



2021 ESCOP Executive Committee Meeting Agenda
November 12, 2021 (1:00 - 3:30 p.m. ET)

Time	Agenda Item	Topic and Presenter(s)
1:00 p.m.	1.0	Call to Order – Chris Pritsos, ESCOP Chair <ul style="list-style-type: none"> • Approval of Agenda • Approval of Minutes (October 27, 2020) • Interim Actions • ESCOP Priorities and Chair Initiatives
1:15 p.m.	2.0	Cornerstone Advocacy Update and Path Forward– Vernie Hubert
1:25 p.m.	3.0	BLC 2022 Plan – Glenda Humiston and Jeff Jacobsen
1:45 p.m.	4.0	ESS Finance Committee 2022 Plan – Moses Kairo and Jeff Jacobsen
1:50 p.m.	5.0	CMC 2022 Plan – JF Meullenet and Rick Rhodes
1:55 p.m.	6.0	NIDB 2022 Plan – Steve Loring and Rick Rhodes
2:00 p.m.	7.0	BAA Policy Board of Directors 2022 Plan – Mark McGuire and Gary Thompson
2:10 p.m.	8.0	APLU Update – Doug Steele
2:20 p.m.	9.0	DCC 2022 Plan – Henry Fadamiro and Rick Rhodes
2:30 p.m.	10.0	STC 2022 Plan – Bernie Engel and Bret Hess
2:55 p.m.	11.0	CARET 2022 Plan – Katie Frazier
3:00 p.m.	12.0	ECOP 2022 Action Plan– Bev Durgan and Caroline Henney
3:15 p.m.	13.0	NIFA Reporting System 2022 Plan – Bret Hess
3:20 p.m.	14.0	LEAD21 2022 Plan – Alton Thompson
3:25 p.m.	15.0	Other Business- ESS Climate Change Leadership Strategies (Gary Thompson)
3:30 p.m.	16.0	Final Remarks and Adjourn – Chris Pritsos



2020 ESCOP Executive Committee Meeting Agenda
October 27, 2020 (1:00 - 3:30 p.m. EDT)

Time	Agenda Item	Topic and Presenter(s)
1:00 p.m.	1.0	Call to Order – Moses T. Kairo, ESCOP Chair <ul style="list-style-type: none"> • Approval of Agenda • Approval of Minutes (November 11, 2019) • Interim Actions • ESCOP Priorities and Chair Initiatives
1:15 p.m.	2.0	ESS Assessment Discussion – Moses Kairo and Alton Thompson
1:30 p.m.	3.0	CMC – Steve Loring, Ryan McConaghy, Forbes Tate Partners and Rick Rhodes
1:45 p.m.	4.0	BLC Report – Glenda Humiston and Jeff Jacobsen
2:05 p.m.	5.0	Cornerstone Advocacy Update – Hunt Shipman, Jim Richards and Maggie Earle
2:15 p.m.	6.0	APLU Update - Doug Steele
2:30	7.0	Ag Research Infrastructure – Caron Gala, Jeff Jacobsen, and Alton Thompson
2:45	8.0	REEport Research Working Group – Bret Hess
3:15 p.m.	9.0	Other Committee Reports (new information only) <ul style="list-style-type: none"> • NIDB – Steve Loring, Karla Trautman and Rick Rhodes • ECOP Liaison Report to ESCOP – Chris Watkins and Caroline Crocoll • LEAD21 – Alton Thompson • DCC – Henry Fadamiro and Rick Rhodes • STC – Jody Jellison and Bret Hess
2:45 p.m.	10.0	Other Business, as needed
3:30 p.m.	11.0	Final Remarks and Adjourn – Moses T. Kairo

- **1.1 Approval of Agenda:** Upon a motion properly made, seconded and carried, the agenda was approved as presented.
- **1.2 Approval of Minutes:** Upon a motion properly made, seconded and carried, the minutes were approved as presented.
- **1.3 Approval of Interim Actions:** (1) Marty Draper, Kansas State University, was appointed to represent ESS on Strategic Realignment Implementation Committee and on the National IPM Coordinating Committee; (2) Bret Hess, WAAESD, was appointed as the ESCOP Liaison to ACOP; (3) Ulises Toledo, West Virginia State University, was appointed to represent ARD on the Strategic Realignment Implementation Committee; and (4) with the help of the EDs, Moses completed a NCFAR survey on how its stakeholders value USDA programs in the REE mission area and on NCFAR's overall value and effectiveness. Upon a motion properly made, seconded and carried, the interim actions were approved.
- **1.4 ESCOP Priorities and Chair Initiatives (page 2):** [Click here.](#)
- Moses will work with the EDs and the various ESS committees to develop metrics to operationalize these priorities and initiatives.

- **2.0 ESS Assessment Discussion** – Moses discussed the ballot in detail. *(The ballot is appended to the end of the minutes)*
- The ballots have been mailed out. Moses encouraged the directors, who had not returned their ballots, to do so by October 30, 2020.
- Moses noted that progress has been made on the unpaid accounts. Only eight universities had not paid their assessment totally \$11,481.00. Moses encouraged these directors to pay their assessments as soon as possible.

- **3.0 CMC**
- The CMC Agenda Brief begins on page 4 and the Forbes|Tate Strategic Communications Roadmap Plan Outline begins on page 6. *(refer to the above hyperlink).*
- In addition, Steve Loring encouraged the directors who have not voted to support the CMC request on the ballot, a very high priority for the CMC.

- **4.0 BLC (page 21 in the hyperlink).**
- In addition, Jeff Jacobsen characterized the first meeting as an orientation-type and reset meeting in that the BLC chairperson was new, and 5 of the 12 directors were new to the committee. In this meeting, they examined the BLC charge, the expanding and important role of the BLC chairperson, along with linkages to other ESS and BAA committees, the professional societies, the EDs, and other USDA agencies. The BLC membership was encouraged to look at the resources, ESCOP website and land-grant.org, and consider thinking of a few moonshot ideas that ESS should be focusing on.
- Finally, Jeff reported that, with the help of Doug Steele, \$600,000 of ESS funds has been transferred to TD Wealth, our management advisor, to be invested.

- **5.0 Cornerstone Advocacy Update:** Jim Richards reported that once the election is over next week, we will know what our current status is with respect to the House and Senate bills. We expect the Senate Appropriations Committee to release the Chairman's Markup that will be released in a report. Then, we'll be able to see what our numbers will be in their product.
- Once that's done, and we'll have to figure out who the winners and the losers are in the House and Senate, then the goal is to reconcile both the House and Senate bills and do an omnibus appropriations bill before this current continuing resolution expires in the middle of December.
- This is the goal from bi-partisan and bi-camera leadership in the House and Senate, but depending on what happens on Tuesday, you may see a scenario where this goal may change.
- So we won't really know the answer to that until such time as we see what happens in the election and see if people have a change of heart on how they want to finish up the year. Right now, there are lots of unknowns and lots of questions.
- **6.0 APLU Update:** Doug reported that the Strategic Realignment Implementation Committee (SRIC) held its first meeting, with Ernie Minton as the Chair. The SRIC plans to meet once a month for the next three or four months, with the intention to have a final recommendation on strategic realignment for the NIFA budget by March. The SRIC starting point will be the final recommendations from the last committee. One is the six lines which now include the 1994s; which will be about nine lines around capacity, plus competitive through NIFA; another one is about 15 lines that came out of major consolidation of all the accounts less than \$10 million under a unified theme.
- The SRIC is considering a third option with the help of Cornerstone. If you look at the NIFA budget and a lot of the report language, the language always talks about research, extension and teaching, which is what this language is known for.
- We are considering if there may be a way to organize around research, teaching and extension and then maybe a fourth category such as deferred maintenance or infrastructure.
- With respect to the capacity funding working group, the FANR has put this work on hold. The infrastructure initiative based on the Sightlines Study, the \$380 million COVID stimulus response and strategic realignment is about all the capacity FANR can handle.
- With respect to Communications and Marketing, FANR does not have a Plan B. We are all-in with this one approach based on the work that FANR has done for the past eight months. The Administrative Heads Section has already approved this assessment, which will help us move forward for two years. Once we get the results from ESS and CES, we'll make a final decision.
- One of the weaknesses that Forbes-Tate has identified is that our system is not prepared to make a quick, nimble move on any one topic because we don't have enough documentation in place to make this happen. Doug and his team are committing some time thinking about . . . For example, what do we need to do to show that we need more capacity money; what do we need to do to show that COVID has had a huge financial impact on our research and Extension capacity budgets; and what do we need to do to show that there's a huge broadband issue across rural America that needs addressing. Doug and his staff are trying to get this information together.
- No matter what happens, after November 4, we'll re engage the old team/leadership or engage the new team/leadership in reference to new committee assignments. Doug's staff is working very closely with the CGA and Cornerstone to identify what those transition teams would look like and to identify their lead people for agriculture and rural policies.
- Our engagement briefings will be some kind of a virtual of format. Doug's staff is working with the CGA members to identify the best practices for having a virtual meeting with congressional staff.
- APLU is working with the CGA on the AHS/CARET virtual meeting. They are looking at best practices for virtual visits.

