and Women's Studies, and the departments of Environmental Sciences, Philosophy, Economics, Plant and Soil Sciences, and Biology. This attempt to diversify our sources of funding reflects the impressive growth of the conference, as well as our attempt to become less reliant on one organization, such as the SSC, to fund such a large proportion of the conference. However, changes in the financial structure of the University in the past year have resulted in reductions in available funding through the College of Arts and Sciences. As such, we do continue to rely on the SSC as a key funding partner in supporting this important conference.

Nevertheless, it is a long-term goal for DOPE to become more financially self-sufficient, while still retaining our accessibility since that is a critical component of the diversity and broad-based engagement that are hallmarks of the conference. With this in mind, and thanks to advice offered by the SSC, we have raised our fees from \$20 for graduate students and \$40 for faculty to \$35 and \$70, respectively. This 75 percent increase in fees nearly doubled our revenue from registration during last year's conference. Increasing our internal revenues allows us to keep registration free for undergraduate students. Any excess revenue generated through registration fees is reinvested into campus-based UKPEWG activities during the academic year, including invited speakers and a political ecology film series.

#### 12. Who is the primary target population of your project?

Other - The DOPE 2016 conference will attract an interdisciplinary audience of scholars and

practitioners who work in the field of political ecology, meaning that the primary target population of our project is comprised of undergraduates, graduates, and faculty from UK and other universities around the world, as well as community members from Lexington and beyond. This includes a broad swath of disciplines and professions, ranging from the social to natural sciences, government agencies, and activist organizations. We make an active effort to provide a wide range of programing that draws the interest and participation of those brand new to the concept of political ecology, seasoned veterans whose innovative work pushes boundaries and advances the field, and everyone in-between who shares a passion for contributing to the construction of socio-ecological futures that are more just and sustainable.

#### In 250 words or less, please answer the following questions.

# 13. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence.

Our intended UK audiences include undergraduate, graduate, and faculty members interested in the broad field of political ecology. Most noticeably, this includes the "core" disciplines that contribute to political ecology: Anthropology; Geography; and Sociology. It also extends to programs in such diverse fields as: African American and Africana Studies; Appalachian Studies; American Studies; Ecology and Evolutionary Biology; Economics; Education; Environmental Studies; Forestry; Gender and Women's Studies; Geology; History; International Studies; Latin American, Caribbean, and Latino Studies; Philosophy; Political Science; and Sustainable Agriculture. We engage in active outreach to these groups by connecting with and presenting at their student associations, distributing conference information through campus email listservs, and actively recruiting at University events.

Last year's conference drew more than 400 scholars, environmental professionals, and activists. The 2015 DOPE conference was by all measures a great success. Our attendees enjoyed 46 paper sessions (with five to six papers each), an inspiring keynote speaker, a high caliber opening plenary panel, seven multi-disciplinary and scholar-activist panels, a graduate and undergraduate paper competition, three sold out field trips, and a full day undergraduate symposium. Our final registration counted 378 attendees, and they joined us from over 100 different universities and institutions around the world. Of those attendees, there were 13 community activists and professionals, 144 faculty (87 from UKY), and 142 graduate students (43 from UK). Additionally, with the support and encouragement of SSC, we provided free admission to 58 undergraduate students at this year's conference, with 22 of them from the University of Kentucky.

#### 14. Are there any students involved in the proposed project? If so, do they benefit from

# professional or technical skills, outputs, or experiences such as presentations, posters, or reports?

As an entirely student-run conference, a multidisciplinary group of graduate students (both masters and PhD level) are involved in and benefit from planning and participating in this project. Professional development in conference planning, grant writing, and session organizing are among the most obvious benefits to our members. Additionally the DOPE conference provides a key opportunity for UK students interested in political ecology to present and workshop their original research and engage with other new scholarship in the field.

We maintain a strong commitment to undergraduate engagement, and our Undergraduate Research Symposium has continued to grow in strength and number of participants. We encourage student participation with free conference attendance for undergraduates and reduced registration fees for graduates. We feel that this subsidized attendance structure reflects a commitment to the facilitation of student involvement in the conference.

