

February 24, 2023

MEMORANDUM

TO: Laura E. Lyons

Interim Vice Provost for Academic Excellence

FROM: Ania Wieczorek

Interim Dean and Director of Research and Cooperative Extension and Interim Associate Dean of Academic and Student Affairs

College of Tropical Agriculture and Human Resources

SUBJECT: RESPONSE TO THE 2022 CTAHR ACADEMIC PROGRAM REVIEW

The College of Tropical Agriculture and Human Resources (CTAHR) underwent a program review October 26-28, 2022. CTAHR's response to the Academic Program Review Report is attached. In addition, this report responds to CTAHR-wide weaknesses, threats, and opportunities provided in the Strength, Weakness, Opportunity, and Threat Program Review Report from CTAHR Administration. Following the college responses are the responses from each academic unit included in the review.

Attachment

College of Tropical Agriculture and Human Resources Program Review Report October 2022

The College of Tropical Agriculture and Human Resources (CTAHR) underwent a program review October 26-28, 2022. On behalf of Interim Dean Anna (Ania) Wieczorek, Associate Dean Walter Bowen, Interim Associate Dean Jeff Goodwin, and CTAHR, we express our sincere appreciation to the review team for their input and contributions to the external program review report.

The University of Hawai'i at Mānoa (UHM) was established in 1907 as the College of Agriculture and Mechanic Arts under the Morrill Act (U.S. land grant legislation). In 1920, University status was achieved and designated CTAHR as a tri-fold mission college that provides 1) Academic/Instruction, 2) Research, and 3) Extension. Currently, CTAHR is comprised of six interdisciplinary academic departments (Family and Consumer Sciences; Human Nutrition, Food and Animal Sciences; Molecular Biosciences and Bioengineering; Natural Resources and Environmental Management; Plant and Environmental Protection Sciences; Tropical Plant and Soil Sciences), four centers, and county operations on Kaua'i, O'ahu, Moloka'i, Maui, and Hawai'i Island. These units deliver undergraduate (9) and graduate (16) degrees across agricultural sciences and family resource disciplines. In 2022 CTAHR collectively received \$29 million in extramural funding.

This report responds to CTAHR-wide weaknesses, threats, and opportunities provided in the Strength, Weakness, Opportunity, and Threat (SWOT) Program Review Report.

Following the CTAHR-wide responses are the responses from each academic unit included in the review.

It is important to note that the Program Review Report includes some weaknesses and threats that were present in the previous external review. Due to an unforeseen pandemic, a hiring freeze, cuts and uncertainties regarding our operating budget, and a decrease in CTAHR personnel, there needed to be more time and college resources to implement many of the improvements recommended by the review committee in 2015.

CTAHR-Wide Program Review Report October 2022

Weaknesses

Leadership

• Administrative instability (five deans and/or interim deans over 12 years) combined with a disproportionate loss of faculty and staff due to retirements while under a hiring freeze has created significant gaps in expertise and staff and weakened morale across the college. Response: At a national level, College Deans play an essential role in the ongoing success of their college, but they tend to serve terms of five years or less on average. The high turnover rate, combined with the various challenges of recruiting and developing new leaders from less-than-robust candidate pools, makes the longevity of deans a vital matter for higher education. Additionally, the geographic location of Hawai'i and the high cost of living further complicate the recruitment of CTAHR Deans.

Since 2000, CTAHR has had three Deans (who served 6.3 years on average) and three Interim Deans in between each appointment.

2000 to 2010: Andrew Hashimoto

July 2010 to July 2012: Sylvia Yuen (Interim)

2012 to 2016: Maria Gallo

July 2016 to Sept 2017: Rachel Novotny (Interim)

2017 to 2022: Nicholas Comerford July 2022-present: Anna Wieczorek

• Lack of trust between faculty/staff and administration.

Response: Since August 2023, Interim Dean and Associate Deans (iDADs) initiated monthly meetings with the department chairs, county administrators, and CTAHR Senate executive committee to discuss college-wide issues and seek feedback. In addition, monthly round-table discussions with the entire faculty and staff have been implemented to permit college-wide discussions. Faculty and staff are encouraged to submit topics and questions ahead of the meetings to facilitate discussion.

- UHM budget model is perceived as unfair and/or exclusionary to some units. *Response*: The UHM budget is overseen and disbursed by the UHM Provost.
- Rotating chair model can limit visionary thinking, bold initiatives, and fundraising efforts and may also encourage favoritism.

Response: CTAHR administration agrees that the existing rotating chair model is not ideal; however, this is a university system policy.

• Consistent, regular training is needed for chairs and for succession planning for future chairs and other leadership positions.

Response: UHM has initiated annual training for all incoming and current department chairs. In addition, CTAHR administration will start internal training for department chairs in Fall 2023.

• Perception in some units that individual faculty are respected by the industry but CTAHR is not due to unfulfilled promises.

Response: Unfortunately, we cannot confirm or deny this perception. However, we plan to implement CTAHR's strategic positioning and visioning plan this calendar year. Additional details about this are in the bullet below.

• Combined departments are still struggling to find a common vision.

Response: CTAHR launched its strategic positioning process in Fall 2021 to map our future for the next five years. To initiate this effort, a group of 25 CTAHR members (14 faculty, three staff, four administrators, two students, and two outside stakeholders) was assembled to represent the CTAHR's departments and units and was charged with developing a strategic vision for the future positioning of CTAHR. The process was designed to generate a comprehensive, forward-looking, transformational vision of a future that would guide the college through the post-pandemic years while remaining relevant and effective in providing impactful services to the people we serve. This will build a more robust college with more resilient departments and units. Five Core Values were articulated through the strategic positioning process and developed based on CTAHR's Mission and Vision.

Facilities

- Lack of funds for upkeep of facilities has created a huge backlog of deferred maintenance and rendered many facilities, particularly outside Mānoa in disrepair and a safety risk.

 *Response: Along with many of our stakeholders and UHM administration, CTAHR recognizes that we need strategic investments in our agricultural research infrastructure to avoid being caught in a downward spiral that will continually diminish our ability to respond to the research and education needs of our communities. To build greater awareness of the research infrastructure needs across the CTAHR network of research stations, CTAHR has been actively engaged with University of Hawai'i (UH) System offices. We have also worked at the state and national levels to build awareness of our plight.
 - At the state level, we have prepared a priority list of Renewal Improvement and Modernization (RIM) projects in response to an effort by the UH System to garner funds for strategic investments in aging infrastructure and modernizing research facilities.
 - At the national level, we have worked closely with the Association of Public and Land-Grant Universities and our Land-grant University partners to advocate for "Strategic Federal Investment in Extramural Agricultural Research Facilities Across America".

CTAHR administrators are hopeful that state and national efforts will result in critical investments needed to maintain and repair/replace our research infrastructure. At the same time, we are aware of the consequences that may result if our research stations are not addressed with urgency.

CTAHR office, classrooms, and lab spaces are housed in inappropriate facilities as some of the buildings are 45 years or older and need modernization to perform molecular, and biology research studies. These buildings are:

- Miller Hall 1939
- St. John Laboratory 1969
- Agricultural Engineering Building 1975
- Gilmore Hall 1977
- Need assistance from central campus for upkeep of all CTAHR facilities.

Response: CTAHR administration has initiated monthly meetings with the UH Vice President for Administration (VPA), Jan Gouveia, and her team to address CTAHR off-campus facilities. As a result of these meetings, we are already working on renovations at the Komohana Agricultural Research and Extension Center in Hilo, Hawai'i. In addition, the State Legislature has recently provided funds to UH/VPA for addressing needed renovations, improvements, and deferred maintenance at the CTAHR Waiākea Research Station.

• Unable to effectively manage research and teaching farm and greenhouse spaces due to loss of staff.

Response: Since March 2020, there have been 62 resignations or retirements resulting in a loss of approximately 28% of the currently allocated 225 permanent faculty and staff (1.0 FTE). The majority of the resignations and retirements were from our agricultural technician workforce, who are responsible for maintaining research and teaching sites across the Hawaiian Islands. The inadequate staffing issue has many effects, including deferred CTAHR facilities maintenance. CTAHR administration is actively working to remedy this issue by:

- converting agricultural technician positions from a State of Hawai'i Civil Service position to a UH administrative, professional, and technical position; and,
- committing Smith-Lever funds to fill current agricultural technician vacancies as temporary positions to convert these temporary positions to permanent ones after the hiring freeze has been lifted. Since the pandemic's start, CTAHR has hired 10 faculty and staff positions using Smith-Lever funds to ease the burden of our current vacancies.
- Researchers are charged bench and location fees to provide funds for upkeep of research facilities
 but inadequate staffing results in delays in repair if maintenance issues are addressed at all.

 Response: These bench charges are minimum and permit us to at least conduct minor upkeep.
 This is not sufficient to fully modernize the Magoon facility. Modernizing this facility is a
 CTAHR top-priority.

Additional Resources Needed for Action:

CTAHR received two reports in 2019-2020 by an architectural firm assessing the cost estimates for modernization of Magoon and Pope Greenhouses at \$12M and \$4M, respectively. To rebuild these greenhouses, CTAHR will need approximately \$16M.

CTAHR or University-Level Action: Both

Staffing/Administrative Support

- Cumbersome administrative processes combined with inadequate staffing leads to significant delays in processing requests, inability to spend grant funds, and delays in paychecks for the most vulnerable employees (e.g., temporary staff, graduate students).
 Response: The CTAHR Office of Administrative Services, which provides fiscal and human resources support to the college, recently received approval to recruit one permanent and five temporary positions to help address the inadequate staffing at the college administrative level. It is important to note that the staff shortage is also present at other UHM colleges and the UH system, which also has a lingering effect on the university systemwide and that we must recognize that all administrative processes must adhere to state and UH system regulations.
- Bottlenecks exist in fiscal services and in identifying approved vendors; the \$2500 limit on P-card purchases create an unnecessary administrative burden at all levels for large purchases. Response: The CTAHR Office of Administrative Services Team has been working diligently to address the impact of delays in fiscal processing and grant funding expenditures. Since June 2022, the CTAHR Office of Administrative Services Team has been scheduling monthly meetings with CTAHR departments and support staff to address any fiscal or administrative issues to have an open and transparent dialogue regarding fiscal and human resources policies, changes, or inputs for increased efficiency. Furthermore, we have hired additional HR fiscal staff to assist with increasing transactions and will create a shared services group among the CTAHR Office of Administrative Services team. The goal of hiring these additional temporary fiscal and HR APTs is to facilitate processing departments fiscal and HR transactions.