- Prior to July 1, APLU will not host any face-to-face meetings. Soon after July 1, APLU will make a decision about the summer Joint COPS meeting.
- As part of AHS/CARET meeting, the incoming BAC Chair, Paul Patterson-Auburn University, is working with Cornerstone, and the CARET delegates to put together two workshops: (1) specifically for the administrative heads on how current delegates are selected and how do they get alerts. In addition, the expectations of CARET delegates will be discussed, including “what does a successful career delegate look like” and “how can you strengthen that relationship;” and (2) how does the CARET delegates work with the advocacy folks from their universities and the university leadership on sending forth the correct messages.
- Perhaps, in February, depending on what's taking place in the world, we will push strongly for our Infrastructure Initiative because it doesn't look like a stimulus package is going to have a targeted funding for infrastructure.
- The APLU annual meeting is November 9-11. There are separate registrations for the APLU meetings (\$35 registration fee) and the FANR meetings. 1001 persons have registered for the APLU meeting.
- **7.0 Ag Research Infrastructure:** Caron reported that our ag research infrastructure initiative is the biggest and most notable opportunity that the LGU system has had to really make a difference in the future of food and agricultural science Infrastructure. The FANR office is coordinating with the CMC because the communication effort is so important to highlight the needs and do it in such a way that doesn't shed light on vulnerabilities, but focus more on opportunities moving forward and how we can solve a lot of the pressing issues based on science and innovation.
- We're going to also be working with the CGA. We have a group of 30 to 40 really engaged folks who are so interested in this specific task and who want to work with you at your member institution to launch a campaign to support this request.
- In the next coming months, although a public rollout would happen until February, we want to reassure you that we will be working behind the scenes to prepare for that rollout in every month leading up to that point. The FANR office and the CGA will be working in coordination with Cornerstone, ESCOP and the BAA to put together tactical strategies to move forward the request in a stimulus or whatever vehicle that is moving and appropriate for this request. While the public rollout will not necessarily happen until February, there are going to be several touch points before then. Part of that includes getting key stakeholder advocates to socialize the request. We will be working with the CMC to develop a slide deck to give our large number of supporters in the community to help us advocate for this infrastructure proposal. We will be able to use this slide deck and other materials at the national, regional and local levels, and of course, at the member institutions. To make sure that our key stakeholder advocates understand our message and are ready to be activated at an appropriate time, we have outlined a series of phases. The draft plan is in Agenda Brief #7 (*page 23 in the hyperlink*) which outlines the seven phases.
- The Ag Research Initiative Advocacy (ARIA) Committee (i.e., Moses, Tom Coon, Glenda, Jeff, Alton, the Cornerstone team and a few others) will begin meeting in November, and on a regular basis to talk more about these phases and really develop a set of substantive and impactful materials to move this plan forward to effectively communicate this request..

- **8.0 REEport Working Group** (*Agenda Brief #8, page 24 in the hyperlink*).

- In addition, Bret reported that the NIFA leadership asked ESCOP for assistance in identifying and appointing members from each region to work on this working group. The purpose of this working group is to assist NIFA with developing a new reporting module for capacity research programs identified in the AREE Act of 1998.
- The request was for each region to appoint one director and one staff member with experience on the reporting requirements. The members of this work group are listed on page 24 of the agenda brief.
- In the initial meeting of this group, August 4, the working group was introduced to each other, to the NIFA team and to the team that NIFA hired from Booz Allen. In addition, Acting Director Parag Chitnis gave the committee its charge.
- One major point to note is that this work group will focus initially on capacity research programs specifically referred to in the AREE Act of 1998, that is, Evans- Allen, Hatch and Hatch Multi-state.
- This working group will meet every other week; the second meeting was held on September 15; the series of notes from the first three meetings are in the agenda brief.
- NIFA is starting to develop a new reporting module for research, similar to the efforts of the Extension working group. The new Extension module was officially released at the end of September. The current information in the project initiation REEport will serve as a foundation for discussions for the research working group, at least so far.
- NIFA's approach has been to work through the module and asked whether something that is currently being captured during the project initiation is required by law or policy and, if not, is there a reason to retain the field in the new project initiation module for the capacity research programs?
- NIFA reiterated the need to identify inefficiency and duplicative information requests.
- Critical issues will serve as the anchor across the different modules in the NIFA reporting system.
- NIFA is focusing on what is currently working for Hatch projects and asked the question, "what do you have in place in terms of internal processes for initially initiating a project?"
- The first action item for NIFA is to identify what is required by NIFA in proposals as the lack of standardization in proposal template is an inefficiency that needs to be addressed.
- NIFA is also exploring the possibility of integrating a data mining tool that will eliminate the need for supplying classification information. The work group believes the LGOs should be conducting the science reviews and that NIFA should be limiting their review to administrative reviews.
- The question came up whether or not NIFA needs FTE estimate information.
- A big challenge occurs when the PI enters their project during project initiation, the PI often has a difficult time translating their basic research into true outcomes or the benefits to public.
- There has been a couple of conversations about the methods Information section. It was noted that this field could be removed as methodology information is pasted directly from proposals; however, NIFA is checking into this section because it may be required for internal purposes.
- There is a tool that is likely going to be utilized for keywords. This information can be pulled directly through the new platform and those entering the project initiation would not need to input that information.
- There has been quite a few discussions about forecasting forestry and animal health component percentages. Many of the representatives mentioned that this information is essential to them because this might be the only place where this information is collected. As NIFA explores solutions, they are going to focus on three areas (1) improving the way forestry and animal health projects are identified and then efficiently handled so they're exploring how they can use yes/no checkboxes to streamline the spreadsheet; (2) focus on the tactical needs for every institution to have a list that touches everything that's related to animal health and then differentiate projects and percentage levels, and (3) continue leveraging the data gateway at the macro level to view total percentages of forestry and animal health.

- The integrated activity section that was developed for the Extension module will likely remain because one of the things that was discussed was there is sometimes a need to enter projects from both research and Extension to satisfy the integrated activities requirement by the AREE Act.
- Multi state activities are also part of the reporting or, project initiations, that have been discussed, but not in a lot of detail.
- Currently in REEport, the only thing that is pre-populated are the goals because the projects have already been approved by the region.
- NIFA will work with and has already begun to have conversations with the regional association representatives and the Clemson's programming team to work out best solutions for integration with the new reporting module.
- There was additional follow up discussions about the knowledge areas, subjects of investigation, and fields of science that are currently part of the REEport system. Again, NIFA believes that there is a way to streamline this process and collect this information through the platform they will be using.
- The questions about human subjects and vertebrate animal will remain in the assurance section in the new module.
- Finally, the new system will have an area where you can upload the full proposal.

• **9a. NIDB:** Steve Loring referred to Agenda Brief #9a, and stated that there was not any new information since his report on October 1st at the ESS business meeting. The next meeting of the NIDB will be on December 15th.

• **9b. ECOP Liaison Report to ESCOP:**

- Caroline noted that the Agenda Brief #9.2 (*page 31 in the hyperlink*) basically provided an overview of leadership changes. Caroline is now the Executive Director of CES and ECOP; Mark Latimore finished his chair opportunity at the NEDA meeting on September 24.
- Chris Watkins, Cornell University, is now the ECOP Chair, and Wendy Powers is the incoming chair for 2021- 2022 and will serve as the ECOP representative to ESCOP. CES has also provided information about the ECOP'S 2022- 2023 strategic directions. The links are available in the agenda brief.
- Programmatically, we focused a great deal through Extension on the COVID-19 resources available on health related issues on the Land O' Lakes American Connection Project where CES has worked closely with Land O Lakes and Microsoft, and others, as a part of the American Connection Project. The purpose of this project was to look at where hotspots are available across the United States, and mapping those, so that we can provide a map of access to broadband across the United States. 2300 Hotspot were identified, and half of those coming from Extension sources.
- CES has also focused on coming together for racial understanding and on racial equity issues over the past several months. CES provided ECOP'S strategic directions as well as the priorities and action plan for Chris Watkins for the coming year, with many parallels to what we're seeing with ESCOP'S strategic planning.
- Caroline expressed her appreciation to Moses and Alton for their collaboration in pulling together the information regarding the CMC request. CES and ESS had parallel opportunities to put that information out for a vote to both sections at the same time.

- **9c. Lead 21:** In referring to Agenda Brief #9.3, Alton noted seven highlights of highlights of this excellent leadership program. (*page 37 in the hyperlink*)
- (1) Rachel Sapp is the LEAD21 Program Director; she is doing an outstanding job.

- (2) Because of the COVID-19 pandemic, LEAD21 quickly adapted the curriculum to a virtual curriculum, using various innovative technologies.
- (3) The participants evaluated the virtual programming very positively as manifested most succinctly by the large number of rave reviews
- (4) The current class, Class 16 had 76 participants; the land grant system was well represented.
- (5) To date, LEAD21 has graduated over 1200 future leaders.
- (6) Applications are now open for Class 17; the deadline is November 30th.
- (7) The registration fee has not increased, \$9,750.00. Because of the virtual nature of the sessions, the tuition may be reduced for Class 17.

- **9d. DCC:** Because of a meeting conflict, Henry could only participate during the first hour of this meeting. Rick gave the report and noted that the Agenda Brief was in the packet of meeting materials (*page 43 in the hyperlink*). Rick, however, wanted to bring one item in the agenda brief to the attention of the Executive Committee that revolved around one of DCC's newest members, Drenda Williams. Drenda is the Director for Equal Opportunity and Civil Rights at NIFA. Drenda, during the most recent DCC meeting on October 13th, shared that NIFA would be showcasing exemplary diversity and inclusion programs. The DCC decided to submit a showcasing nomination, on behalf of this year's National Experiment Station Diversity and Inclusion Award winner --- the Department of Family, Youth and Community Sciences at the University of Florida. Thus, the DCC is pleased that its award winner will be the first showcase program, a fact goes right to the heart of the partnership that we have with NIFA.
- **9e.STC:** Jody noted that the STC Report is in the agenda briefs. (*page 44 in the hyperlink*) The agenda brief is a document that provides a review and discussion of some of the inputs that part of our network have submitted to the Federal Register in response to listening sessions on agricultural innovation.
- The STC has also specifically highlighted, not just our essentially summary of some of this input, but also some areas where we felt that additional input might be useful. Some of the salient points that have been highlighted by the group include the need for respecting the regional nature of many of our initiatives and the need to have regional representation in the RFP process, a consistent focus on resilience and reduction of environmental costs, and the importance of agricultural scale. Agricultural enterprises operate at numerous scales and if this can be reflected in the RFP, this would be advantageous to the entire enterprise technologies. Other salient points included the importance of social science, and the importance of integrating our efforts with both the Extension outreach component and with the private sector.
- A few of the gaps that are highlighted for additional consideration are the importance of biodiversity and ecological services habitat, and the possibility of looking more at the urban, rural interface. There is one edit that didn't make it into this document; Rick suggested under the urban, rural interface, we should also highlight the need for agricultural and food policies that promote local economic development at that particular interface and the funding of farm businesses and local food systems.
- Additional areas that the STC thought should be highlighted included the importance of food security beyond just the urban areas; rural areas also can experience significant food insecurity.
- The request of the STC is that the Executive Committee approve submitting this document, through Moses in his role as chair, to USDA for consideration as the agency moves into the next phase of their planning process.
- Upon a motion properly made, seconded and carried, the STC document was approved and will be submitted to USDA.