# 15. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council.

The UK Student Sustainability Council has played a central role in the growth and success of this conference since its inception. Through the SSC's support we have been able to build a conference with a loyal and growing following, bring internationally regarded scholars to speak on our campus, and develop an innovative scholar-activist panel series that integrates the much needed perspectives of community members and non-academic practitioners into the conference. In addition, the SSC has also supported and guided us in integrating meaningful undergraduate engagement into the conference structure, a feature of the conference that we are very proud of.

# **16.** Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

Our conference organizing committee has been meeting regularly since last April, and all of the key logistics of the conference are already in place. We have secured commitments from our keynote speaker and plenary panelists, reserved spaces in The 90 and additional locations for the conference weekend, a call for papers has gone out, and registration through the HIVE opened on Thursday, October 1st.

Our next key step involves finalizing the participants in the scholar-activist panel (completed by the end of November 2015 and pending SSC funding). Other remaining tasks include finalizing travel logistics for invited speakers (completed by December 2015), securing funding from UK sources (completed by December 2015), and the routine logistics of organizing papers into sessions and running the day to day logistics of the conference (completed by February 2016).

As a result of increased institutional memory and organizational capacity, all of these tasks are familiar to us, and therefore we are confident in our ability to complete them in a timely fashion.

**17.** Does the success of your project require prior approval of other UK or non-UK entities? The success of our project does not require any prior approval from UK or non-UK entities.

#### 18. If applicable, what is the potential for long term self-sustainment or long term effects?

As previously stated in question #11, we are trying to complete the balancing act of preserving the affordability of the DOPE conference while increasing the amount of funds we raise through conference registration fees in order to help fund future conferences and carry forward a surplus that can sustain the UKPEWG. Long-term effects of the DOPE conference include raising the academic profile of the College of Arts and Sciences, building interdisciplinary connections between departments within A&S and with other universities, and cultivating positive relationships between the University and the Lexington community through field trips and the scholar-activist panel. DOPE helps mark UK as a university that is serious in its engagement with sustainability, and several prospective graduate students have highlighted their experiences at DOPE as a reason for applying to certain programs at UK.

Moving forward, the UKPEWG will work to continue infusing values of intellectual rigor, political engagement, and sustainability into the campus environment. We are committed to increasing the number of activities that we plan apart from the conference, brown bag lunches with guest speakers, and political ecology 101 courses—which we offered for the first time, with high attendance of UKY graduate and undergrad students, this past September. As we continue to build partnerships with various other political ecology organizations outside of UK, we also guarantee that our working group and the DOPE conference have multiple sources of support.

# 19. Using the following format, please provide a line item budget for the total amount request and what percent of the project is being sponsored by SSC funding. Provide information sources or reasoning for the budget estimates.

We are requesting \$11,000, which amounts to 44 percent of the DOPE 2016 Conference being sponsored by SSC funding. Please see the attached line item budget for an explanation of our estimates.

# 20. You may include additional attachments to supplement the application such as promotional material, resumes, letters of collaborative funding, etc.

Please see below for images of the UKPEWG/DOPE website (<u>www.politicalecology.org</u>) and our call for sessions.



#### Political Ecology Working Group

University of Kentucky, Lexington, KY

Home

About 2016 Conference More

000



### DOPE 2016: CALL FOR ORGANIZED SESSIONS AND CFPs

Dimensions of Political Ecology Conference February 26 – 27, 2016 University of Kentucky | Lexington, Kentucky, USA

The University of Kentucky Political Ecology Working Group cordially invites you to participate in the sixth annual Dimensions of Political Ecology Conference (DOPE 2016) February 26-27, 2016, in Lexington, Kentucky, USA. A preliminary schedule is available on our <u>website</u>. DOPE has emerged as a key international forum for graduate students and faculty in all career stages to foster interdisciplinary discussions of a wide variety of topics including rural social movements; food systems; complexity in ecological and social systems; decolonization, knowledge, and difference; neoliberal natures and climate justice; and feminist political ecologies, among many more.