CTAHR's Office of Administrative Services has submitted requests to increase the \$2,500 procurement card limit; however, the UH Central Office has responded that they stand firm at the \$2,500 limit to ensure transactions comply with the State of Hawai'i Revised Statutes 103D-310(c).

Communications, Marketing and Branding

 Websites across CTAHR and units are difficult to navigate, don't communicate well to external audiences and lack consistency.

Response: In the Spring of 2023, CTAHR started the preliminary process of redesigning our website. In December, our website committee was formed, and a survey was sent out to the CTAHR community to assess the specific needs and issues. Additionally, the university is in the process of adopting a new Content Management System (CMS) at the university system level, which will impact CTAHR's website design and implementation. The target date for completing CTAHR's website redesign is Fall 2023.

Response: Please see the above responses regarding regular meetings.

Faculty Success

• Lack of leadership at the college level to bring together collaborative teams together around new initiatives, no central support for faculty effort toward large transdisciplinary grants.

Response: Internal Research Funds – Prior to the pandemic, CTAHR Research distributed a call for Team Science applications to access limited internal funds before the pandemic. Of the 28 team proposals, CTAHR could fund seven (~\$350K total). The response to the Team Science call was encouraging, demonstrating a keen interest among the faculty in collaborating on transdisciplinary research. The pandemic required cutting back the Team Science awards in subsequent years so that CTAHR could focus limited internal funds on meeting the unexpected challenges of supporting graduate students and meeting bridging needs for research programs. Requests for proposals focused on individual investigators and specific teams needing targeted funding to grow and keep a competitive and beneficial program active. Importantly, funding was focused on supporting specific faculty needs to sustain research capacity, not to fund complete projects. Coming out of the pandemic, we plan to renew our focus on facilitating greater Team Science collaboration.

In addition, CTAHR Extension has been supporting faculty by 1) encouraging Extension State Teams to submit proposals, where Smith-Lever funds will support their efforts, 2) CTAHR Extension provides funding for faculty to attend the Western Extension Leadership Development (WELD) Program.

- Lack of formal faculty mentoring program.
 - *Response*: An internal CTAHR leadership group was started prior to the pandemic to mentor new faculty, and there are plans to restart this program in Fall 2023.
- Breadth without depth in faculty expertise leaves programs and units vulnerable and puts pressure on existing faculty to cover gaps.
 - *Response*: The unprecedented pandemic and hiring freeze have resulted in many vacancies among CTAHR faculty.
- Lack of resources to support and encourage innovative pedagogy, universal course design, distance education, curriculum enhancement; perception that teaching isn't rewarded *Response*: UHM has several workshops addressing these issues. Furthermore, CTAHR administration has implemented a funding system for faculty taking sabbatical leaves, which can be used as discretionary funds.
- No consistent process for onboarding and support of new faculty without annual evaluations, faculty lack input on progress toward promotion and tenure.
 - *Response:* CTAHR Administration is looking to revamp and implement a regular and annual new employee orientation for all CTAHR faculty and staff.

Student Success

• Retention of undergraduate students: while first-year retention is consistent with overall UH-M rates, CTAHR retention of FTIC students to year 3 drops off significantly. Factors may include costs, low sense of belonging, opportunities at other institutions closer to home. Some graduate students perceive an issue with retention of graduate students although data were unavailable.

Response: We do recognize that our student retention from the second to third year has dropped. This is a difficult issue to resolve as many students who complete (or are in the process of completing) their prerequisite courses find the courses to be science-heavy, and switch majors. UHM has several services to assist students registered in STEM courses. We have also implemented internal peer- tutoring for CTAHR students. The tutors are scholarship recipients who volunteer their time to tutor students.

As many of our students take classes in other colleges during their first two years, and few in their majors, they often begin to feel more strongly associated with other programs, such as biology. They often tend to switch to those majors. CTAHR administration will work with the faculty and department chairs to increase the 100- and 200-level courses offered in CTAHR majors.

- Timely graduation at all levels: FTIC, transfer students, graduate students.
 - O Availability of courses due to faculty vacancies, overload of existing faculty. Response: Unfortunately, the number of faculty in CTAHR decreased due to retirement and resignations during COVID by 15%. The majority of these positions remain vacant largely due to the imposed hiring freeze. CTAHR administration will be working with the UHM Provost to increase faculty numbers.
 - Course scheduling practices that don't account for student needs; core courses are offered simultaneously in the same program.
 Response: In Spring 2022, CTAHR administration started working with the department chairs and CTAHR academic advisors to address course scheduling conflicts.
 - Inadequate or inaccessible advising personnel at the departmental level. *Response*: The advising at the department level is handled by faculty. There are often shortages in faculty available to do this now, owing to the loss of positions mentioned above.
 - Confusion and inconsistencies in transfer credit acceptance. CTAHR and the CTAHR Academic and Student Affairs Office (ASAO) cannot determine transfer equivalents. Students considering transferring into the university are advised to work with UH System offices, which include the Mānoa Advising Center, Mānoa Transfer Coordination Center, and UH Community College counselors. In addition, the UH System has a public course transfer equivalency site that contains a searchable library of previously evaluated courses for reference which students may find helpful when planning to transfer to UHM and/or CTAHR.
 - Lack of specific transfer admission requirements that position students for success.
 Response: See above regarding credit acceptance.
- Lack of a regular curriculum review/revision process that would
 - ensure curriculum is addressing current needs, both of students and future opportunities;
 for example, students are seeking more courses in agribusiness management and
 entrepreneurship
 - o minimize redundancy and ensure prerequisite knowledge is aligned with expectations
 - o enable timely graduation

- identify gaps that can be filled either by priority new hires or through collaboration with other units within CTAHR or across campus
 Response: Academic programs and course curricula are established by the faculty.
 CTAHR administration recognizes that some of the curricula have not been revised for some time; we will work with department chairs and curriculum committees to address this issue.
- Inadequate resources for developmental advising of undergraduate students. CTAHR advisors are overloaded and can't provide the depth of advising needed by upper-division students to understand program requirements and options, evaluate appropriate electives, and understand career opportunities and professional development needed; lower-division students especially do not feel well connected to their department or program. The National Academic Advising Association (NACADA) provides resources for colleges to determine appropriate levels of staffing for academic advising depending on student profiles and roles and responsibilities of advisors.

Response: Academic and professional advising is a shared responsibility at CTAHR:

- CTAHR ASAO Academic Advisors works with <u>undergraduate</u> students to provide a
 relevant student-centered learning environment that promotes the student's educational,
 career, and professional development.
- CTAHR Department Chairs and Graduate Chairs serve as the liaison between UHM Graduate Division and CTAHR graduate programs and work with graduate students.

Again, the unprecedented pandemic and hiring freeze has resulted in many vacancies in CTAHR, including ASAO. During this time, the CTAHR Academic Advisors were reduced from three advisors to two advisors for one year. The reduction in staffing led to limited appointments for undergraduate academic advising. To alleviate this, advisors regularly invited and directed students to express advising hours to discuss academic concerns, registration issues, and course projections. In addition, we have hired a third advisor, who started during Fall 2022.

CTAHR Academic Advisors work to consistently provide timely graduation plans for students through their STAR Guided Pathway System (GPS). Oftentimes, difficulties arise when students may fail to pass certain prerequisite courses to move forward with their degree plan, and many courses are only offered once a year. When this occurs, CTAHR Academic Advisors work with department faculty to identify possible course substitutions when a required core class is canceled or not offered for a term that would regularly be scheduled to facilitate on-time graduation for impacted students.

UHM has an array of resources for students who need additional support or want to learn more about career counseling, career preparation, and entrepreneurship. In 2021, ASAO and academic advisors started sharing these resources with students who expressed their needs via individual appointments, our weekly newsletter, and emails.

• Inadequate support resources for graduate programs impacts their ability to respond effectively to prospective student inquiries, assist in onboarding and connecting students, maintain effective

and complete information in handbooks and websites, and assist in development and delivery of professional development.

Response: This, again, is due to the shortage of faculty and staff. To help with some of these issues, CTAHR administration has provided larger upkeep budgets for each unit. This allows the departments to make investments they see as priorities.

- Loss of the CTAHR Student Research Symposium limits opportunities for students to gain experience in professional presentations and limits opportunity for networking, collision conversations and potential future collaborations.
 - Response: CTAHR Administration is modernizing the former CTAHR Student Research Symposium, which had been implemented for 26 years at CTAHR. The new CTAHR Student Showcase (CSS), which will debut in March 2023, will highlight the research conducted by CTAHR undergraduate and graduate students under the guidance of CTAHR faculty and staff. CSS celebrates the extremely diverse work done within CTAHR by allowing each program to present important projects in their field. It encourages professional development by soliciting feedback from attendees of all different backgrounds through an online evaluation form. The evaluation forms directly connect to departmental Student Learning Outcomes (SLO) and Institutional Learning Objectives (ILO) so that faculty and the college can assess performance in collaboration with the Assessment and Curriculum Support Center. Before the CSS event, students are invited to attend a week of presentation workshops that guide how to prepare an oral or poster presentation and confidently deliver their presentation in a way that is engaging for both a field-specific and general audience. The lunch after the CSS provides time for networking between students, faculty, and staff across fields so that collision conversations can take place, leading to future interdisciplinary projects for which CTAHR is well-known.
- While many students were positive about their experience in the college, others expressed concern about a department/program climate that wasn't inclusive and supportive of differences Response: We recognize this issue, and at the administrative level, we are increasing the number of college-wide programming opportunities to expand student inclusivity. In 2018-19, we started a college-wide student lounge in Gilmore Hall, which provides students with a place to gather, work, and interact. The student lounge provides free food and snacks for students and has a microwave, toaster, and refrigerator for student use.

Threats

Items the College cannot impact directly but must consider (along with upper administration) in planning

- Direct pressure from legislators
- Competing programs in agriculture at other institutions
- Lack of alignment of curricula by community colleges so credits will transfer seamlessly
- Budget constraints throughout the system
- Unionization of faculty reduces flexibility and bolsters resistance to change
- Availability of qualified applicants for staff positions
- Continuing issues with definition of "small programs"

Items that the College could and should address

- Morale is not high among faculty, staff, and students.
 - Lost sense of community; gaps in faculty and staff support limit opportunities to do simple things to build community
 - Lack of stability in leadership
 - Insufficient communication at all levels (senior leadership, CTAHR, department chairs) perceived as a lack of interest in involving departments in College decisions and ultimately affects trust
 - Lingering tensions due to departmental mergers have negative impact on students and their success in programs; will damage ability to recruit

• Faculty and staff

- Deficit of faculty and staff in most departments
- Teaching workloads perceived as inconsistent with emphasis on maintaining high research productivity
- Increased faculty participation in University governance is needed to raise the profile of CTAHR and reduce the feeling of "otherness" in the system
 Response: To address the threats of low morale among faculty, staff, and students,
 CTAHR administrators plan to implement the strategic and visioning plan this calendar year.