- **Moses introduced a special guest and requested that she give some remarks on behalf of NIFA.**
- **Deb Hamernik** joined NIFA at the end of July as Director of the Division of Animal Systems.
- About a year ago, NIFA was relocated to Kansas City, and at that time, of the 300 staff persons, less than 50 people actually made the move to Kansas City. Thus, there is a big gap in expertise that actually moved to Kansas City. NIFA has done a lot of hiring in the last year. NIFA now has slightly more than 200 employees in Kansas City, and that would include an additional 20 people in Washington, DC.
- NIFA is starting its last round of hiring NPLs, a few gaps remain. NIFA has hired a number of NPLs across the agency, and quite a few programs specialists are now in the queue to come on board. NIFA is trying to get everybody on board because there's almost always a hiring freeze right after a national election.
- Many of the new NPLs are actually faculty that came from land grant universities. They've had some experience managing AFRI grants at the research, teaching or integrated levels. What they probably lack is managing programs and large amounts of money at a higher, bigger picture level.
- NIFA's Policy Office and Communications Office are still very much understaffed; i.e., Faith Peppers has a staff of one person.
- NIFA's Awards Management Office is very well staff and very competent. Last fiscal year, they actually got more awards out of the door than they did the year before, which is really remarkable giving the transition in people and expertise.
- Since April, NIFA has invested a little over \$14 million in COVID-19 funding. The AFRI Applied Foundational and Applied Sciences RFA had a call for integrated research, teaching and extension projects. The AFRI Workforce and Development RFA also had a call for developing online program materials for the 4H clubs that couldn't meet, for the after school programs that couldn't meet and for remote learning. Those awards probably haven't been announced yet, but the panel has met and that funding will go out of the door soon.
- The small business innovative research program also has made a few investments for work in the private sector.
- Many of the review panels are ongoing. NIFA is still wrapping up a few panels from 2020 funding and the 2021-2022 RFA for AFRI has been released
- NIFA is almost finished with the Sustainable Agricultural Systems RFA, the \$10 million grants, large integrated research, teaching and extension grants in the Sustainable Development systems area. This RFA should be out soon.
- As a member of the REEport working group, Deb was really pleased to hear Bret's detailed report. She mentioned the great job that Lynn Khadiagala is doing in managing this process, building it around what the LGUs really need to administer this funding.
- NIFA is trying to streamline the information in the collection process, reduce administrative burden, and harmonize, when possible, all of the forms between research and Extension and the competitive process as well, more standardization of forms.
- Deb informed the ESCOP Executive Committee that NIFA is thinking about bringing back the state liaison process-- the process where state liaisons would review your plan of work and annual report of accomplishments, which was discontinued with the move to Kansas City because NIFA was so understaffed. Deb asked for our comments in that there has not been a lot of movement of bringing the liaisons back.
- NIFA is having regular quarterly meetings with the APLU leadership and the Research and Extension EDs which is an excellent way to communicate with NIFA, to share information, and to get feedback. Deb encouraged the directors to work with their EDs and bring their issues to NIFA's attention.

- Rick Rhodes asked Deb a question about the state liaisons and ask her to comment on regional liaisons.
- Deb responded that last month, NIFA made new assignments to ESCOP, ECOP, ACOP, ICOP as well as the regional associations. These assignments will be published in a future NIFA Update. These are Deputy Directors or Acting Deputy Directors or Division Directors, or other NIFA leaders who will be interacting with the regions.
- **With no ‘Other Business,’** before Moses adjourned the meeting, he encouraged the membership to celebrate the many accomplishments of our colleagues during the awards program tomorrow (Oct. 28). Moses recognized **Dr. Robert Godfrey**, Associate Director of the Agricultural Experiment Station and Professor of Animal Science, University of the Virgin Islands; **Dr. Marc Linit**, *retired* Senior Associate Dean for Research & Extension and Director of the Missouri Agricultural Experiment Station; **Dr. Steven J. Loring**, Associate Director, New Mexico Agricultural Experiment Station; **Dr. Alfred L. Parks**, Interim Executive Associate Director of the Cooperative Agricultural Research Center and Professor of Agricultural Economics and Agribusiness, College of Agriculture and Human Sciences, Prairie View A&M University; and **Dr. Adel Shirmohammadi**, *former* Associate Dean for Research and Associate Director of Maryland Agricultural Experiment Station and Professor, Department of Environmental Science and Technology.
- These individuals have led their institutions and provide the leadership personifying the highest level of excellence and enhancing the regional associations or experiment station in achieving the land grant mission.
- Upon a motion properly made, seconded and carried, the meeting of the ESCOP Executive Committee was adjourned at 2:26 p.m. Eastern Time.

Communications and Marketing Committee (CMC) Budget Request

Background:

- ✓ The Communications and Marketing Committee (CMC) engaged Forbes Tate Partners (FTP) to develop a process for future communications strategies, resulting in the Strategic Communications Roadmap. This document includes an overview of the plan objective, strategy, tactics, and best practices for the CMC to fully realize and execute the final plan to build a communications process. It was not intended to be the plan itself, but rather a guide to build a comprehensive, effective messaging effort that will support the Board on Agriculture Assembly (BAA) advocacy goals. **The report is available [here](#).**
- ✓ The CMC is currently an ad hoc committee of the BAA. The BAA Policy Board of Directors is currently developing a plan to designate the CMC as a standing committee of the BAA.
- ✓ At the 2020 ESS Business Meeting, Steve Loring, past CMC Chair, and Ryan McConaghy of Forbes Tate presented the highlights of this plan and answered questions.

Request:

- ✓ The CMC is requesting \$100,000 per section (AHS, CES, ESS) per year for a period of two years. The \$300,000 per year will support personnel (1.5 FTE salary and fringe) plus operating costs. The personnel, to be located at the APLU headquarters, will be responsible for implementing the Strategic Communications Roadmap over a two-year period. Each of the three sections had previously supported the CMC and its consultant (kglobal) annually at \$133,333.
- ✓ Per the ESS Rules of Operation, the expenditure of funds greater than \$5,000 requires approval of ESS by a direct vote during the year or a vote during the ESS budget approval process. The ESS budget would be reviewed and voted on annually at the ESS meeting.
- ✓ **Please indicate your vote below and return to your regional Executive Director, no later than **October 30, 2020**.**

BALLOT

Station or Institution (one vote): _____

Use ESS funds to support the Communication and Marketing Committee (CMC), a commitment of \$100,000 per year for a period of two years (CY 2021, 2022)

Approve _____ Reject _____ Abstain _____

(A simple majority of those voting is required for approval)

CMC Assessment – Reduction of Assessment

Background:

- ✓ The CMC Assessment is currently an on-going assessment of \$200,000. Over time, legacy actions created and additional partners (AHS, CES) increased ESS cash reserves as the CMC Assessment continued. The CMC Assessment contributed to the ESS share of the previous CMC project annually at \$133,333. ESS cash reserves created the nationally approved investment opportunity with TD Wealth Management starting with \$600,000. The \$600,000 is in a separate account and would incur a 1.03% fee and any market downturn losses (or gains) if it were needed for cash at any time.
- ✓ After contributing \$27,000 to Gordian for the Sightlines study refresh, the carry-forward at the end of CY2019 was \$92,277. An additional >\$120,000 carry-forward is projected at the end of CY2020, which is largely due to cancelation of the kglobal contract and reduced ESS operational expenditures throughout the COVID-19 pandemic.
- ✓ The CY21 ESS operational budget was nationally approved at \$70,000. Approval of CMC expenses aside, the balance of carry-forward is projected to total >\$142,227 (\$22,227 after CY21 budgeted expenses plus in CY21 carry-forward >\$120,000). The ESS operational budget for everything except CMC is anticipated to be \$70,000 for CY22.
- ✓ The COVID-19 pandemic impacts on state budgets are severe and on-going. Regardless of whether the CMC request of \$100,000 per year for a period of two years is approved, the current CMC assessment of \$200,000 annually is greater than annual operating expenses. Members of ESS have expressed the desire to reduce the annual assessment.

Request:

- ✓ Reduce the CMC assessment for two years. This 2-year assessment reduction reflects current pandemic impacts on our institutions. Support for the 2-year CMC effort would come from the reduced assessment of \$100,000 or from existing cash reserves or the invested funds. This 2-year change in assessment would be revisited during the fall ESS 2022 business meeting. **If one of the following actions is not supported by a 2/3 majority, the current annual assessment of \$200,000 will remain in force.**
- ✓ Per the ESS Rules of Operation, a two-thirds (2/3) majority of those voting is required for adoption of an assessment referendum.
- ✓ **Please indicate your vote below and return to your regional Executive Director, no later than **October 30, 2020**.**

BALLOT	
Station or Institution (one vote): _____	
Reduce the ESS assessment from \$200,000 to:	
_____	\$100,000 for CY21 and CY22
_____	\$0 for CY21 and CY22
(A two-thirds majority of those voting is required for approval)	

CMC Assessment – Name Change

Background:

- ✓ The assessment and reserves have been used for more than CMC efforts, i.e., the ESS annual budget for operations. Changing the name would more accurately reflect current and future ESS practices.