A central factor in this success has been innovative participant-organized sessions that reflect the wide range of cutting-edge research currently taking place in political ecology. Thus, we encourage you to contribute by organizing a session for DOPE 2016. The conference is open to any topical, theoretical, or methodological framework that brings together scholarship on the ecological dimensions of political, social, and economic research, as well as the social aspects of natural sciences. In particular we invite participation in a special conference track. **Ecologies of Food, Agriculture & Justice** will put innovative scholarship, scholar-activist collaborators, and community outreach initiatives into dynamic conversation to approach issues in agriculture, food, nutrition, environment, energy, and community.

University			
Sources			
Student	\$11,000		Speakers:
Sustainability	<i>+</i> ,		Keynote, Scholar-
Council			Activist Panel;
			Other Expenses:
			Conference
			Activities/Rental
			Fees/Materials
VP for Research	\$4,000		Speakers: Plenary
	φ ijeee		Panel
Food	\$6,000		Other Expenses:
Connection	<i><b>Q</b>(<b>)000</b></i>		Food and
connection			Agriculture
			related
			components of
			conference, ie
			catering and
			West 6th Open
			House
Arts & Sciences	\$1,000		Other Expenses:
	+-,		Conference
			Activities/Rental
			Fees/Materials
Student	\$750		Other Expenses:
Government			Conference
Association			Activities/Rental
			Fees/Materials
Anthropology	\$250	\$400	Other Expenses:
1	•	•	Conference
			Activities/Rental
			Fees/Materials

<b>\$250</b>	\$500	Other Expenses:
		Conference
		Activities/Rental
		Fees/Materials
\$250		Other Expenses:
		Conference
		<b>Activities/Rental</b>
		Fees/Materials
\$250	\$0	Other Expenses:
		Conference
		Activities/Rental
		Fees/Materials
\$250	\$500	Other Expenses:
		Conference
		Activities/Rental
		Fees/Materials
\$250	\$0	Other Expenses:
		Conference
		<b>Activities/Rental</b>
		Fees/Materials
\$250		Other Expenses:
		Conference
		<b>Activities/Rental</b>
		Fees/Materials
\$250		Other Expenses:
		Conference
		<b>Activities/Rental</b>
		Fees/Materials
\$250		Other Expenses:
		Conference
		Activities/Rental
		Activities/ iteritar
	\$250 \$250 \$250 \$250 \$250	\$250 \$250 \$250 \$250 \$250 \$250 \$250 \$250

Philosophy	\$250		Other Expenses:
			Conference
			Activities/Rental
			Fees/Materials
Economics	\$250		Other Expenses:
			Conference
			Activities/Rental
			Fees/Materials
Plant and Soil	\$250		Other Expenses:
Sciences			Conference
			Activities/Rental
			Fees/Materials
Sub-total	\$25,750	\$1,400	
Conference			
Income			
Registration	\$6,000		Other Expenses:
			Food and any
			left-over
			expenses
TOTAL	\$31,750	\$1,400	

### University of Kentucky Student Sustainability Council 2015-2016 Grant Application

- 1. Name: Mehdi Nemati
- 2. Email: mehdi.nemati@uky.edu
- 3. UK Affiliation: PhD student- Agricultural Economics

Proposed Project Title: Understanding consumer price responses under non-uniform pricing: new evidence on the value of residential water

- 4. If applicable, please provide the sponsoring or overseeing organization. (e.g. the Office of Sustainability, Wildcat Wheels, the Dept. of Ag. Economics, etc.): Dep. Of Ag. Economics
- 5. Total Amount Requested from the Council: \$16,537
- 6. Would you like to make a presentation to the Council before your proposal is reviewed? I would like to do presentation but currently I am visiting UC-Berkeley
- 7. What is the focus area(s) of your project? Water
  - Recycling
  - o Transportation
  - Agriculture/ gardening
  - o <mark>Water</mark>
  - o Renewable Energy

- Energy Conservation
- Climate Change
- o Local Environment
- Behavioral Change
- Other (Please Describe): \_
- 8. Please name any other project leaders:

Name Steven Buck	
Title & department	Assistant professor, Dep of Ag. Economics
Project Role	Advisor
Email	Steven.buck@uky.edu
Name	
Title & department	
Project Role	
Email	

9. Please describe the project, its goals, and how it contributes to UK student knowledge, attitudes & culture, or practices of the 3 pillars of sustainability (i.e. economic, environmental and social).