Facilities

- Facilities that have so much deferred maintenance they are no longer functional or safe
- Poor relationships with Facilities Management *Response*: This was addressed in the "Facilities" section above.

• Graduate students

- Graduate programs lack support staff to assist Graduate Chair in managing applications, student communications, orientation, policies, and procedures
 Response: The lack of support staff was addressed above. CTAHR administration will work with department and graduate program chairs to encourage them to establish new student orientation and written policies and procedures for each program.
- The feeling of "nowhere to go" when issues arise affecting progress to graduation Response: CTAHR administration recognizes this issue and will work with the graduate programs to resolve this problem.
- o Graduate student stipends should be consistent with the cost of living in Honolulu to reduce stress induced by second jobs, private loans, etc.

 *Response: According to a study by the Missouri Economic Research and Information Center in 2019, Hawai'i has the highest cost of living nationwide, with an index of 191.8. The national average index was set at 100. Unfortunately, the high cost of living affects everyone at CTAHR, including faculty, staff, and all students. In almost every industry, Hawai'i workers make less than their mainland counterparts, which adds to the high cost of living for Hawai'i residents.

Graduate Assistants (GAs) with a 0.50 FTE appointment receive a stipend based on the UHM compensation schedule, a full tuition waiver, health benefits, and sick leave. A pay increase for UHM GAs went into effect on August 1, 2022. Additional increases for UHM GAs are scheduled for August 2023 and August 2024. In addition to the pay increases, UHM has implemented a new sick leave policy (effective Fall 2022) for all graduate students at the University of Hawai'i campuses.

• Lack of a graduate program in FCS

Response: As of January 2023, CTAHR is actively working to request approval for the Authorization to Plan for the graduate degree in Marriage and Family Therapy (MFT) within the Family and Consumer Sciences department.

• Undergraduate students

 Outdated curricula in some programs; no regularly scheduled curriculum reviews and/or individual departmental reviews

Response: This was addressed in the "Lack of a regular curriculum review" above.

- Threat of reducing UG enrollment when/if new GenEd requirements are instituted Response: CTAHR administration recognizes that this is a potential problem. These issues must be addressed at the UHM level as they impact all undergraduate programs. If we develop several lower-level introductory classes in CTAHR, it may help recruit and retain students.
- The stated goal of redesigning GenEd requirements is to apply them to all system campuses. This may discourage students from transferring early enough to meet departmental graduation requirements but should reduce the problem of transfer credit assignment.

Response: This is a system-wide matter. To improve transfer rates, we have implemented mandatory advising for each semester; this improves the student's understanding of the requirements and what actions they need to take.

- Failure to ensure availability of required courses results in longer time to graduation. *Response*: Addressed above.
- Poor advising of transfer students; inconsistent transfer credit assignment *Response*: This was addressed in the "Student Success" section above.
- O Student placement is not tracked, leading to lack of alumni engagement possibilities Response: CTAHR has employed an alumni specialist to improve this situation. Since 2019, a monthly alumni newsletter has been distributed to 10,000+ CTAHR alumni. This newsletter aims to inform alumni about CTAHR news and events, connect or reconnect with alumni, and highlight individual CTAHR alumni in the community. Also, a CTAHR Alumni survey was conducted in 2021 with over 400 responses to gather data on our current alumni.

The CTAHR Alumni Association & Friends Board has also been re-formed and began holding monthly meetings. The Alumni Association board members encourage CTAHR graduates to maintain contact with the college via CTAHR Convocations and community events.

Opportunities

The overarching opportunity is to bring the CTAHR Strategic Plan and vision to life. Faculty in CTAHR see their work in the strategic plan and feel they were part of the plan development process. CTAHR should celebrate this as a success. But the work doesn't stop there – much work remains. What follows is a summary of opportunities and ideas, aligned with the operational goals of the strategic plan and the grand challenges identified therein. Key high-level recommendations include:

- We encourage CTAHR to assemble a broad team to pull together updated departmental plans and to advance the plan and vision using a growth mindset approach
 - o Imagine if...., What would it look like if..., We learned from the pandemic that....
- Add 'Employee Success, Support and Retention' as an operational goal
 Response: CTAHR administrators plan to implement this calendar year's strategic and visioning
 plan.

Operational Goals

- Develop a brand then communicate and market it effectively.
 - Showcase the incredible costume collection to the community
 - Improve the quality of the college webpage to be more uniform, easier to navigate, and to provide the types of information potential students seek such as curriculum and what you can do with the major
 - Consider a name change for the college to better reflect the programmatic elements.
 Consider the HR in CTAHR (Human Resources vs Health, Resiliency or Human Resilience)

Response: CTAHR administrators plan to implement this calendar year's strategic and visioning plan.

- Improve internal communications for students, faculty and staff, and improve external access to information for stakeholders and the general public.
 - o Improve communication within the college by ensuring information from the Provost's and Dean's offices is shared with all faculty
 - O Demonstrate transparency between administration and faculty/staff, especially with regards to budget. Could also invite CBO to do Budget 101 presentation to college to explain how university budgeting works and follow up with the college budgeting process
 - Hold college meetings more than once a year even if some are by Zoom
 - o Form a committee of faculty and staff to solve issues within the college
 - Form a student advisory committee comprised of undergraduate and graduate students and representative of all programs, and entry points (FTIC, transfer, master's, PhD); consider implementing an exit survey for graduating students

O Communicate regularly about responses to feedback so that responsiveness is apparent (otherwise not transparent)

Response: The communication issue with faculty and staff has been addressed above. Regarding communication with students, we have implemented a weekly newsletter that summarizes important events, opportunities, and deadlines for students. We also have a monthly bulletin that is sent to students that lists internship and work opportunities. During Spring 2023, we will also implement a texting system to communicate students' most important deadlines and information. We are working with UHM to ensure it is synchronized with system messages.

• Strengthen collaboration, build partnerships and generate opportunities for revenue and resource diversification.

Response: CTAHR administrators plan to implement this calendar year's strategic and visioning plan.

• Expand distance delivery of teaching and extension programs to increase those served and provide additional revenue (note: faculty expressed little enthusiasm for distance education without additional support resources, motivation, and incentives)

Response: CTAHR administration recognizes the importance of distance delivery. We have encouraged our faculty to work with our specialists to develop online programs. There is a high demand for her time, and additional resources will be needed to expand distance delivery.

• Re-energize and build opportunities to connect with alumni

Response: Please refer to the "alumni engagement opportunity" section.

In addition, our college has many opportunities to interact with alumni. These events include CTAHR Student & Alumni Mixers, Lei Making Classes, Gardening Workshops, CTAHR Alumni BBQ, and our monthly CareerLaunch event for workforce development and recruitment by alumni. In the Fall of 2022, CTAHR also hosted its first Golf Tournament in conjunction with UH Foundation.

- Consider forming external advisory boards for individual departments and for the college Response: Departmental advisory boards will need to be developed by departments. CTAHR has an active advisory committee that includes stakeholders and community partners. This advisory committee meets at least twice annually. In the recent past, the CTAHR advisory committee was involved in strategic positioning; during the Fall 2022 meeting, we reviewed the outcome and obtained feedback on the process.
- Employee success, support, and retention
 - Conduct an annual climate survey with faculty, staff, students share results broadly and monitor progress

Response: Thank you for this suggestion. We will run our first annual climate survey during Fall 2023.

Establish a new faculty orientation for the college
 Response: Pre-pandemic, the CTAHR administration ran a new faculty orientation
 session. We will develop a new orientation program in Fall 2023.

Include a faculty mentoring program

Response: We will do so starting in Fall 2023.

Revive leadership training program for faculty

Response: We will do so starting in Fall 2023.

• Provide training for chairs in administrative processes

Response: This item was addressed above under "Leadership".

• Establish a process for nominating faculty for local and national awards *Response*: We already established this for national awards in teaching. We will establish the process for research and extension starting in Fall 2023.

Move vacant HR and fiscal positions into shared services but housed in departments
 Response: This approval process requires departmental approval before
 implementation. We have thus not been able to move all these functions to
 departments.

To build a CTAHR shared services unit by utilizing vacant positions, CTAHR Administration has requested approval from the Provost to create two temporary shared services positions. From there, we can assess and see how well the unit does in helping to fulfill the support staffing needs of the college. These requests are still routing for approval from the upper UH administration.

o Implement a shared services approach to administrative management to improve consistency, ensure adequate training, provide back-up support *Response*: In Spring 2022, the previous CTAHR Dean initiated a shared service approach. We will continue with this practice. As mentioned above, two temporary fiscal/HR APTs will be hired once we receive UHM approval.

o Thaw the hiring freeze

Response: The UH System President implemented the hiring freeze during the Covid-19 pandemic. We are looking forward to this freeze being lifted.

Grand Challenge Initiatives

Tremendous opportunity exists within CTAHR to leverage state priorities, state budget surplus, and common interests among UH and external entities to partner for advancement of the grand challenge initiatives. Ideas and recommendations to advance the initiatives are offered below, collectively across the grand challenge topics. Additional recommendations are provided that focus on CTAHR's opportunities in workforce development through its own students and lifelong learners.

- CTAHR can lead building a sustainable, self-sufficient Hawai'i with OneHealth as a foundation *Response*: CTAHR is a partner in the newly created One Health Interdisciplinary Undergraduate Certificate Program, which is based on a curriculum consisting of 15 credits of One Health-related coursework offered across several UHM colleges and schools.
- Showcase the relationship between CTAHR and the President's priorities for sustainability and serving the needs of Hawaiians

Response: Thank you for this suggestion; we will work on this.

• Expand existing CTAHR programs and connections through transdisciplinary investments in people and programs

Response: We already have a few interdisciplinary programs and will continue to expand this.