Request:

- ✓ Change the name of the annual assessment.
- ✓ Please indicate your vote below and return to your regional Executive Director, no later than **October 30, 2020**.

BALLOT

Station or Institution (one vote): _____

Change the name of the CMC Assessment to Annual Assessment

Approve _____

Reject _____

Abstain _____

(A simple majority of those voting is required for approval)

Agenda Item 1.3: Interim Actions
Presenter: Chris Pritsos, ESCOP Chair
Action Requested: Vote for Approval

1. Added the Experiment Station Committee on Organization and Policy on the stakeholder support letter to Majority Leader Schumer and Speaker Pelosi supporting \$7.75 billion in Research, Innovation, and Facilities Funding in the Build Back Better Package.
2. Recent ESCOP Appointments:
 - Marty Draper, Kansas State University, Budget and Legislative Committee
 - Shawn Donkin, Oregon State University, Budget and Legislative Committee
 - Sreekala Bajwa, Montana State University, Budget and Legislative Committee

Agenda Item 1.4: ESCOP Priorities and Chair Initiatives
Presenter: Chris Pritsos, ESCOP Chair
Action Requested: Vote for Approval



Experiment Station
Committee on Organization
and Policy (ESCOP)

2022 Priorities and Initiatives
Chris Pritsos, ESCOP Chair

ESCOP Priorities

Support increased appropriations for USDA-NIFA to enhance capacity funding for research, Extension and education and fully-fund the AFRI competitive grants program.

Develop new funding opportunities to address Critical Infrastructure for Colleges of Agriculture at Land-grant Universities.

Adopt and implement a strategic plan for communications and marketing, including transitioning the National Impact Database Committee to a subcommittee of APLU's CMC.

Strengthen strategic partnerships with traditional and nontraditional entities.

Implement national and regional research among universities/institutions to help control the COVID-19 pandemic, support economic development, tackle climate change, and advance racial equity, as well as retain America's position as the world leader in agricultural research.

Chair's Initiatives

Fully integrate Diversity, Equity, and Inclusion as an essential component of all our programs.

Develop and implement strategies to equitably distribute potential funding for Critical Infrastructure for Colleges of Agriculture at Land-grant Universities.

Improve the organizational readiness and strategic capacity to deal with the next major crisis.

Strengthen partnership and engagement efforts with NIFA, including: Project CAFÉ' (Collaboratively Achieving Functional Excellence), the NIFA Reporting System, Land Grant University to You (LGU2U), comprehensive map of all branch experiment station sites, and other items that may arise.

Develop and implement a strategy to make increased capacity funding a priority for 1862, 1890, and 1994 land grant colleges and universities.

Position ESS and its LGU members to take a leading role in addressing climate change challenges as they impact agriculture and natural resources.

Develop an ESS Brand and advocacy toolkit to provide ESCOP leadership and ESS members with consistent messaging and resources focused on ESS advocacy and education priorities.

For more information, visit ESCOP (www.escop.info) or contact

Chris Pritsos (ESCOP Chair; pritsos@unr.edu)

Bret Hess (ESCOP Executive Vice Chair; bhess@unr.edu)

AGRICULTURAL EXPERIMENT STATIONS

A System to Address Challenges in Food and Agriculture

Our food and agricultural systems face complex challenges as the physical environment and human societies change. Public investment in research and development is key to increasing agricultural productivity, food safety and security, community resilience, environmental stewardship, and economic growth. As part of the Land-grant University system, and with the support of USDA funding, Agricultural Experiment Stations (AES) and agricultural research programs at universities and historically black and tribal colleges are uniquely positioned to improve natural resources, food and agricultural systems.

WHAT MAKES AES UNIQUE?



Institutions in all 50 states and many U.S. territories with research sites representing diverse ecosystems, communities, and food production systems



A family of land-grant universities directs research that reflects a diverse U.S. population and varied needs



Laboratories, greenhouses, computational centers, equipment, and tools focused on improving the food supply and protecting the environment



Skilled scientists, educators, students, and staff working in fundamental and applied research fields



Impartial, verified science, technology, and recommendations

THE POWER OF PARTNERSHIPS



Federal and state funding allows AES to mobilize scientists to respond quickly to local issues



Multistate projects bring together scientists from AES across the country to tackle regional and national issues, creating state synergy, reducing duplication, and leveraging funds, facilities, and other resources



A close relationship with Extension and educators creates a feedback loop from research to application



Strong relationships with government agencies, farm and commodity groups, and the private sector transform innovations into economic development and business opportunities



WHAT DO AES NEED NOW?

With enhanced support, AES and agricultural research programs at universities and historically black and tribal colleges can continue to address challenges in food and agriculture more efficiently than any other system in the world. Filling current gaps and needs will require:



Enhanced funding to support diverse research, enable exploratory and early-career projects, and give AES the flexibility to respond to emerging issues



Resources to improve campus infrastructure and facilities for cutting-edge research



Interdisciplinary, systems-level research



Broader focus on sustainability and wellness



Models and decision-making tools that account for interlinked variables and uncertainty



Harnessing advances in big data, genetics, nanotechnology, and other emerging fields



Strategies for communicating information and sharing technology



Experiment Station Committee on Organization and Policy (ESCOP)

<http://escop.info>

Agenda Item 3.0 ESCOP BLC Committee 2022 Plan
 Presenters: Glenda Humiston and Jeff Jacobsen
 Action: For Information

Budget and Legislative Committee (BLC, <http://escop.info/committee/blc/>)

Glenda Humiston will be in the final year of her two-year term as BLC Chair. Anton Bekkerman is the Incoming BLC Chair. Regional membership is relatively stable for ARD, NERA and SAAESD, with some rotations occurring for NCRA and WAAESD. Liaison membership has been stable and active. Monthly meetings on the fourth Tuesday of every month from 4:00 – 5:00 ET will continue.

The BLC Chair serves as the Experiment Station Section (ESS) representative to the BAA BAC (Budget and Advocacy) and CLP (Committee on Legislation and Policy) Committees. These BAA standing committees have moved their regular discussions and decision-making forward on the calendar to be more proactive and synchronized with the federal budget and policy cycles, which influences ESCOP BLC discussions. Currently, the BAC has asked respective Section BLC Chairs or similar leads to review the current Unified Ask priorities (across nine program lines) and requested budgets. For ESS and the ESCOP BLC, this specifically pertains to the Hatch Act (\$329.38M FY22 Unified Ask baseline), and with the ARD to the Evans-Allen Act (\$92.837M baseline). All Sections/Groups were to provide feedback on AFRI (\$700M baseline) and then identify 'one other program line' for advocacy consideration. We were directed to use the Unified Ask FY2022 as the baseline number, and then make Section recommendations to BAC for FY2023 and FY2024 in a relatively short timeframe. All Sections/Groups would then review, comment, and revise accordingly over the next several months to be prepared for the annual CARET/AHS interactions and systemwide advocacy efforts in CY2022.

ESCOP BLC has had robust discussions identifying programmatic enhancements and new directions for additional investments in Hatch and AFRI. BLC members articulated numerous examples that could serve as future advocacy talking points and messages, beyond the current focus on 'Climate Smart Agriculture.' In addition, several different approaches were discussed to serve as recommendations for proposed funding levels for Hatch and AFRI, such as numeric increases based upon highs from the last several budget cycles, a 25-50% increase, and mirroring the increase from China with public R&D support of 14% for each of the last eight years. The table and narratives below provide the initial ESS recommendations for Hatch and AFRI with a 100-word justification for each. Note that the AFRI justification is a minor modification to existing language.

Program	Enacted 2021 \$ Millions	BAA Rec 2022 \$ Millions	Proposed 2023 \$ Millions	Proposed 2024 \$ Millions
AFRI	435.000	700.000	798.00	910.00
Smith-Lever	315.000	400.050		
Hatch Act	259.000	329.380	399.38	469.38
Evans-Allen	73.000	92.837		
1890 Extension	62.000	78.740		
McIntire-Stennis	36.000	45.783		
Extension 1994	8.500	10.000		
Education Grants 1994	4.500	6.000		
Research Grants 1994	4.000	6.000		

HATCH Justification

“Climate-smart agriculture, in all its diverse systems has vast potential to be a critical contributor to solving the existential global threat of climate change. Strategic federal investment through Hatch funds in climate-smart agriculture research catalyzes bold innovation and site-specific practices that can lead to more than only marginal long-term impacts to reduce climate uncertainties. Improved practices, innovative and adaptive technologies, diverse human and improved physical infrastructure, and proactive policy incentives at the local, regional, and national levels will in aggregate produce diverse and equitable national impacts to mitigate climate change. Federal funds are matched and highly leveraged through local and private investments and implementations, increasing buy-in and adoption by a diverse set of stakeholder communities across the U.S.”

Revised AFRI Justification

“The National Institute of Food and Agriculture’s (NIFA) Agriculture and Food Research Initiative (AFRI) is the nation’s leading competitive grants program in the agricultural and natural resource sciences. Scientists, and educators use AFRI grants to address urgent problems facing our nation’s food supply, food supply, and the environment. Recent experiences demand increased attention on food supply chains, climate change, and threats imposed by drastic disruptions. Increased support is sought to build back the United States’ global leadership role in the agricultural and natural resource sciences as well as ensure domestic food security and accessibility issues. Research shows that each dollar invested in agricultural research yields \$17 in economic benefit for our Nation.”

Feedback is welcomed on the ESS budget recommendations and justifications for each. The initial BAA BAC discussion addressing all FY2023 and FY2024 recommendations will be in early December. All requests will be integrated into advocacy efforts for the next several years and will likely shift as strategic opportunities present themselves. Lastly, the ‘one other program line’ advocacy ask will continue to be Infrastructure, subject to advancements made during the current reconciliation bill and future opportunities.