**Research question:** there are several research questions which will be addressed in this project: (1) how to value natural resources, (2) assert trade-off between urban uses and environmental uses, and (3) non-uniform pricing and consumption relationship. Last question that we are trying to address is not happening only in water sector and result can be useful and repeatable for electrical and gas block pricing in most of the states such as electricity block pricing in Kentucky.

**Motivation:** The price elasticity of water demand is a useful parameter for city planners and state decision-makers to (i) consider the effects of large projected rate increases on residential water consumption, (ii) value investments in reliable alternative water supplies and (iii) estimate the welfare costs associated with mandated cut-backs on water consumption (e.g. the year 2015 mandated cut-back in California) to preserve environmental flows for the future.

**Objective:** The objective of this paper is to evaluate the credibility and sensitivity for estimates of the price elasticity of water demand in the single family residential sector under different sets of demand assumptions. To do so, we collect and employ the most up-to-date and comprehensive data set available on consumption and prices in the

single family residential sector using monthly data from 1994-2014 for approximately 250 water retailers in California. This utilities aggregately supply more than 90 percent of water that is needed for SFRs sector in California. First, we will compare price elasticities obtained from estimating monthly, seasonal and annual demand. Second, we will examine whether estimated price elasticities vary by the type of rate schedule (uniform vs. non-uniform) faced by consumers as well as other factors such as income and lot size. Third, we will test for dynamic price elasticities to examine whether demand is more elastic during drought periods and in more recent years. The results of these analyses will be compared with existing estimates of price elasticities in the literature and then used to conduct analyses on the effects of projected rates increases on consumption forecasts, the welfare consequences of water shortages and the corresponding benefits of investments in reliable alternative water supplies, and finally the welfare costs associated with mandated cut-backs of water consumption to maintain environmental flows. Supply distributions is relevant to many parts of the U.S. including: Texas (Combs, 2012), New Mexico (Martinez et al. 2013), and Georgia (Missimer et al., 2014), Nevada (Barnett and Pierce, 2009), Arizona (Marshall et al., 2010), and Colorado (Rajagopalan et al. 2009).

**Data:** Several factors such as weather, water pricing, and household demographics and characteristics influence residential water demand. Moreover, water demand also shows seasonality (demand varies with the seasons of the year, day of the week, or hour of the day) due to changes in weather conditions (Arbués et al. 2003). For this aim in this paper, we will use unbalanced panel data tracking retailer-level on water consumption between January 1994 and December 2014, for the single family residential (SFR) consumers in California. In particular, considering consumption aggregated to the annual level, the panel has 8,799 observations; with consideration of monthly level panel we have 22,183,348 observations. Consumption data still needs price and administrative data which will be collected through surveys from the target utilities. Data on household characteristics will obtain from the U.S. Census and DataQuick and averaged to the retailer-level. These household attributes are average lot size, average household size, and average income. We also include the following environmental drivers of residential demand: average temperature maximum, average summertime temperature maximum, and precipitation. We need funding for administrative and price survey from the above mentioned utilities.