- Capitalize on interest in connecting more broadly and deeply across UH
 Response: Some projects at CTAHR already work across the UH system. We will work on increasing these.
- Incentivize cross-disciplinary collaboration through seed grant funds
 Response: On an annual basis, CTAHR dedicates internal funds to competitive proposals for
 cross-disciplinary collaboration; funding may cover GA salaries, equipment, and other
 operational costs.
- Leverage the relationships and impact of Extension to increase visibility and reputation of UH and CTAHR.

Response: Continue to focus on the Extension program impact in meaningful communications and to report to stakeholders, elected officials, UH internal audiences, and federal reporting channels.

• While oversight of Extension is best managed through a single college, expand the Extension footprint through new hires with split appointments across colleges *Response*: We are also working on collaborative efforts with the county government to share the cost of Extension agent positions with the county government. For example Hawai'i County Government proposed to share a livestock agent and an indigenous crops agent. The indigenous crops agent would be a natural fit to work closely with the Kamakakūokalani Center for Hawaiian Studies.

- CTAHR could be the connector between other UH units and students across Hawai'i *Response*: As opportunities arise, CTAHR programs such as 4-H or Master Gardeners who do work with students try to collaborate with a variety of organizations and other UH units.
- Expand opportunities for students to meet GenEd requirements through CTAHR courses *Response*: Addressed above.

• A consistent, robust CTAHR presence in the first-year program could bring in undergraduate students earlier

Response: Addressed above.

• Embed design thinking in biological systems into curricula earlier to allow students to be better prepared for capstone experiences

Response: As mentioned above, curricula are determined by faculty.

• Expand writing intensive courses within the CTAHR curriculum

Response: Each academic program already has writing-intensive courses. We will encourage each program to increase this number as needed.

• Meet ethics requirements through CTAHR courses

Response: Some academic programs already have ethics courses. We will encourage increasing this number as needed.

 Huge opportunity for major curriculum review and assessment of delivery methods across CTAHR to position coursework for the future.

Response: Addressed above.

• Capitalize on ability to use funds to hire I2s to teach introductory courses with high caps in both semesters

Response: Programs that teach large undergraduate courses, like Human Development and Family Studies and Natural Resources and Environmental Management, already have I2 faculty. If budget conditions permit, more can be hired.

• Invest broadly in systems and people to address student development and placement.

Response: CTAHR administrators plan to implement this calendar year's strategic and visioning plan.

• Internships and jobs

Response: CTAHR ASAO connects students with the CTAHR community and stakeholders to create a successful employment path. The CTAHR Internship Program was created as employers continue to seek labor due to the state's high unemployment (10.3% in December 2020, 5.7% in December 2021) and CTAHR's response to students' demands for more career-related opportunities to prepare students for the workforce after graduation.

• NREM graduate program cohort model is a good example of developing supportive culture for students

Response: Thank you, we will encourage other departments to consider their model.

• Develop non-thesis master's programs in several departments to serve workforce development needs, particularly if offered via distance delivery

Response: We will suggest this to the relevant programs.

• Investigate opportunities for combined BS/MS programs *Response*: We started this discussion before the Covid-19 pandemic and will resume shortly.

• Develop articulation agreements with two-year colleges to increase pipeline of students into the college.

Response: We started this discussion before the Covid-19 pandemic and will resume shortly.

• Address experiential learning needs, including hands-on learning labs (animal) *Response*: We will certainly do this if funds and personnel are available.

- Through facility investments at other locations, and bolstering resources for instructional design and faculty support, offer remote degree opportunities in select tracts that further increases enrollment and keeps students in Hawai'i post-degree (Workforce Development initiative) *Response*: This has been addressed above.
- Need UH investments in county facilities (research centers), building remote majors, instructors *Response*: This has been addressed above.

• Place-based infusion of Hawaiian culture; native plants; natural resources

Response: CTAHR's statewide extension sites are very active in providing Hawai'i-place-based culture learning of native plants and natural resources. Specifically, CTAHR O'ahu County is working with internal and external stakeholders to:

- 1) Strengthen the community's knowledge of tropical and Pacific island agriculture by soliciting extramural grants to support new science-based discoveries and recruit for positions.
- 2) Increasing food security by connecting local farmers with nearby school systems to heighten Farm to School access.
- 3) Develop learning centers across Hawai'i so communities can access the place-based curriculum to advance sustainability and holistic health
- 4) Support youth development by expanding life skills and leadership training to include business management with programs such as the Keiki Open Market.
- 5) GoFarm Hawai'i, an extension program, works to develop more food and industry workers in agriculture.
- 6) From the landscape and ornamental industry perspective, we support local and export markets for florals which supports the local economy and supports the green industry in Hawai'i and beyond.

• Potential onsite experiential learning and exposure to research

Response: CTAHR already has a number of these opportunities. We will increase these as funds and personnel permit.

• Need investment in professional advisors specifically for remote majors, but also for campus programs; consider a comprehensive advising assessment to determine appropriate staffing ratio

Response: CTAHR already has three professional academic advisors who serve students; see above. We recognize that the student-to-advisor ratio is high, but we currently have inadequate funds and position numbers to address this.

• Opportunities for lifelong learning partnerships with online program and Extension *Response*: CTAHR has supported the development of online Extension Programming such as GoFarm Hawai'i and the Master Gardener program. Current development efforts are geared toward online extension resource websites like the Hawai'i Nutrition Center (a partnership with Hawai'i Foods, EFNEP, SNAP-Ed, and Building Healthy Communities) and Open Educational Resources textbooks and instructor support websites.

CTAHR - Departments Responses to Academic Program Review Report (October 2022)

College of Tropical Agriculture and Human Resources External Report Family and Consumer Sciences October 2022

Strengths

- Faculty who are committed to the land grant mission of the university and to student success
- Strong presence within the community through internships, extension, research, and other forms of outreach
- HDFS undergraduate enrollment is one of the highest within the college
- Research output is impressive given the amount of FTE designated for research Students report feeling connected to their faculty and their department, and feel supported by their faculty in reaching their career goals
- The yearly fashion show is great publicity for the department and the college and a good opportunity to showcase student work

Response: Agreed

Weaknesses

- No graduate program which could help alleviate some of the issues related to lack of support for large class sessions as well as help support an increase in research productivity *Response*: Agreed. The department chair and HDFS instructional committee submitted an Authorization to Plan (ATP) request to establish a Masters in Marriage & Family Therapy (MFT) program to the Dean on Jan 23, 2023 and are awaiting response back.
- Space is a big issue for multiple areas
 - o faculty are spread out across the campus- can result in faculty feeling disconnected from their disciplinary peers and eventually their department
 - the current building for some of them is not ADA compliant and there is no men's restroom
 - the space for cutting patterns is not big enough for students to work and the WIFI is not good; classroom spaces are also small for FDM

Response: Agreed. There is currently no men's restroom, and after 20 years, it has been resolved and rectified as of February 16, 2023. Miller Hall which is where majority of HDFS & FDM faculty, as well as the chair and department staff are located will be undergoing renovation for new windows and AC starting in mid-May 2023. This will present a major disruption, and it remains uncertain whether there will be adjustment for additional space, or whether faculty will remain disconnected physically.

- FDM curriculum is challenging- too many niche classes, too many course releases are given, and concern was expressed by students that they are not adequately prepared for today's workforce (i.e., digital pattern software)
 - *Response*: FDM Curriculum Committee is currently working diligently to address this identified weakness including the possibility of eliminating the design track so as to be more focused, strategic, and streamlined. With only one I2 faculty teaching all the design courses, a strategic

readjustment is needed. FDM faculty are in discussion to ensure the courses are preparing students for local relevance and opportunities.

• Lack of integration of the various units within the department- are operating in silos *Response*: The new, current FCS Chair is currently working diligently to address this identified weakness. This include convening a department retreat that occurred in Jan 2023, and establishing regular departmental check-in meetings. For instance, in February 2023, FCS faculty have already met twice. FCS faculty are also working collaboratively to engage in a social marketing campaign to increase recruitment.

Threats

• Faculty feel as if upper administration doesn't understand their relevance which is contributing to their being underfunded

Response: Historically, this has been a common sentiment as the HR component of CTAHR has been forgotten, or confused. At our most recent FCS faculty retreat, we discussed whether HR could be termed "Human Resiliency" rather than "Human Resources," to better reflect what FCS does along with other departments. Human Resiliency is also what the external reviewers suggested/recommended.

• Students are leaving to attend private schools because of the lack of a Marriage and Family Therapy program

Response: Agreed. At least a third of the HDFS students are interested in and pursue graduate studies in counseling including MFT. They go to Chaminade or online MFT degree programs offered on the mainland. The department chair and HDFS instructional committee submitted an Authorization to Plan (ATP) request to establish a Masters in Marriage & Family Therapy (MFT) program to the Dean on Jan 23, 2023 and are awaiting response back.

- Faculty experience overloads and many classes are taught by part-time instructional faculty due to lack of sufficient faculty lines which leads to low morale and inadequate instructional ratios *Response*: Agreed. FCS is working on putting forth instructional positions for priority hire if and when positions become available.
- Center on the Family is exploring leaving the department which would impact the funding of the department because of lost revenue from grant dividends as well as impact instruction within the department

Response: Agreed. FCS is concern that COF's departure will impact the operating budget for the department as the current budget formula to the department is based on 1/3rd number of faculty, and 1/3rd being indirect returns. COF also provides .60 FTE instruction which would be diminished with their departure.

• Faculty in HDFS are divided on whether or not going to another college would better suit their needs

Response: Due to lack of a graduate program, some HDFS faculty felt that moving over to CSS

would facilitate easier access to graduate students. Securing a graduate program in FCS would greatly diminish this threat, and the first step is support from administration to plan a Marriage & Family Therapy Master's program.

Opportunities

• Development of interdisciplinary degrees *Response*: No comment

- If you cannot get a graduate degree in MFT, explore an area such as Prevention Science that would support the college's strategic positioning and vision and meet the needs of Hawaiians *Response*: HDFS is in the process of submitting an Authorization to Plan for a MFT program. A MFT program would be a huge benefit to the department, CTAHR, UHM, and Hawai'i community in terms of workforce development in being a critical part of the solution to address the current mental health crisis.
- More interconnection across units within the department could increase the visibility of all areas and help external audiences better understand their value to the college and the campus Response: Agreed, HDFS & CTAHR should move toward transdisciplinary sciences. In fact, FCS department chair is currently leading the effort with colleagues across CTAHR departments to establish a One CTAHR transdisciplinary course whereby students across departments will be learning together, and working experientially together in teams.
- Encourage the growth of the HDFS student club which is inactive at this time to increase student attachment to the college *Response*: Agreed. HDFS faculty is currently combining Friends of the Family and Phi U club, and working to identify incentives for participation and engagement.
- Build better connections between the merchandizing students and the design students to increase the success of the fashion show program *Response*: FDM is currently revamping the curriculum to be more streamlined and focused, with the possibility of eliminating the design track. With only one I2 faculty teaching all the design courses, a strategic readjustment is needed.
- Find opportunities to showcase the incredible costume collection held on campus. *Response*: Agreed. Agreed. Chair is in the process of assigning a new curator to take over which will address this issue.
- Increase integration between extension and the other units in FCS which would increase the
 success of each area
 Response: Agreed. FCS instructional faculty and extension faculty are currently working
 collaboratively on developing strategic priority positions that would include both I and E time, as
 well as grant proposals.