CLP activities will occur over many months to feed into the 2023 Farm Bill. Section priorities have been submitted as previously reported. As other priorities and concepts of other Sections and Groups arise, CLP discussions will discuss and prioritize. Wherever possible, the ESCOP BLC (if applicable) and/or ESCOP Committee will be given opportunities to evaluate and make recommendations to our representatives on CLP and the PBD.

Finally, with a new advocacy contract on the horizon, the ESCOP BLC and its connectors to BAC and CLP will adjust to ensure that ESS interests are on the forefront of budget and advocacy activities. In addition, as the ESS Toolkit and other communication efforts move forward ESCOP BLC will engage. Future approaches and new processes will be integrated into the ESCOP BLC calendar discussions. As other entities within ESS identify programs that have budget and/or legislative elements, the ESCOP BLC will engage as appropriate.

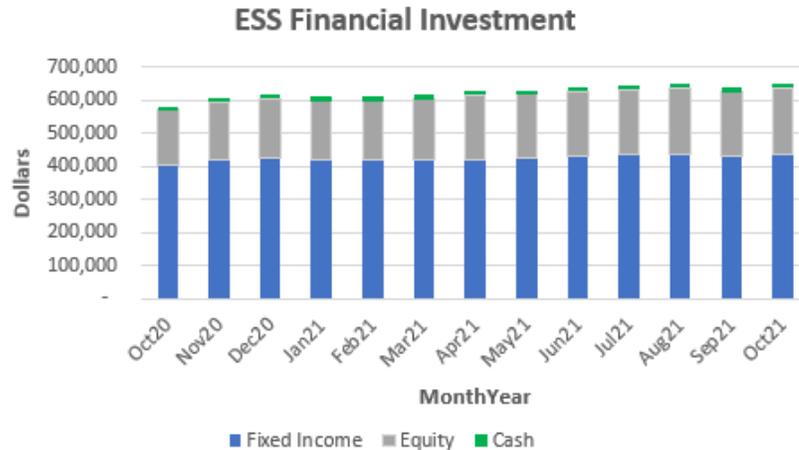
Agenda Item 4.0 ESCOP Finance Committee 2022 Plan
 Presenters: Moses Kairo and Jeff Jacobsen
 Action: For Information

Finance Committee (<http://escop.info/blcfinance/>)

The Finance Committee is a subcommittee of the ESCOP BLC that operates under the ESS Investment Policy. Finance Committee members are: Moses Kairo (Chair), Matt Wilson, Glenda Humiston, Saied Mostaghimi, Doug Steele, Chris Hamilton, and Jeff Jacobsen. Our TD Wealth Investment Managers are Matthew Kapp and Suzanne Moran. Our TD Wealth Manager is guided by our permissible ranges in asset allocation: cash (0-10%), fixed income (60-70%), and equity (30-40%) with an overall moderately conservative investment strategy. Currently, we are 67% fixed income, 31% equity and 2% cash. Management-wise, these funds can be liquidated by ESS and APLU to cash in a matter of days.

The Finance Committee will: 1) monitor our ESS investment, 2) make any policy or asset changes throughout the year, 3) proactively monitor ESS monetary needs throughout the year based upon the approved annual budget and any approved changes during the year, 4) provide regular reports to ESS and leadership, and 5) receive and integrate future ESS monetary via our regular meetings with our Investment Manager. We respectfully request that leadership or any ESS committee proactively communicate with the Finance Committee Chair or Vice-Chair on any future funding needs.

The performance from inception to the first ten months of 2021 (thirteen months total) is shown below as a graph and table. Data is from the last day of each month.



Period (MonthYear)	Fixed Income	Equity	Cash	Total
Oct20	406,013	164,659	11,747	582,420
Nov20	419,967	176,667	10,441	607,075
Dec20	424,033	181,768	11,007	616,808
Jan21	421,976	177,153	12,937	612,066
Feb21	420,653	177,483	13,026	611,161
Mar21	422,802	180,982	13,242	617,026
Apr21	423,093	193,280	11,031	627,404
May21	426,864	193,600	11,111	631,575
Jun21	429,673	197,589	11,930	639,192
Jul21	435,173	197,311	14,210	646,693
Aug21	436,628	201,976	14,290	652,894
Sep21	431,602	195,097	14,519	641,218
Oct21	437,485	200,422	11,317	649,225

Agenda Item 7.0: Policy Board of Directors
Presenter: Mark McGuire
Action: For Information

The BAA Policy Board of Directors (PBD) was convened by chair Tom Coon, *Chair, BAA Policy Board of Directors and Vice President of Agricultural Programs, Oklahoma State University* during the 2021 Joint COPs Virtual Meeting on Thursday, July 22, 2021. The following are highlights of the discussions and decisions of the PBD:

Policy Board Update

NIFA External Advisory Committee

- The External Advisory Committee will be replaced by a blue-ribbon panel to review NIFA procedures
- NAS will be forming and staffing the blue-ribbon panel review process

Strategic Realignment Recommendation

- In bill language, incorporate the three current appropriations accounts (research and education, extension, and integrated) into one NIFA agency account described in a single streamlined paragraph
- Single line of appropriations similar to NIH or NSF with bill language spelling out details
- No prioritization of any given line and does not change the authorizations or amounts to lines but cleaner advocacy process
- BAC preparing a request to House and Senate Ag Appropriations subcommittees to incorporate bill language next year or possibly into Farm Bill

Advocacy RFP

- Contract with Cornerstone is ending this calendar year, and the Advocacy RFP will identify a professional advocacy organization to help the BAA to accomplish the following:
 - Increase funding levels for key existing USDA programs
 - Identify new initiatives or opportunities in the Farm Bill
 - Develop a multi-year strategy
 - Develop initiatives beyond USDA in other agencies
- Mike Boehm (University of Nebraska Lincoln) the incoming BAC chair is chairing this committee
- RFP call for proposals early August
- RFP committee will initially screen (mid-September) and recommend best proposals to PBD

Communications and Marketing

- Executive Committee meeting biweekly with Forbes Tate Partners (FTP)
- Work with FTP to create a strategic communications plan for system
 - Strategic roadmap – communications strategies and implementation
 - Launching monthly calendar of events – suggestions for engagement – weekly social media for monthly theme to get things moving across the system
 - Engage university communicators - CMC is monitoring listserv 140-150 communicators
 - Momentum across LGUs for pushout of monthly calendar and toolkit (plug and play content)
- Assistant VP Communications and External Partnerships – Andrea Putman
 - Previous service at SoAR – 6.5 years
 - FTP contract extended through August to assist Andrea

CMC Vision

- Designation as a standing committee of the BAA on par with the BAC and CLP

- Update the rules of operation
- Change composition of committee – more communicators and fewer administrators
 - 5 new regional communicators plus ACE, APS, NIDB, NIFA
 - 18 – 15 voting and 3 ex officio members --- remove several of current members
- Designate NIDB committee as a subcommittee of CMC (ECOP and ESCOP approve this change)

CARET Update

- Caron Gala appointed as the Executive Director for CARET
- CARET strategic planning this year – Paul Patterson (chair BAC) webinars for AHS and CARET
- Better defining the role of AHS with CARET delegates – making the most of their efforts
 - Focusing on relationship of AHS – selection and coordination of CARET delegates – strengthening accountability – stronger connections with members of Congress
- March 6-9, 2022 - CARET-AHS in person meeting at the Omni Shoreham is being planned

FY23 Advocacy Priorities Process

- CLP is requesting topical input for next 2024 Farm Bill
- BAC FY23 seeking input from each section outlining the justification and impact of increases for existing lines “increased funding will help address this challenge”
- Plan for priorities done before end of calendar year – adjust before Hill visits
- 85% budget is in the 6 top lines – proposals for additional funding should include (guiding outline only...not approved by BAC):
 - I. BAA Section or Council
 - II. Name/Title of Individual Submitting the Request
 - III. Current NIFA/Farm Bill Funding Line and Amount
 - IV. Amount Increase Requested (or New Funding Line)
 - V. Background on Current Funding Line (Purpose, Legislative Language, Eligibility)
 - VI. Justification for Increase/New Request
 - VII. Stakeholders
 - VIII. Closing Comments
- November PBD meeting – 1st draft of priorities will be discussed
- Marty Draper: For future discussion - Suggest we adopt a strategy where we first support our core programs, but also include a "secondary" program or two each year also. We will NEVER grow those programs and we will continue to lose programming power over time.

Next PBD meeting is scheduled for November 11 from 3:00-4:30 ET

- Voting on advocacy priorities – adoption of contract advocacy firm – budgets 2022 FANR and CARET – discussion about BAA assessments

Agenda Item 10.0: Science and Technology Committee (STC) 2022 Plan

Presenters: Bernie Engel and Bret Hess

Action Requested: Vote for Approval

Committee Members:

<p>Chair: Bernie Engel (NCRA) Past Chair: Jody Jellison (NERA)</p> <p>Delegates: Alton Thompson (ARD) John Yang (ARD) Frank Casey (NCRA) Shibu Jose (NCRA) Indrajeet Chaubey (NERA) Mark Hutton (NERA) Susan Duncan (SAAESD) Nathan McKinney (SAAESD) Gene Kelly (WAAESD) Chris Davies (WAAESD)</p> <p>Executive Vice Chair: Bret Hess (WAAESD ED) Jennifer Tippetts (WAAESD Admin Mgmt)</p>	<p>Liaisons: Wendy Powers (ECOP) Jim Farrar (NIPMCC; Pest Mgmt Subc) Tim Killian (SSSC; Social Sci Subc) Tim Conner (NIFA) Robert Matteri (USDA ARS)</p>
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ESCOPE Web: <http://escop.info/committee/scitech/>

<http://escop.info/committee/national-integrated-pest-management-coordinating-committee-nipmcc/>

<http://escop.info/committee/social-sciences-subcommittee-sssc/>

S&T Committee (STC)

Regular STC business encompasses reviews, reactions, and feedback to relevant national-level reports and findings. The STC held a hybrid meeting on September 30, 2021 and met twice over Zoom since. The committee has focused on preparing a plan to support the 2022 ESCOP Priorities and Chair’s Initiatives. Information attached to the remainder of this agenda brief illustrates the STC plan for 2022.