**Research Design:** To estimate demand curve we will use a fixed effects estimator. The base equation that we intend to estimate is reported in eq. (1):

$$\ln(Q_{it}) = \beta_1 \ln(P_{it}) + \beta_2 \ln(W_{it}) + \beta_3 \ln(hh_{it}) + \mu_i + \tau_t + u_{it}$$
(1)

where  $Q_{it}$  is the average household water consumption for utility service area i and year (month or season) t;  $P_{it}$  is the price per hundred cubic feet (ccf);  $W_{it}$  is a vector of precipitation and temperature measures;  $hh_{it}$  is a vector of household characteristics: average lot size, average household size, and average income.  $\mu_i$  is a utility fixed effect;  $\tau_t$  is a year (month or season) fixed effect, and  $u_{it}$  captures all unobserved factors affecting the dependent variable.

10. Name any anticipated project affiliates and describe their support, including any financial, matching or in-kind support.

Dr.Steve Buck, Assistant professor, Dep. Of Ag. Economics, Research Design, 25 percent of research expenses funding support.

Dr.Dave Sunding, Professor, UC-Berkeley, Research Design.

11. Who is the primary target population of your project? Undergraduates and graduate students , California residents in specific and the whole world generally

- UK (general)
- Undergraduates
- Graduates
- o Community
- o Faculty
- Other (Please Describe):

#### In 250 words or less, please answer the following questions.

12. Describe the intended University of Kentucky audiences and potential number of people impacted including any potential diverse segments such as student or community organizations and supporting evidence (e.g. expected or historical event/speaker attendance).

This project will be impact undergraduate students that will be collaborating with us to do the surveys in different ways: they will learn statistical software such as R that will be beneficial for their future job and also data collection and management process. Also, they can find networks in the California utilities in data collection process which help them to find job in the future. Data that we collect for this project could be used in many other projects in water area. This part will affect faculties and graduate students in the Dep. Of Ag. Economics and economics Dep. at U.K. Finally, this project will be helpful for the U.S. residents and policy makers in several states (California, Texas, New Mexico, Nevada, Arizona, Georgia, and etc.) Which are facing continuous drought. Also, undersetting block pricing can be helpful in other sectors such as electricity and gas sector and which makes this project as a bassline for other projects in this sectors and makes the effect of this project even wider.

13. Are there any students involved in the proposed project? If so, do they benefit from professional or technical skills, outputs, or experiences such as presentations, posters, or reports?Yes, we will involve 10 undergraduate students and 1 master student in this project. They will learn more

Yes, we will involve 10 undergraduate students and 1 master student in this project. They will learn more about survey design and working with R statistical software.

- 14. Please describe any previous history and to what extent you, other project leaders, or the sponsoring organization may have with the UK Student Sustainability Council. There is lots of collaboration between Dep. of Ag. Economics and SSC. Many of my peers got funding from SSC and they are successfully finished their projects or they are still working on the projects.
- 15. Please outline a timeline and milestones to ensure project efficacy prior to and after project implementation.

Time	Work
Nov 2 <sup>nd</sup> 2015	Proposal submitted
3st Week of Nov 2015	Receive funds
4st Week of Nov 2015	contact undergraduate students and hire motivated undergraduates and one master student
1nd Week of Dec 2015	students training
2rd and 3rd and 4rd Week of De 2015 & Jan 2016	students start contact utilities and collect data
Feb 2016	Data entry
Mar 2016	Data management, cleaning, and quality control
Apr 2016	Data merging and quality control
May- end of Jul 2016	Demand estimation
Aug- Oct 2016	Writing report and presentation in 2017
	Environmental Economics conference

#### Timeline

16. Does the success of your project require prior approval of other UK or non-UK entities (e.g. IRB or venue approval, etc.)? no

17. If applicable, what is the potential for long term self-sustainment or long term effects?

Findings of this project helps to (i) consider the effects of large projected rate increases on residential water consumption, (ii) value investments in reliable alternative water supplies and (iii) estimate the welfare costs associated with mandated cut-backs in water consumption to maintain environmental flows which is relevant to many states in the U.S. including: Texas (Combs, 2012), New Mexico (Martinez et al. 2013), and Georgia (Missimer et al., 2014), Nevada (Barnett and Pierce, 2009), Arizona (Marshall et al., 2010), and Colorado (Rajagopalan et al. 2009).