- HDFS students would like the ability to choose their own internship sites so they can have experience that better aligns with their future career goals

 *Response: HDFS students currently DO choose their own internship sites.
- Explore the pipeline of students in high school and community colleges for potential students and see if you can align your programs in ways that meet the needs of those students *Response*: There have been previous attempts of FDM, and most recently, a MOU was developed between FT at Honolulu Community College and FDM at CTAHR; FDM submitted it to the Dean's office, and have not received a response back.

HDFS is in the process of connecting with various High Schools and community colleges, and the Kumuola Project with Windward Community College is attempting to facilitate easy transition of Native Hawaiian students to HDFS/CTAHR/UHM.

College of Tropical Agriculture and Human Resources External Report Human Nutrition, Food, and Animal Sciences October 2022

Strengths

• Faculty committed to student success while balancing growing research success and community engagement

Response: None

• Students that feel a part of something bigger than themselves and feel welcome

Response: None

Performance metrics are improving, including vet school placement

Response: None

• Dietetics program enrollment is expanding

Response: Academy of Nutrition and Dietetics (AND) just informed us that our UHM Dietetics program is awarded another 7-year term continued full accreditation.

• Good lab space and classroom space

Response: I am not sure if we deserve this comment as our strength. We are struggling with limited lab spaces in fact so that new faculty members are located at different buildings.

Weaknesses

• Lack of animal facilities to provide hands-on student experience

Response: Livestock animal facilities are managed or coordinated by the CTAHR county administration. It will need the college administrations (i.e. Dean, associate deans and facility director) to support setting up and maintenance of animal facilities. HNFAS faculty members have been working hard to bring this issue to the attention of former dean and interim dean, which has been well acknowledged, but there is not a plan of action to get the much needed simple and affordable animal facility done. HNFAS faculty from animal science background are interested in developing animal facilities on Oʻahu Island.

• Courses aren't offered that then delay graduation for students, or make graduation impossible for some students (military students) – this was an articulated concern from students in each program within HNFAS

Response: Some courses have not been offered due to the inability to replace/hire faculty who taught those courses (e.g., due to retirement or unexpected circumstances such as death). As temporary solutions, we have sought lecturers to teach the course in lieu of a faculty member. However, it is often difficult to find someone locally who has the expertise (generally a MS or PhD level individual) and is willing to accept a lecturer's salary. We are exploring a model to hire I2s to teach introductory courses to free up faculty time to teach other courses but that may be difficult to pursue with the hiring freeze in place.

• Students feel that some courses contain redundant, and even outdated, content making it difficult to justify the courses as requirements

Response: More regular program specific faculty meetings are being called to allow for regular review of curriculum maps.

Threats

 Curriculum needs a thorough review and updating to avoid risk of ill prepared students and declining enrollment

Response: Our undergraduate program showed an upward trajectory for student enrollments. We are more concerned about the declined faculty to student ratio because of faculty retirement and hire freeze in the past few years.

- Some graduate students feel overworked relative to compensation and peer workload, threatening reputation, and ability to attract future students
 - *Response*: Department Chair and Curriculum Chair have met teaching assistant (TA) students twice a semester and listened to their workloads and feedback. The Department Chair proposed TA's evaluations about the instructors while protecting their identities.
- Absence of placement data for graduating students resulting in uncertainty in outcomes/progress as improvements are made

Response: As undergraduate student advising responsibilities have moved from faculty to a centralized college advising office (several years ago), it is not as intuitive to faculty to keep track of graduation rates or placement of students as faculty no longer have inherent one-on-one interactions with all students. However, our faculty are aware of the benefits of tracking student placement and efforts have started to track student placement through students enrolled in final/senior courses (e.g. food science capstone). At the MS and PhD level, faculty generally keep track of placement for their advisees and more formal program-level tracking is in development across the ANSC and FSHN programs.

Opportunities

- Overhaul curriculum to consider how to address student desires of hybrid course delivery in a
 way that increases (remote) enrollment, improves course content relevancy without redundancy,
 and makes good use of faculty time while providing experiential learning opportunities
 - Not an easy task, but one that could have tremendous benefit to the program and its people
 - Leverage current experience of military family students to develop programs that offer an opportunity to such students anywhere
 - Consider how HNFAS courses could further contribute to gen ed requirements Aligned with the first recommendation, consider strategic investments in facilities (animal and otherwise) and partnerships with the private sector in order to offer students hands-on learning experiences

Response:

There is a selection of courses in our programs that are offered remotely. However, it is difficult to move to a completely remote program as our programs have a heavy science requirement which requires students to take courses outside of the department (e.g., Chemistry, Biology, Math).

FSHN 411 (Food Engineering) and 494 (Capstone) have frequent interactions with private sectors so that they have offered field trips to the manufacturing sites, student internship opportunities, and industrial mentorship programs. The ANSC/FSHN 492 (internship) course also allows students to engage with stakeholders/future employers to gain valuable on-site experience in animal science, human nutrition, and food science fields. Private sectors include local food industries, farmers, ranchers, government agencies (DOA, DOH, USDA, FDA etc.) and so on. FSHN 492 (Field Experience) is offered in a distance format to allow for the experiential learning to be the focus of the class.

Following general education recommendations, we meet a number of general education requirements within the curriculum. When it fits, we also have worked to offer classes that meet more than one general education requirement. FSHN 185 is an example of a class offered that meets more than one general education requirement (DB and HAP).

College of Tropical Agriculture and Human Resources External Report Molecular Biosciences and Bioengineering October 2022

Strengths

- Undergraduate and graduate programs have strong students who earn campus and external recognition and are successfully placed after graduation
 Response: Yes, the undergraduate and graduate programs in MBBE are doing well. The MBBE Graduate Program is generally recognized as a successful program.
- Undergraduate students find the variety of courses and flexibility of MBB curriculum appealing, also mentioned that faculty were supportive and assist in helping students find research experiences

Response: Yes, that is true

- MBBE graduate program draws faculty and students from outside the college
 Response: Yes, that is true. Many researchers from the Cancer Research Center participate in the
 MBBE Graduate Program as Co-operating Graduate Faculty. They accept students through
 MBBE and supervise them.
- MBBE courses (e.g. biochemistry) are taken by students across the campus *Response*: MBBE402/BIOL402 has high enrollment because students from across the campus take this course. Similarly, several other courses, such as MBBE401/BIOL401 Molecular Biotechnology, MBBE304/BIOL304 Biotechnology: Science and Ethical Issues, MBBE408/BIOL408 Molecular Cell Biology) are popular.
- Faculty have been successful in grantsmanship and external awards *Response*: Yes, that is true
- Chair involves faculty in developing ideas for using discretionary funds *Response*: Yes, discretionary funds are distributed based on ideas presented by faculty and explained in the monthly departmental meeting.
- Under CTAHR Grand Challenge Initiative #4 (Workforce and Economic Development), the MBBE faculty set a goal to "Maintain excellence in undergraduate and graduate programs and leadership in the field of Molecular Bioscience and Bioengineering whose students and graduates make recognized impacts" with six action steps (note: this was in a document provided by the department chair)

Response: Yes, maintaining excellence of our undergraduate and graduate programs is the main goal of the department.

Weaknesses

• There seems to be a disconnect or divide in the faculty, not necessarily along disciplinary lines, but in terms of alliance with and/or respect for the Department Chair; the graduate students also sense this divide in the faculty and lack of community *Response*: Yes, it is true that we have these problems. Unfortunately, the disgruntled faculty members were most vocal in the meeting with the external reviewers. Others who do not support their views did not speak much in the faculty's meeting with the reviewers.

• Faculty seem to be hardworking, but stretched thin *Response*: That is true.

• Loss of faculty positions was concerning *Response*: That is a general problem for the entire college.

• Quality of space is inconsistent across buildings *Response*: Yes, that is true.

 Processing contracts and grants through the Office of Research is slow and impacts ability to spend funding

Response: Yes, that is a problem.

• Funding for the MBBE graduate program from the Dean's office doesn't account for students who are mentored outside of CTAHR

Response: That is not true. Graduate programs are not expected to receive separate funds.

• No interest, at least from the chair, in distance education, stating, "during COVID this made students corrupt"

Response: Yes, it is true that I said so. We have a limited number of faculty with enough teaching responsibilities. Additional online programs might divert their time and energy from their main focus. During COVID, students got used to taking non-proctored online exams. Some students showed resentment towards taking proctored exams later.

Although students like the flexibility of the MBB degree, they also voiced concerns that planning
is difficult because there are so many electives, and didn't feel supported by CTAHR advisors in
that process

Response: This is the first time we heard about his problem. In the future, we will work with the CTAHR Advisors to help the students to find electives easily. We will also add two additional courses (MEDT 331 and MICR 463) to the list of elective courses.

Undergraduate students in BE were appreciative of their BE advisor (Ryan K) but voiced concern that at times the BE advisor and CTAHR advisors don't agree

Response: This item was discussed between Ryan Kurasaki, Irene Morrow, and Maile Sing on 12/8/22. The conclusion of the discussion was that this could potentially refer to scheduling classes within each semester of the graduation plan. The current practice in

academic advising involves CTAHR advisors making general scheduling recommendations and placing classes into suggested semesters. The BE advisor may suggest changes to the schedule according to a student's desired workload, study abroad interests, need to repeat a course, career interests, and in consideration of other factors. No further action is anticipated in response to this feedback as students are required to complete advising with both the CTAHR and BE advisors and each semester the BE advisor can make the final recommendation on the course schedule for the student.