National Integrated Pest Management Coordinating Committee (NIPMCC)

The NIPMCC annual meeting was held virtually Tuesday October 19th and Wednesday October 20th. In addition to several national and regional reports, NIPMCC introduced the Public IPM Enterprise Strategic Plan Concept then held breakout sessions on the Vision and Mission for Public IPM Enterprise. The goal is to have a strategic vision document prepared before the International IPM Symposium scheduled for February 28, 2022–March 3, 2022.



ESCOP Priorities

1. Support increased appropriations for USDA-NIFA to enhance capacity funding for research, Extension and education and fully-fund the AFRI competitive grants program.
2. Develop new funding opportunities to address Critical Infrastructure for Colleges of Agriculture at Land-grant Universities.
3. Adopt and implement a strategic plan for communications and marketing, including transitioning the National Impact Database Committee to a subcommittee of APLU's CMC.
4. Strengthen strategic partnerships with traditional and nontraditional entities.
5. Implement national and regional research among universities/institutions to help control the COVID-19 pandemic, support economic development, tackle climate change, and advance racial equity, as well as retain America's position as the world leader in agricultural research.

Chair's Initiatives

1. Fully integrate Diversity, Equity, and Inclusion as an essential component of all our programs.
2. Develop and implement strategies to equitably distribute potential funding for Critical Infrastructure for Colleges of Agriculture at Land-grant Universities.
3. Improve the organizational readiness and strategic capacity to deal with the next major crisis.
4. Strengthen partnership and engagement efforts with NIFA, including: Project CAFÉ' (Collaboratively Achieving Functional Excellence), the NIFA Reporting System, Land Grant University to You (LGU2U), comprehensive map of all branch experiment station sites, and other items that may arise.
5. Develop and implement a strategy to make increased capacity funding a priority for 1862, 1890, and 1994 land grant colleges and universities.
6. Position ESS and its LGU members to take a leading role in addressing climate change challenges as they impact agriculture and natural resources.
7. Develop an ESS Brand and advocacy toolkit to provide ESCOP leadership and ESS members with consistent messaging and resources focused on ESS advocacy and education priorities.

For more information, visit **ESCOP** (www.escop.info) or contact

Chris Pritsos (ESCOP Chair; pritsos@unr.edu)

Bret Hess (ESCOP Executive Vice Chair; bhess@unr.edu)

2022 ESCOP STC Work Plan Outline

Next steps, action items and deliverables for consideration at the APLU fall meeting.

- a) Work on the gaps and needs identified in the ESCOP Grand Challenges summary sheet (*ESCOP Priority 3; Chair Initiatives #3, 7*)
 - i) Acknowledge the STC efforts and explain how the summary documents will be used
 - ii) Update the national-level success stories
 - (1) Create consistent messaging by including local information on the national flyer
 - iii) Ask the NRSP1 management committee about the possibility for the NIMSS programmers to use hashtags as a method to enhance connectivity and demonstrate the linkages regarding how the multistate committees are working on the Grand Challenges
- iv) **Interdisciplinary systems-level research (ESCOP Grand Challenge Gap & Need)**
 - (1) Enhance collaboration among multi-state committees to more effectively address the ESCOP Grand Challenges (*ESCOP Priority 4; Chair Initiative #3*)
 - (a) Possible approaches to incentivize with financial support
 - (i) Regional off-the-top funding
 - (ii) ESS investment fund
 - (iii) Regional carryover funds
 - (iv) Regional/National Assessments
 - (v) Competitive Conference Grants
 - (vi) Create an Emerging Innovation NRSP
 - (b) Climate Science as a Top Priority (*ESCOP Priority 5; Chair Initiative #6*)
 - (i) Climate change in the Grand Challenges with overlap in research priorities
 - 1. Sustainability, competitiveness, & profitability of food & agriculture
 - a. Reduce the carbon footprint of agriculture
 - b. Improve the energy efficiency of agricultural systems
 - c. Enhance crop and livestock productivity
 - d. Improve soil health
 - e. Find new ways to conserve water
 - f. Develop non-chemical pest and weed control
 - g. Improve producer profitability
 - 2. Adapting to & mitigating the impacts of climate change
 - a. Reduce greenhouse gas emissions and improve carbon sequestration on agricultural lands
 - b. Collect robust data from climate modeling and predictions
 - c. Develop decision-making tools that account for variability and uncertainty
 - d. Breed crops and livestock that can tolerate water stress and extreme temperatures
 - e. Improve climate change education

- f. Guide policy and regulation and enhance global cooperation
 - 3. Environmental stewardship & sustainable practices
 - a. Improve systems-level data analysis and modeling tools
 - b. Assess the value of ecosystem services
 - c. Develop plants and livestock that require fewer non-renewable inputs
 - d. Manage waste and runoff
 - e. Reduce use of chemicals that can harm environmental health
 - f. Reduce the carbon footprint of agriculture
 - (ii) Utilize results from the ESS Session on Climate Change
 - (2) Respond to the Blue Ribbon Panel
 - (i) Fall Listening Session
 - (ii) Identify opportunities upon release of the written report
- v) Evidence based guidance for policy and regulation (ESCOP Grand Challenge Gap & Need) (ESCOP Priority 3, 5; Chair Initiative #7)**
 - (1) The Secretary makes policy and we need science to support policy, should include information on the administration's priorities and the following areas
 - (a) Bioproducts for energy and aviation
 - (b) Food supply chain
 - (c) Food security and food safety
 - (d) Data and technology
 - (2) Convene multistate committees to help inform policy
- vi) Strategies for communicating information and sharing technology (ESCOP Grand Challenge Gap & Need)**
 - (1) Develop a communications and advocacy toolkit
 - (i) Create an infographic and map of the system's branch stations
 - (i) Link to NIMSS to identify where multistate committee participants are performing their research
 - (ii) Incorporate updated Grand Challenges success stories
 - (iii) NIFA is supporting and promoting experiment stations/continue communications with NIFA so that the agency will be our advocate
 - (i) Involve NIFA Communicators
 - (iv) Bring in Caron Gala to turn the conversation around and help determine a great strategy on how to bring these documents to life
 - (v) Engage CMC and Andrea Putman
- b) Additional work to support the 2022 ESCOP Chair
 - i) Include a liaison from the 1994s (ESCOP Priority 4; Chair Initiative #1)
 - ii) Partnership opportunities with ECOP and Extension
 - (1) Diversity Equity and inclusion

- (2) Climate Mitigation, Resiliency, and Adaptation
- (3) Economic and Workforce Development
- (4) Healthy Equity & Well-Being
- (5) Urban Agriculture
- (6) Multi-State Committees
- iii) Explore opportunities with Robert Bonnie, NRCS
(*ESCAP Priority 4; Chair Initiative #1, 3, 5, 7*)
 - (1) Connections with producers
 - (2) Request a liaison

- c) Development of a faculty research award
(*ESCAP Priority 4, 5; Chair Initiatives #4,7*)
 - i) One winner per region
 - (1) Regions provide AAAS membership
 - (2) Monetary Award for each regional winner
 - (a) \$1,000/awardee?
 - (i) To be paid from ESS
 - (ii) Include with the NIFA grant that supports teaching and Extension awards

- d) Be flexible and nimble to address emerging issues throughout the year
(*ESCAP Priority 5; Chair Initiative #3*)

Agenda Item 12.0: ECOP 2022 Action Plan
Presenter: Bev Durgan, ECOP Liaison
Action: For Information



2021-2022 Extension Committee on Organization and Policy Action Plan

Wendy Powers, University of California, Chair

As Chair, my goal is to advance ECOP Strategic Directions, focusing on priorities, as identified by member institutions, and building on successes and lessons learned during the recent past. The intended outcome is a cohesive Cooperative Extension System and stronger member programs, inclusive of all.

ECOP's 2020-2023 Strategic Directions are:

- 1) Increase visibility and recognition of the Cooperative Extension System as a provider of evidence-based education and services and as a valuable partner to federal and national non-federal entities through improved communications of program impacts and successes.
- 2) Support the professional success of Extension leadership through tailored professional development opportunities including training, webinars, in person meetings, networking opportunities and more.
- 3) Expand federal and non-federal resources available to Extension.
- 4) Identify ongoing and emerging CES priorities and national issues and provide mechanisms for collective action.

During the 2021-2022 year, these Strategic Directions will be prioritized and advanced through the following Action Plan.

EMPHASIS AREAS and ACTION STEPS

Increase visibility and recognition of the Cooperative Extension System as a provider of evidence-based education and services and as a valuable partner to federal and national non-federal entities through improved communications of program impacts and successes.

1. Provide existing Cooperative Extension supporters, such as NIFA, USDA, and other aligned national advocacy groups with strong impact messaging and evidence.
 - Provide evidence to NIFA leadership, program liaisons, and other key personnel of Extension's role in providing value to their investments – leveraging of research and engagement initiatives of LGUs.
 - Engage with NIFA, and especially the new employees, to increase their ability to advocate for capacity-style funding and positioning Extension as central to integrated AFRI funding opportunities.

Extension Committee on Organization & Policy (ECOP)
Location: APLU, 1307 New York Ave. NW, Washington, DC 20005 – 202-478-6029

2. Increase understanding and valuation of the Cooperative Extension System amongst staffers and members in Congressional committee and home offices.
 - Create and disseminate resources, talking points, and guidance in support of Extension leaders and advocates carrying the message of Extension’s importance to congressional offices in Washington and in their home districts.
 - Engage regularly and intentionally with elected officials, appointees, and staffers.
3. Develop new partners to tell our story.
 - Encourage ECOP Program Action Teams to include multiple non-Extension partners in planning conversations, to increase awareness of CES and build new advocates for CES success.

Expand federal and non-federal resources available to Extension.

1. Promote year-round advocacy strategies and strengthen a Unified Ask to increase NIFA capacity funding (Smith-Lever and 1890s Extension).
 - Engage ECOP and APLU partners, including ESCOP, to implement the APLU advocacy schedule throughout the budget and regulatory cycle.
 - Enlist and support Extension professionals (PILD attendees) and supporters (ECOP Budget and Legislative Committee, CARET, ECOP 4-H Leadership Committee, and the BLC’s 4-H Advocacy Sub-Committee) to carry forward the value of Extension by equipping them with advocacy materials.
2. Strengthen and expand partnerships with non-NIFA federal entities and private funding entities by co-creating a roadmap to advance initiatives.
 - Continue current initiatives on private funding partnerships and those with non-NIFA federal agencies.
 - Intentionally seek collaborations and partnerships to increase programming with underserved communities, including urban programming.
 - Conduct regular outreach to key agencies and other prospective partners with intersecting missions including, but not limited to, NRCS, NSF, NOAA, the Centers for Disease Control and Prevention, the Department of Health & Human Services, and others.
 - Through the Program Action Teams leadership, explore partnership potential with federal and non-federal organizations that have intersecting missions and values in the work areas of Nutrition, Health and Wellness, Positive Youth Development, Climate Change, Water and Food Security, Community Resource and Economic Development, Urban Agriculture, and Workforce Development.
3. Maintain a strong working relationship with ESCOP and appropriate ECOP committees to capture opportunities for collaboration and elevate the importance of Extension in LGU research enterprises.

Identify ongoing and emerging CES priorities and national issues and provide mechanisms for collective action.

1. Further advance the structure and support for deliberative, forward-looking, result-oriented actions from ECOP committees.
 - Develop a strategy to deploy reserve funding to support ECOP Committees in advancing System success.
2. Develop processes to bring forward new priorities and sunset developed topics.
3. Work with ECOP committees to ensure the Cooperative Extension System addresses nationally relevant issues through a Diversity, Equity, and Inclusion lens that reflects rural, urban, and suburban needs.

Support the professional success of Extension leadership through tailored professional development opportunities including training, webinars, in person meetings, networking opportunities and more.

1. Provide opportunities for Extension Directors/Administrators to learn from each other and think, collectively, how to position the System for future success. This includes but is not limited to an annual conference (NEDA) and periodic Learning for Leaders events.
 - Evaluate current opportunities and address gaps with special focus on sharing success stories and best practices for sharing those stories with external audiences.
 - i. Emphasize advancement towards a multicultural organization.
2. Continue to develop and improve upon the understanding about the role of ECOP and ECOP activities.
 - Provide regular updates on ECOP activities, through the ECOP Monday Minute and virtual Section briefings.
3. Support the administration of ECOP awards that recognize excellence in Extension and a commitment to diversity, pluralism, and innovation in programs that impact Extension audiences.

Agenda Item 13.0: NIFA Reporting System 2022 Plan
Presenter: Bret Hess
Action: For Information

Association of 1890 Research Directors –

- Dr. Ami Smith, Associate Vice President & Director Of Gus R. Douglass Land-Grant Institute, West Virginia State University, 304-204-4305, smitham@wvstateu.edu
- Ms. Tracie J. Bishop, Program Manager and REEport Site Administrator, University of Maryland Eastern Shore, 410-651-6383, tjbishop@umes.edu

North Central Association of Agricultural Experiment Station Directors –

- Dr. Casey Hillmer, Assistant Director for the Wisconsin Agricultural Experiment Station, University of Wisconsin-Madison, 608-262-2397, casey.hillmer@wisc.edu
- Ms. Lynn Laws, Experiment Station Research Programs Coordinator, Iowa State University, 515-294-4544, lynnlaws@iastate.edu

Northeast Regional Association of Agricultural Experiment Station Directors –

- Dr. John Dieffenbacher-Krall, Assistant Director, Maine Agricultural and Forest Experiment Station, 207-581-3211, john.dieffenbacherkrall@maine.edu
- Ms. Rubie Mize, Research Coordinator, Maryland Agricultural Experiment Station, 301- 405-4049, rgmize@umd.edu

Southern Association of Agricultural Experiment Station Directors –

- Dr. Susan Duncan, Associate Director of Virginia Agricultural Experiment Station, Virginia Tech, 540-231-3724, duncans@vt.edu
- Ms. Cynthia Nichols, Budget Director for AgResearch, University of Tennessee Institute of Agriculture, 865-974-7122, cnichols@utk.edu,

Western Association of Agricultural Experiment Station Directors –

- Dr. John Talbott, Associate Director Oregon Agricultural Experiment Station and Director, Sun Grant Western Regional Center, 541-737-2194, John.Talbott@oregonstate.edu
- Ms. Ellen Yeates, Program Coordinator for REEport and NIMSS, Washington State University, 509-335-9811, eyeates@wsu.edu

Other Members -

- Ms. Chris Hamilton, NCRA Assistant Director and NIMSS System Administrator, 484-716-7645, christina.hamilton@wisc.edu
- Mr. David Leibovitz, Coordinator, NERA, University of Rhode Island, 401-874-4801, david_leibovitz@uri.edu
- Dr. Bret Hess, Executive Director, WAAESD, University of Nevada, 307-760-3319, bhess@unr.edu
- Ms. Katherine Webb-Martinez, Interim Director, Program Planning and Evaluation, UC Division of Agriculture and Natural, 510-987-0029, Katherine.Webb-Martinez@ucop.edu

Why a New Reporting System?

The origin of NRS is the 2015 Panel of Experts

LGUs asked NIFA to streamline reporting, reduce the burden, and provide a unified reporting system

Building on new technology to deliver more functionality and meet USDA/federal IT security standards

Once finished, NIFA will retire REEport and several other legacy applications

Core Design Principles

Data Fields included only if it is required by law or regulation or is used by NIFA for other purposes (budget justification)

Design, build, and test with the end users at the table

Eliminate duplicative reporting or requests for data

Collect actuals rather than estimated data

Eliminate supplemental documents (REEport financials, OGFM Supplemental).

If the information is relevant to post-award reporting, it should be in the NRS (civil rights data)

High-Level Accomplishments

Built new platform that meets federal IT security standards

Laid foundation for integrated reporting (extension/research initiations; integrated and multistate projects marked in NRS)

Reduced Plans of Work from ~80 pages to average of 7-8 pages

Reduced Annual Reports of Accomplishments from ~200 pages to 20-30 pages

Released a streamlined research initiation form that reduced input and review times by ~50%

Recent Activities

Added McIntire-Stennis, Animal Health and Disease Research, and RREA to NRS

Accession numbers added to dashboard view

Classifications (number of lines expanded; error message if duplicate lines are entered or percentage is less than 5%)

Export bugs fixed

“Updated date” added to dashboard

Upcoming Enhancements

Notifications to users when project status changes

Filtering and export enhancements for the project/program view to allow more individualized tailoring of the view and export

Co-project director listing

Removing users and critical issues

Project cancelations

November 12 release will add NIMSS identifiers to Hatch Multistate projects (1862) and improve performance of the NRS

December release is still under discussion but could include accession numbers in the full export; the revamped project view

Significant Advances on the Horizon

NIMSS integration for multistate research projects

Results Module - final design stage

- To begin user testing soon
- New results form will be the basis for all reporting –old progress and final technical report; Annual Report of Accomplishments and Results
- Should eliminate the duplicate reporting when research and extension were in different systems
- Annual Report of Accomplishments will be rolled up from the individual results
- Annual Report due April 1; seeking approval to change Plan of Work due date to July 1
- Results Questions
 - In 2-3 sentences, briefly describe the issue or problem that your project addresses.
 - Briefly describe, in non-technical terms, how your major activities helped you achieve, or make significant progress toward, the goals and objectives described in your non-technical summary.
 - Briefly describe, how your target audience benefited from your project’s activities.
 - Briefly describe how the broader public benefited, or may benefit in the future, from your project's activities.

Financial Module - early design phase

- Will consume OGFM supplemental (1862 only), REEport financial, and other information as needed by NIFA (for example, FTEs)

Program of Research requirement for Animal Health and Disease Research and McIntire-Stennis projects are likely to be eliminated in 2022

Federal Register notice in progress

- Permission to collect publication DOI and ORCID
- DOIs should reduce input burden for publications
- Pilot with USDA library to make NIFA-funded publications available to the public

Application Programming Interface under discussion – pull patent disclosure data from new iEdison

Notes of Particular Interest for Early 2022

Financial reports are due February 1, 2022 (REEport).

All capacity projects that completed in FY2021 will complete their reporting requirements in REEport.

All capacity projects that were active in REEport in FY2021 will file their financial reports in REEport (this is different from what NIFA suggested previously).

Capacity projects that were approved in NRS to begin in FY2021 will file financial reports manually. NIFA will send instructions shortly.

Agenda Item 14.0: LEAD21 2022 Plan

Presenter: Alton Thompson

Action: For Information

Class 18 - Call for Applications

The LEAD21 program is intended to meet the future needs for leadership development of faculty, specialists, district and regional directors, program and team leaders, research station and center directors, department heads and chairs, and others in the universities' colleges of agricultural, environmental, natural resources, veterinary sciences, and human sciences and USDA/NIFA. Individuals from land-grant, NARRU institutions and USDA are encouraged to participate.

The primary purpose of LEAD21 is to develop leaders in land grant institutions and their strategic partners who link research, academics, and extension in order to lead more effectively in an increasingly complex environment, either in their current position or as they aspire to other positions.

Program goals are for participants to:

- Enhance application of skills and knowledge learned in four core leadership development areas (change, conflict, communication, and collaboration).
- Develop a peer leadership network in order to enhance personal leadership practice, collaboration, and diversity of perspective.
- Develop and implement an individual leadership development process.