- Some undergraduate students voiced concerns about being alone, not knowing anyone; that it was hard initially to find people in your major
- Response: The program is pursuing two actions to address this. The first is assisting the BE student association with planning in-person events in 3D printing and site visits to local companies. Additionally, BE and MBB faculty are collaborating on common 100 and 200 level courses that would serve to prepare new students for research and engineering project participation. These efforts would also serve to help new students connect with their fellow majors.
- BE students felt there was a need for earlier exposure to design principles and activities rather than waiting until the 4th year
 Response: We will try to improve it in the future.
- Some graduate students voiced frustration with unexpected and unnecessary obstacles, difficulty
 making connections and finding mentors; lack of clear communication and outdated information
 online

Response: No comments.

• Graduate students felt the curriculum was behind the curve on data sciences. Response: We teach undergraduate and graduate courses in Bioinformatics. There are other departments that are specialized in data science.

Threats

• Decline in percentages of faculty FTE assigned to teaching; disinterest in teaching as perceived by the chair

Response: True

• Low enrollment in Biological Engineering program

Response: True

• While graduating students are finding jobs, it is hard to keep them in Hawai'i without a biotech industry

Response: True

Opportunities

- Strengthen the relationship with the college of engineering *Response*: Yes, we are doing that.
- Build on already good relationships with community colleges to make sure transfer students are ready for program demands when they transfer *Response*: No comments.
- Introduce small scale design experiences in early (freshman/sophomore) classes *Response*: Yes, we are doing that.
- Explore opportunities for students to connect and build community either via student organizations or department activities

Response: No comments

• Freshman experience workshops have been successful in the past to attract new students to departmental programs

Response: No comments.

- Work to develop a common vision as a department; potential for more integration of engineering with biosciences to develop unique programs

 *Response: No comments.
- Faculty and students would like to bring back the CTAHR Student Research Symposium *Response*: Yes, our faculty and students are missing the CTAHR Research Symposium.
- Several graduate students mentioned the value of the professional development seminar to look at life beyond graduate school and the possibility of it being mandatory *Response*: No comments.

College of Tropical Agriculture and Human Resources External Report Natural Resources and Environmental Management October 2022

In AY 2021-2022, CTAHR conducted a faculty-driven, "strategic positioning" process. The process resulted in identifying four grand challenges for CTAHR. Through this positioning process and a follow-up departmental retreat held on August 17, 2022, the NREM faculty developed the following six goals for the next five years:

- 1. Strengthen leadership training and educate/graduate NREM leaders
- 2. Streamline, redesign, and modernize our curriculum
- 3. Create hands-on workforce development opportunities and facilities in NREM
- 4. Substantially expand our resources, including purposefully hiring new faculty
- 5. Grow existing partnerships and establish new partner collaborations
- 6. Increase inter-/trans-disciplinary collaboration and team projects

The NREM department plans to start a departmental strategic planning process and complete it in this calendar year, given the departmental goals, the development of the CTAHR grand challenge initiatives, and this academic program review.

Strengths

- The Department has made a concerted, successful effort to increase the proportion of female faculty to reflect their student population
 - Comment: Female candidates have not been selected over other genders, and in fact, gender is not allowed as a consideration during hiring processes. Nonetheless, the proportions within the faculty do better reflect the proportions within the student and applicant populations. For several positions, NREM actively posted the announcements to women-focused organizations such as the Association for Women in Science, and Women in Natural Resources. Moreover, the department mentors junior faculty and provides a family-friendly environment, which increases retention of female faculty.
- Faculty research output and generation of research dollars is increasing despite a significant decrease in research FTE
 - *Comment*: It is challenging for the faculty to maintain active research programs and to meet the departmental instructional demands at the same time, in particular, with a reduced number of support office staff, as the faculty needs to spend a lot of extra time in the administration of the funded projects. The NREM department is hiring a temporary full-time APT to help alleviate this situation.
- Students feel that they are in a welcoming environment and are passionate about their fields of study; persistence of students is >90% averaged from UG to PhD *Comment*: The NREM faculty is committed to creating a constructive and welcoming learning environment. NREM undergraduate and graduate core courses have intentionally been designed to do such. For example, NREM 192 serves as a welcoming entry-level course that introduces students to NREM Faculty, course requirements, timeline of course completion, and different

academic advisors (CTAHR Advising and NREM Faculty Advisors). As another example, the NREM graduate program adopted a cohort model for the MEM program. Each cohort of MEM students goes through the core curriculum together, in which the faculty plays a major role in nurturing collegial and collaborative relationships among them.

- Professors and students win awards, increasing the visibility and reputation of the department
- Integration of social and natural sciences into the curriculum is valued *Comment*: The NREM undergraduate and graduate core curriculums have intentionally been designed to integrate social and natural sciences. The NREM faculty have been making efforts to further improve the level of this integration continuously.
- Undergraduate enrollment has increased more than 2.5x since 2014
- The Chair is widely respected and regarded as a leader; departmental retreats are viewed as highly salutary

Weaknesses

- Students, in particular, perceive course scheduling conflicts and lack of personnel to teach required courses thus creating delays in graduation
- Insufficient faculty FTE for current teaching load due to high UG enrollment even with recent I2 hiring

Response to the above two comments: We agree with the need for additional faculty FTE for instruction, and appreciate the recognition of this need by the review team.

Within the NREM undergraduate and graduate courses offered each semester, conflicts are deliberately minimal. There may be conflicts with non-NREM required or elective courses that are outside of our control in scheduling.

The NREM department has been offering the core and required courses for students to complete the requirements without delays in graduation. For the last few years, the NREM department has dynamically adjusted the course teaching assignments among the faculty, recruited a number of lecturers, including one NREM Ph.D. candidate as a lecturer, and increased the number of TA positions to meet the demands for the core courses.

We see three continuing challenges at the undergraduate and graduate level.

1) It has been challenging to teach core courses with laboratory exercises (i.e., NREM 301+L, NREM 304+L, and NREM 477+L). These lab sections are limited to 20 seats and, due to resource constraints, we have been able to offer two in-person sections at a time. As temporary solutions, we created an online asynchronous third lab section of 301L for overflow students and non-NREM major students, and increased the offerings of 477 from once a year to every Fall and Spring semester. We are actively discussing a potential solution for 304L (e.g., offering 304+L more frequently).

- 2) The current I FTE is barely enough to teach all the core courses and many elective courses are not taught or only taught infrequently as a result. The NREM department has been recruiting lecturers not only to teach additional sections of core courses, but also to offer specialized elective courses where possible.
- 3) NREM instructional faculty advise NREM undergraduate students on upper division specialization courses, required internship opportunities, and career counseling. The NREM Undergraduate Chair, in particular, has been allocating additional time to meet the increased advising needs of NREM majors.
- Lack of support staff to help with spending grant money; office assistant position not replaced *Response*: We appreciate the recognition that a lack of support staff is hindering efficient operations, and agree that there is a strong need for increased support staff in both the NREM and CTAHR offices to handle fiscal, administrative, and academic support needs. The NREM office is currently run by two full-time office staff members, while historically the department had three full-time office staff members. However, one of the positions was eliminated/swept about one and a half years ago.

To address this issue, the NREM department is hiring a temporary, full-time APT position for the next 2.5 years. The position will be funded by the NREM departmental funds allocated through CTAHR which will be supplemented by the NREM departmental RTRF funds as necessary. This is meant to alleviate the most pressing problems.

The NREM department has initiated the discussion on post-award support needs with the CTAHR administration, as this cannot be addressed with the hiring of an NREM temporary, full-time APT position mentioned above. We plan to continue this discussion.

• Curriculum does not reflect evolving thoughts on the future of the field; plans to revise are not being followed-up

Response: Since its initiation, NREM has taken an inter-/trans-disciplinary approach that recognizes the need for an integration of social and natural science to natural resources and environmental issues. NREM engages and actively collaborates with community and management agency partners to address a range of problems, including those that are unpleasant, at the cutting edge of similar academic programs.

In recognition of our desire to serve local students and local needs more, and to meet the stakeholder's 21st century needs of resource management, NREM has constantly made efforts to improve our curriculum and degree programs. NREM revised several undergraduate core courses to reflect evolving natural resource management needs and practices. NREM revised the core courses for the MS and MEM programs. The revised core courses incorporate the latest research activities from grant-funded projects of NREM faculty as well as projects that are codeveloped/partnered with stakeholders in Hawai'i and other Pacific islands. NREM created and launched a professional Master's degree program, Master's of Environmental Management, which requires Capstone projects linked to community and agency priorities. The NREM Ph.D.

program requirements have been revised to provide more flexibility and encourage the diversity in the Ph.D. education. NREM proposed a new biocultural assistant professor position that has been approved for the recruitment and hiring.

We are actively working on closing the gaps in the UG and graduate course offerings created by the retirement/leave of faculty, and expanding/revisiting the UG core courses to meet increasing demands (e.g., additional sections, increasing the frequency of offerings, searching for suitable substitutes). NREM also offered a MS Plan C degree program to a limited number of professional students. The NREM department considers these and additional curriculum revisions as an important topic for the strategic planning we plan to start soon.

• No extension position at present to address climate change; essential for a native-serving institution. This situation may be remedied soon.

Response: A non-tenure-track, full-time Extension Specialist position (S3) in Climate Change Mitigation and Adaptation for agroforestry and food security in Hawai'i is to be recruited, and is expected to start in August 2023. The funding for this position has been garnered via CTAHR/NREM from USDA Forest Service and Agricultural Research Service.

The department had a non-tenure-track, full-time climate related extension position covering wildfire and climate adaptation. The department was in the process of advertising a tenure-track position in this area when the pandemic hit and a campus-wide freeze on new hires went into effect. The faculty member in the non-tenure track position moved to a new permanent position focused on ecosystem conservation. This position still covers wildfire to a limited extent and, along with other extension faculty, continues to address climate related impacts and adaptation (e.g., drought impacts, ecological restoration, reforestation, assisted migration of rare species).

• Faculty and students are not always on the same page about distance delivery of courses; students want to be on campus with the option to take courses remotely at their discretion. Hybrid delivery of courses is challenging for instructors

Response: We recognize that a diverse student group is best served by a combination of inperson, hybrid, and online courses, but have seen that needs vary among students depending on their geographic location, family needs, and professional stage.

Under our current circumstances, NREM students should plan to complete their degree largely through in-person coursework. Some NREM courses may be offered online at the discretion of the instructor. In the future we may also design an online-only degree option for the Master's program to better serve off-island students and/or full-time mid-career professionals as this is certainly an emerging opportunity for the department.

Threats

• Pressure on faculty workload has increased significantly with increasing UG enrollment, contributing to perceived faculty exhaustion

Response: We appreciate the recognition of this issue by the review team. The toll on mental health for our faculty cannot be understated. The issue is not only the UG enrollment, but also the

general "pass through" or delegation of administrative minutiae to the faculty for a lack of support staff time.

The NREM department has been working to increase I FTEs by various means (e.g., by hiring lectures, increasing the number of TA positions, and leveraging extramural grants and contracts to obtain additional faculty I FTE).

• Graduate students do not appear to often serve as co-PIs on grants, which reduces their competitiveness for positions after graduation

Response: Per the Graduate Division, graduate students can serve as a co-PI on grants. However, PIs and Co-PIs have fiscal responsibilities that would be inappropriate for a student to take. For example, if a grant goes over the budget the university asks the PI and Co-PIs to identify funds to address the difference. It would be inappropriate for a student to bear this responsibility. We will encourage graduate students and postdocs to note that they authored or co-authored a grant proposal ("with PI...") on their CV as this has always worked, based on the experiences of NREM faculty. Faculty supervisors, in turn, are almost always asked to provide recommendation letters for students applying for positions or further school, and this is an ideal place for the nuances of funding to be expanded for the benefit of the student.

• Lack of understanding of the University and College budget and fiscal systems *Response*: There are a large number of issues associated with the budget and fiscal systems across multi-levels, at the department, college, and university levels. The problems and issues that happen at each level can be the same or completely different. It is not just the faculty, but everybody including the staff who need to be involved in developing a good understanding of the University and College budget and fiscal systems, and creating an efficient and smoothlyworking system.

The NREM department initiated weekly meetings with the NREM office staff and CTAHR fiscal staff to improve our fiscal system understanding and to improve the department-college communications. The NREM department regularly reviews and discusses the budget and fiscal systems at their monthly faculty meetings. The NREM faculty has created a list of issues in the University and College budget and fiscal systems we have encountered and/or been dealing with. We will continue to work with the college to resolve these issues in the list.

Opportunities

• Explore the opportunity to provide instruction in data analysis and other quantitative skills which could be offered beyond the Department

Response: The NREM department regularly offers four quantitative analysis skills courses: NREM 203 (applied calculus), NREM 310 (statistics), NREM 358 (cost-benefit analysis) and NREM 477 (geographic information systems). There are other data analysis and quantitative skills courses in NREM.

The NREM faculty has interest in new types of data analysis courses to meet the emerging needs of society and the expectations of our graduates (e.g., data science, introductory R, and modeling

courses) and will continue to discuss the development of such courses. We have actively been developing and trying novel solutions to secure additional I FTE, including priority positions, to be able to offer these courses.

 Knowledge of and interest in climate change among Hawaiian citizens presents an enormous opportunity to extend current understanding and allow students to develop public communication skills

Response: Climate change is a key component of many existing courses in NREM. The current research portfolios of many faculty concentrate on climate change impacts and adaptation. Students are core members of these research teams. Current extension programs tackle climate-related issues (fire, reforestation, species conservation) and directly engage with the general public. Extension is one of the few programs at UH mandated to interact with the wider public (e.g., R and I FTE do not require this), but system-level focus on tuition dollars and student numbers disincentivizes departments to create and hold onto Extension positions that are meant to meet the needs of the residents of the state.

A non-tenure-track, full-time Extension Specialist position (S3) in Climate Change Mitigation and Adaptation for agroforestry and food security in Hawai'i is to be recruited soon and expected to start in August 2023 as described earlier in this document. The funding for this position has been garnered via CTAHR/NREM from USDA Forest Service and Agricultural Research Service.

• Take advantage of training opportunities for the development of instructionally sound and engaging courses through distance education

Response: This is certainly an emerging opportunity for the department as well as for the college. This requires an instructional capacity increase and an institutional investment, support, and direction (i.e., university- and college-level).

As mentioned earlier, we recognize that a diverse student group is best served by a combination of in-person, hybrid, and online courses, and needs are likely to vary among students depending on their geographic location, family needs, and professional stage. Currently and for the foreseeable future, we lack faculty capacity to offer a full suite of online courses for a degree to be 100% online while continuing the existing in-person degree programs.

In the future we would like to design an online-only degree option for the Master's program to better serve off-island students and/or full-time mid-career professionals.

• Participate in development of the new GenEd requirements and develop/revise courses to meet those requirements within the College and Department

Response: NREM faculty has participated in that process by providing feedback all along (e.g., the FQ work group) and will continue doing so. We plan to develop/revise courses to meet the new requirements as soon as they are finalized.

College of Tropical Agriculture and Human Resources External Report Plant and Environmental Protection Science October 2022

Strengths

- Faculty research output and generation of research dollars is, on average, comparable to those of similar departments in the peer institutions and high within CTAHR.
- Students are enthusiastic and dedicated to their particular major professors
- Professors and students win awards, increasing the visibility and reputation of the department
- One of the few places in the United States where quality training in research on tropical systems is available
- Entomology museum collection is an impressive resource even though underfunded
- Department members feel they are having a positive impact on food security in Hawai'i and have a leading role in this Grand Challenge

Weaknesses

- The departmental name does not communicate the scope of the department *Response*: What are some suggestions? PEPS faculty don't have any suggestions and feel that it captures what we are doing very well.
- Greenhouse facilities are shockingly poor; facilities for field research are reportedly poor as well *Response*: We agree. Faculty or students now have to do general cleaning and maintenance around the greenhouse. The university must prioritize replacement of the greenhouses on campus and at Magoon for teaching and addressing food security and sustainability for the state. Leaky roofs that don't allow users to wash the floor covered with algae post a worker safety threat.
- Students perceive of course scheduling conflicts and lack of personnel to teach required courses creates delays in graduation
 - Response: PEPS and TPSS faculty are offering many undergraduate courses. It is impossible to avoid every single conflict. As best as we can, we moved PEPS courses around to avoid conflict. For example, we move PEPS 363 from Fall semester to Spring semester. We also moved PEPS 410 to avoid conflict with one TAE course, but could not avoid conflict with another. Undergraduate students need a minimum of two years from joining the program to graduate. So if they have conflict in their first year, they can still sign up for the class in the second year. There is no data supporting this claim of delays in student graduation due to PEPS Classes not being offered. As soon as the CTAHR Academic advisors see courses not being offered and students want to register for the courses to graduate, the advisors will immediately contact PEPS faculty advisors. We are always providing substitute courses for them to graduate in time. We had been advocating for a faculty position to replace our Mycology faculty position vacated since 2018. This position has an undergraduate teaching FTE for Plant Disease Management (PEPS 430). PEPS hasn't been approved for new faculty positions since 2019. PEPS 430 is the only undergraduate course in PEPS that is listed in the TAE program sheet as a required/elective class needed to graduate.

- Both faculty and students are resistant to distance delivery of courses; no good plan exists for delivery of courses requiring labs
 - *Response*: Fact check: Not true. PEPS 463 is a hybrid class that is partly online and partly in person for maximum student learning outcome. The reason for other classes not to be delivered through distance education is because we delivered most courses online during the pandemic. Assessment of student learning from this period, as well as the interview from the reviewer with the students during this program review clearly suggested that distance delivery for lab courses were ineffective and not preferred by students. PEPS is happy to offer a lab in distance mode if it meets the learning objectives of a specific course and if students express interest otherwise.
- Support staffing is too low, requiring some faculty to fulfill staff roles and reducing their availability for teaching and research *Response*: In agreement. We have lost at least one Office Support staff member in the PEPS office and will have no office support staff from March 1, 2023. We also lost all the technician support for the research facility including greenhouses, field plots. This has created strain on maintaining research quality in the field or in the greenhouse, especially when greenhouse and field research facilities are aging beyond repair conditions.
- Large gap between extension FTE and extension needs; highlighting this gap, the legally required Pesticide Safety Training Education Program has no permanent PI, and there is no one designated for the IR4 program
 - Response: Agree. However, we do have an interim PI to oversee Hawai'i IR4 program and Pesticide Safety Training for now. This is not a long-term solution as this is adding a heavy workload on the existing faculty. We are lucky that currently we still have two technicians that are very capable of carrying out lots of field trials independently. The interim IR-4 PI also hired a grant-funded full-time technician in 2022. However, they might be retiring in the near future. We have on-going discussion with legislators regarding support for PEPS positions.

Threats

- Graduate student stipends are insufficient, especially given the cost of living in Honolulu, resulting in extreme financial stress
 - Response: Unfortunately, this is limited by our funding. Many faculty in PEPS do pay Graduate Assistants higher than the minimum rate for GA (one can check our record), cost of living in Honolulu is simply cannot be resolved by faculty funding. This is not only impacting graduate students. Retention of faculty at UH is also significantly affected by the high cost of living in Hawai'i. PEPS suffered faculty loss or failed to recruit the top candidate for a position due to insufficient stipend for assistant professors.
- Graduates are not tracked in an organized way, limiting engagement of alumni in recruitment and departmental support
 - Response: We are not clear what is meant here. We are able to contact alumni when needed.
- Lack of funding for repair and maintenance of facilities;

Response: Grant funds can be obtained to assist with this, but the process of getting the contracts takes forever, often after the funds are expired! Everything has to go through facilities to do it properly. Facilities have outrageous costs to make repairs.

• Absence of key faculty for graduate training (i.e., Mycology) and attracting partnerships and funding through One Health initiatives (i.e., Medical/Veterinary Entomology)

*Response: agree, and PEPS has been advocating to fill the Mycology position gap since 2019. It was approved to open for hire in 2020, then the position was swiped.

PEPS is involved in UH level discussion about OneHealth initiative, and the Undergraduate One Health Certificate was recently approved. No funding was mentioned. PEPS is currently offering a Medical and Urban Entomology (PEPS 463) course that meets One Health initiative training. Another faculty is planning on offering an Agrosecurity course to UG level with course modification. Though we suggested including several other PEPS courses to be included in the One Health Initiative discussion, they were declined

• Remaining strain due to consolidation of two departments interferes with a sense of community; the "sections" and "co-chairs" arrangement, while effective day-to-day, leaves the department feeling rudderless and helpless to effect change *Response*: Not sure where this comment is from. Faculty don't feel this way. The department is not looking for big change, but our day-to-day operation is functioning. Our "sections" and "co-chair" arrangement is only internal, there is no financial support for UH to pay additional funds to support this arrangement. We feel that this internal arrangement allows each section to discuss more issues that are most relevant to each section for program development and other activities relevant for each program. It did not stop the department from having regular monthly department-wise faculty meetings. PEPS faculty don't see why we should stop each section from

additional meetings other than departmental meetings. PEPS faculty feel that this is working very

well.