Program components include:

- Three sessions
 - Session 1: June 12 - 17 2022; Chicago, IL
 - Session 2: October 3 - 6, 2022; Denver, CO
 - Session 3: February 20 - 24, 2023; Washington, DC
- Independent learning experiences

Program cost:

- \$9,750 (includes lodging, meals, and educational materials for all three sessions)
- Limited scholarship available

Application deadline: November 30, 2021 for full consideration

Apply online: www.lead-21.org/program-application-schedule/

Additional Information:

Rochelle Sapp, PhD
LEAD21 Program Director
rsapp@uga.edu
Cell: 979-571-3067

Agenda Item 15.0: ESS Climate Change Leadership Strategies
Presenter: Gary Thompson
Action: For Information

ESS Leadership Strategies: Adapt to and Mitigate the Impacts of Climate Change

ESS Meeting Session III

September 29, 2021

Strategic Leadership Buckets

1. *Organize interdisciplinary teams to support specific climate change programs*
2. *Enable climate change research initiatives through strategic investment*
3. *Engage internal and external agencies to address specific climate change issues*

Organize interdisciplinary teams to support specific climate change programs

- Build faculty-driven teams to prepare for federal funding opportunities, identify gaps, build partnerships, and use resources strategically
- Engage non-agricultural scientists, especially social scientists, computer scientists, and physical scientists to integrate with life scientists and engineers
- Evaluate and integrate environmental and social justice activities into climate change programs

Enable climate change research initiatives through strategic investment

- Enable faculty-directed initiatives with seed grant funding for well-defined challenge areas, multi-disciplinary student-faculty groups, and to stimulate regional multistate projects addressing climate challenges
- Seek out opportunities through university-wide programs, using proven structures such as established institutional science hubs to take a systems approach to address climate change
- Advocate for increased NIFA funding (AFRI and capacity) to support targeted research areas and to increase the number of agricultural-based climate change researchers who can collaborate with existing expertise

Engage internal and external agencies to address specific climate change issues

- Promote participatory action research as a means to link producers with scientists, increasing adoption and identifying opportunities for utilization of data from producers
- Seek out programmatic opportunities across federal and state agencies through a whole-of-government approach
- Identify regional/geographical issues and coordinate regional approaches, while reducing fragmented and possibly duplicative activities into an integrated national platform/framework
- Focus on systems approaches through institutional collaborations to develop proactive avoidance and mitigation efforts to minimize the impacts of drastic disturbances (e.g. fire, drought, extreme weather)

ESS Grand Challenge 2: Adapt to and Mitigate the Impacts of Climate Change Research Priorities

Reduce greenhouse gas emissions and improve carbon sequestration on agricultural lands

- Engage the Natural Resources Conservation Service (NRCS) to establish minimum soil organic carbon (SOC) thresholds for each crop, planting and grazing practice, and soil type in the United States
- Establish baselines for carbon sequestered in soils as the result of adopting soil carbon sequestration practices (cover crops, no-tillage, collective grazing, etc.)
- Support climate resiliency as well as “adapting and mitigating” because agriculture and forestry is the sector that can reduce greenhouse gas emissions

Collect robust data for climate modeling and predictions

- Promote use of modern sciences and new technologies (e.g., AI, synthetic biology, machine learning, big data, quantum computing, decision-support systems) as a means to innovate and accelerate
- Address challenges preventing LGU scientists from obtaining producer data

Develop decision-making tools that account for variability and uncertainty

- Develop remote sensing technologies to verify adoption of soil carbon sequestration practices
- Increase the number of data scientists with expertise in artificial intelligence to handle data generated by producers
- Create and share data across geographies

Breed crops and livestock that can tolerate water stress and extreme temperatures

- Develop new plants for greater carbon yields
- Develop adapted varieties and cultivars for local environments
- Use modern breeding methods and data handling techniques to shorten the GxE timeframe
- Use systems approaches to precision nutrition, improved waste management systems, feeding groups of animals instead of individuals

Improve climate change education

- Engagement and demonstration are key to adoption (participatory research engages the community and external audiences)
- Create regional-level efforts to connect food producers and consumers into the research process and create greater buy-in for research solutions and recommendations
- Develop citizen science approaches to speed up the adoption

Guide policy and regulation and enhance global cooperation

- Engage State Departments of Agriculture to serve as an aggregator of carbon credits, marketing and selling credits in the carbon credit market
- Engage stakeholders to help guide science and policy around climate change both on the farm and at the experiment stations.
- Work to build stakeholder incentives to address the tapestry of land ownership and land credits to set aside less productive land

- Address water quality and quantity policy and conflicts across federal and state agencies and academia through a whole-of-government approach
- Evaluate and integrate environmental and social justice activities into climate change programs
- Address increased water intake and storage across states in a systematic approach

Summary Paragraphs

Based on the expertise at your institutions, what are 2-3 strategies that leaders can take in the next 3-5 years that have regional or national potential to adapt to or mitigate climate change?

1. Land-grant universities and the Natural Resources Conservation Service (NRCS) can work together to establish minimum soil organic carbon (SOC) thresholds for each crop, planting and grazing practice, and soil type in the United States. The minimum SOC will establish a baseline for carbon sequestered in soils as the result of adopting soil carbon sequestration practices (cover crops, no-tillage, collective grazing, etc.). By doing so, NRCS will eliminate the need for third-party verification, which can reduce most of the value from the producer and cause the adoption rate to be lower than the ideal adoption rate. Remote sensing technology can verify most of these practices. The State Departments of Agriculture can act as an aggregator of carbon credits, marketing and selling credits in the carbon credit market.
2. Breeding programs are examples of long-term climate research essential to combating climate change. We develop varieties and cultivars for their local environments; however, there are concerns about creating and sharing data across geographies and shortening the G x E time frame. Land-grant universities (LGUs) provide services to communities often overlooked by industry, yet it is difficult to aggregate data to scale. The system needs more data scientists with expertise in artificial intelligence to handle data generated by producers. It is a challenge for LGU scientists to obtain producer data. We need to use modern science, including AI, synthetic biology, machine learning, and quantum. These tools will aid in developing new plants and animals that are more adaptive to a changing climate as well as mitigating the causes of climate change.
3. Increase funding and collaborations to study food systems and identify the impact of animals on reducing the human food footprint. Ruminant animals have the unique opportunity to consume human inedible feeds (by-products and co-products of human food production as well as forages) and upscale the nutrients into high quality animal protein and nutrients or fiber. Manipulating the integration of animal husbandry practices to minimize environmental losses is important to utilize embedded food, energy and water in crops harvested as well as manage range and forested areas to minimize damage associated with fire.
4. Build faculty-driven teams to prepare for federal funding opportunities. Attract faculty and staff through direct communication with department heads and the use of retreats to identify gaps, build partnerships, and use resources strategically. Give the team enough time (3 to 4 months) to develop a plan, and then evaluate the plan as the basis for investment. Collaborate with faculty outside of the college/station and collaborate with Extension to bring together a wide range of experts and learn from each other. State-wide or regional conferences also provide opportunities for team-building activities. We have the capacity to support climate resiliency. It is not only “adapt to and mitigate”, agriculture and forestry can actually reduce climate change. The focus needs to be on

systems approaches and inter-institutional collaborations. Include other experts by engaging non-agricultural scientists, especially social science experts to integrate with life scientists in meaningful ways.

5. Increase capacity funding to support regional level efforts as well as funding for targeted research areas and hires at universities to increase the number of agricultural-based climate change researchers who can collaborate with existing expertise. Invest in seed grant funding through direct challenge areas, limiting the challenge areas to well-defined topics. Provide funding to stimulate regional activities to develop more effective multistate projects on climate. For example, the North central region is using the rapid response mechanism (500-series) to create seed grant proposals on climate, demonstrating the usefulness of the multistate research projects. Seek out opportunities for investments through university-wide programs, using proven structures such as established institutional science hubs to take a systems approach to address climate change.
6. Engagement and demonstration are key to adoption. Create regional-level efforts to connect food producers and consumers into the research process and create greater buy-in for research solutions and recommendations. Participatory research engages the community and external audiences. Engaged stakeholders can help guide science and policy around climate change both on the farm and at the experiment stations. The citizen science approach can shorten the pipeline and speed up the adoption. We need to develop models to advance the science and get better adoption. Agrivoltaics are a good example of energy-efficient solar systems integrated into production systems that can be shown to stakeholders. We need to work to build stakeholder incentives to address the tapestry of land ownership and land credits to set aside less productive land. We know that production varies greatly from field to field, and so we need to promote the change of problem areas to other uses.
7. Forestry and rangelands management present unique opportunities to mitigate climate impacts. The use of small ruminants to clear underbrush and reduce fuel loads in high fire risk areas is a practice beginning to be tested in areas of the Western United States. Rangeland areas that have suffered environmental damage due to drought, fire and other disturbances are often subject to invasion by non-native invasive species that serve as fuel for the large wildfires that have plagued the West in recent years. These programs need further development as well as those seeking to reduce fuel loads in the forested areas of the West. Land-grant institutions working together with State and Federal Agencies as well as communities in these areas can develop strategies to save these important resources as well as the communities they serve.
8. Water, inextricably linked with climate change, has regional impacts on agriculture and forestry. The northeast is experiencing intense and frequent heavy precipitation events, whereas the central region has more frequent clusters of intense thunderstorms. Prolonged droughts and widespread water stress are common in the west, with short-term droughts occurring across the country. Catastrophic storms resulting in flooding and increased sediment and nutrient run-off in some areas are in stark contrast to reduced snowpack, drought, and the risk of wildfires in other areas. A comprehensive approach among states is necessary to increase water intake and storage. Addressing water quality and quantity policy and conflicts across federal and state agencies and academia through a whole-of-government approach could be an important farm bill topic.