- The blanket disallowance of three-way split appointments and two-way E and I splits exists despite complete justification for such in certain cases *Response*: Agree, we are glad that the new admin in CTAHR now is open to 3-way splits. PEPS has strong commitment to Hawai'i stakeholders; we are cut down to only one extension agent position. We are still worried that priority staffing requests only give priority to Instructional hire, so a 3-way split is our hope to address multiple needs.
- Continued concern regarding needing to increase enrollments in "small programs" *Response*: Reviewer suggested getting rid of MS programs and just focusing on recruiting for Ph.D. programs. This is how UH BOR needs to categorize M.S. and Ph.D. as separate programs. Minor or Certificate are also not considered as a program so we are discouraged to create Minor or Certificate. This issue is probably related to the need to educate the BOR to define what a program is. Otherwise, student enrollment combining M.S. and Ph.D. are approximately 20 for both Entomology and TRPP, respectively. This is more than appropriate considering the size of

the tenure track faculty we have in PEPS (with FTE of 5.35 R, 2.2 E, 3.35 I). BOR should use a broader matrix to make decisions for "Small Program".

Opportunities

- Advocate for a focused, comprehensive departmental review to help clarify goals and pathways to achieve them
 - *Response*: Thank you for the suggestion, it is our goal to follow the Goals we listed during our PEPS strategic positioning meeting last year.
- Find ways, perhaps with external mediation, to improve the sense of community among faculty, whose attitudes and behaviors will be reflected by students
 - Response: Thanks for the suggestion for an issue raised in the 2015 program review. PEPS did have an external mediation with a consultant in 2016-2017 to resolve the conflict. This was done after the 2015 program review. It is not clear what "faculty attitudes and behaviors might be reflected by students" are. To further address the issue, the department has been organizing at least 4 social events a year (two in the Spring-Lunar New Year to welcome students, Administrative Support Day to show appreciation to our staff; and two in the fall semesters: Pumpkin Carving Contest for Halloween and Christmas Party) for the entire department, and they are well attended. Faculty, students and staff are mingling very well. In 3 of these events, we engaged all participants to contribute food in a potluck style, and we also had games for better social interaction. The Pumpkin Carving contest which PEPS has been organizing for > 10 years continuously even during the COVID with some social distancing guidelines. It is always well participated / attended and made into CTAHR News every year. This event is usually not associated with a potluck, but the students enjoy the potluck parties in the other 3 events so much that they are requesting that we also do potluck this year.
- Increase the visibility of plant pathology and entomology within the One Health initiative by participation and advocacy *Response*: PEPS faculty, Mike Melzer (Plant Pathologist) is the faculty representative of One Health Initiative for CTAHR. Our Entomologist, Jia-Wei Tay is also in the One Health Initiative Discussion group. In collaboration with other faculty in CTAHR, they are making a poster this semester to bring awareness. Poster will be at UHM Research Day at the State Capitol on Feb 7, 2023. PEPS shows visibility of plant pathology and entomology within the One Health Initiative.
- Participate in development of the new GenEd requirements and develop/revise courses to meet
 those requirements within the College and Department
 Response: Facts: PEPS does offer General Ed courses for DB and DY, and PEPS also has
 multiple courses designated with OC, WI, or ETH foci. PEPS is also part of the One CTAHR
 Team proposing a new course on "Transdisciplinary Approaches in Sustainable Food Systems
 and Community Health". PEPS is contributing to students meeting their general education
 requirements. Many students outside of the college take our classes to gain GenEd or focus credit
 requirements.
- Review and revise the list of institutions regarded as peers

Response: PEPS is revising this taking into consideration the number of faculty, students, institution support, same land grant designation, size of the state in terms of agriculture. Who do we want to be compared to as Peer institutions vs benchmark institutions.

College of Tropical Agriculture and Human Resources External Report Tropical Plant and Soil Sciences October 2022

Strengths

- Relatively new chair is working to build a positive environment for faculty and enhanced departmental participation; chair is cognizant of need to honor Hawai'i as a Place of Learning and starts every faculty meeting with a Hawaiian concept
- New faculty hired since 2015 are productive and can build the future for TPSS; interested in transdisciplinary work
- Strong programs in plant genomics and indigenous cropping systems; unique niche in tropical agriculture
- Good support from industry
- Shifts in federal funding emphases to include biocultural concepts, local/regional agriculture are positive for the department
- Large number of faculty with Extension appointments, very productive; chair is working to reengage them with the department and integrate with teaching/research faculty
- Undergraduate students appreciate hands-on experiences including greenhouses, field work and research laboratories; students find the professors to be helpful and excellent teachers
- Graduate students note attempts to improve the program faculty handbook, graduate handbook, early orientation pau hana; feel the department has been receptive to feedback

Weaknesses

- Loss of expertise in multiple aspects of soil science; potential for collaboration with NREM, but perception that the institution doesn't promote collaborative work *Response*: Given the multidisciplinary nature of TPSS, there continues to be competition in what positions to prioritize. While soil science is part of the Department's name, not all faculty show strong support for it. The Chair has been actively promoting collaboration among soils faculty in TPSS and NREM faculty who have a soils component to their research/teaching (Crow and Tsang). We have developed the Soils Collaborative which has worked together on a wide range of initiatives (Sherman space renovation, purchase of laboratory equipment, grant proposals, et.). The Collaborative is also actively strategizing on position hires that satisfy the needs of both the TPSS and NREM departments.
- Loss of office staff, and understaffing in CTAHR has lowered morale; slow fiscal and human resource processes

 *Response: I have been in discussion with the Chair of NREM to find areas of collaboration to
 - *Response*: I have been in discussion with the Chair of NREM to find areas of collaboration to address shortfall in office staff. However, this situation stems primarily from decisions made at upper levels, which do not seem to appreciate the extreme nature of hardships manifested at the departmental level.
- Lack of adequate staff to maintain farms, facilities, instructional greenhouses; have great land and facilities, but not enough staff to manage them and utilize effectively

Response: These are issues that must be addressed at levels above the department. TPSS has always advocated for funds that support the needs to maintain functioning off-campus research and instructional facilities.

• Faculty are charged bench and location fees to be used when things break, but there is no one to fix anything

Response: Yes, fees are charged for bench space in Magoon. The fees are used to support purchases for the maintenance. The Magoon manager has provided excellent maintenance support. However, when large malfunctions occur, their repair is under the jurisdiction of UH facilities. UH Facilities is slow to respond. If at all.

 Lack of support for teaching innovation at the college level, perception that teaching is not rewarded; only one college award for teaching *Response*: None

• Little enthusiasm for distance delivered programs

Response: There seems to be support to increase distance learning, but perhaps this is not conveyed clearly to faculty or there is a lack of material and technical support available to ensure implementation. There needs to be a clearly articulated vision and plan for distance learning that comes from the CTAHR administration.

• Some undergraduate students don't see much connection in TAE or CTAHR to native Hawaiian studies, including studying native plants

Response: This is an historical issue. The Department has recently committed to making a more concerted effort to integrate Native Hawaiian culture into its program. However, it will take time to materialize. At our last department retreat held Jan 6, 2023, a committee was established to develop guidelines to ensure TPSS honors Native Hawaiian culture and issues.

 Lots of undergraduate courses on the books, but many aren't being taught because of lack of faculty

Response: As PEPS and TPSS work to formalize the Tropical Agriculture and the Environment program, course listings will be updated and new courses will be developed. Currently, two new courses are in the process of official approval.

- Undergraduate students were frustrated by limited availability of CTAHR advisors and perception that advisors aren't listening to students needs *Response*: This has been an ongoing issue in TPSS with some faculty voicing strong opinions that advising should be returned to the departments. The issue is currently under discussion within the department.
- Some graduate students felt the on-boarding process was difficult, especially if were not already in CTAHR as an undergraduate; lack of clear communication about funding availability and support through entire program

Response: Efforts are currently underway to address this. The Department Graduate Committee is actively addressing the issue. A new graduate student handbook has been developed and the committee is working on improving new graduate student orientation.

• Large variation in faculty commitment to mentoring graduate students; some younger faculty with too many; some senior faculty doing very little mentoring; the pressure younger faculty feel trickles down to students; students perceive that most faculty are not passionate about teaching *Response*: Younger faculty are making tremendous efforts to mentoring students. The Chair feels there has been much improvement as younger faculty build their programs. The issue with older faculty who are less involved in student mentoring is difficult to address.

Threats

• Lingering resistance to merged undergraduate program (TAE) across two departments (PEPS and TPSS)

Response: The Department Chairs of TPSS and PEPS continue to work closely with the TAE Curriculum Committee to ensure the success of the new program.

- Lack of leadership at college level for collaborative grants, building teams; not a lot of college integration; faculty see silos of departments and disciplines *Response*: As the Chair, I do not see evidence for this comment. In fact, during the last three years the Associate Dean of Research has made it crystal clear that the College supports collaborative work. This is evidenced by the Team Science Initiative.
- Graduate student stipends aren't enough to live on; many students have second jobs; costs, such as health insurance aren't disclosed clearly upfront *Response*: This appears to be a campus-wide problem. TPSS is following the stipend schedule set by the Mānoa graduate division.
- Some graduate students felt the department wasn't welcoming to those who are different or those who speak out

Response: The Chair has made efforts to ensure that TPSS appreciates the importance of diversity, equity and inclusion in its operation and delivery. The Chair has made it normal for TPSS GSO representation at monthly faculty meetings where students now have a platform to voice their concerns. Over the past year no student concerns were brought to the faculty's attention.

Opportunities

- Department is in the process of refining its vision and mission and can build this with connection to the CTAHR Strategic Positioning and Visioning document *Response*: TPSS held a faculty retreat Jan 6, 2023 where this was one of the main topics The department has developed an action plan with a committee to address.
- Systematic curriculum review of TAE undergraduate program to avoid duplication and develop new modern courses

Response: TPSS held a faculty retreat Jan 6, 2023 where this was one of the main topics The department has developed an action plan with a committee to address

- Recent reorganization of PhD program combined with recent faculty hires can position PhD program for success, especially if able to add a few more faculty to TPSS
 Response: None
- Build on the experiences of active student organizations (Horticulture Society, SOFT) to engage more students and build community

Response: TPSS GSO has been very active Fall 2022 and into Spring 2023

• Undergraduate students would like more opportunities for courses in agribusiness and entrepreneurship

Response: None