

APLU Deferred Maintenance Committee report

Strategy Proposal

25 May 2016

The group's charge is to develop a strategic framework for addressing the deferred maintenance challenge for U.S. public universities and agencies involved in research in food, agriculture and natural resources.

There is a compelling need for a major investment in the infrastructure that supports public research in food, agriculture and natural resources. Research spending by private industry has surpassed the public investment manifold, yet private industry still depends on publicly funded research for new advances in fundamental science and in preparing the scientists of the future. While the private investments are critical for ongoing advancements in food and agricultural production, they are limited in scope and are too closely tied to profit generation in the short term to help advance breakthroughs needed in fundamentals of food, plant, animal and environmental sciences.

The recent Sightlines study (Kadamus, et al. 2015) documented a critical need to address aging infrastructure for agriculture, food and natural resource research at public universities. Of 15,596 buildings included in their assessment, containing 87 million gross square feet of space, 52% was built between 1951 and 1990, the period when buildings were built quickly and with lower quality standards and materials. Research facilities built in this time period accounts for 68% of the deferred maintenance costs across the system, which totals \$8.4 billion. The replacement cost of all research space in the system is estimated at \$29 billion.

Failure to address this challenge aggressively and systematically puts the entire public reliance on public research in food, agriculture and natural resources at risk. This will lead to a reduction in the number of institutions involved in conducting this research, a reduction in the sophistication of the research that is undertaken, and a risk to private enterprise in not having access to fundamental research findings that can fuel their innovation and translation of research into commercial application. The private sector will be more dependent on their own innovations, which will be more protected than information generated in the public domain, and will put the U.S. agriculture, food and natural resource industries at competitive disadvantage at the time that other developing and developed economies are increasing their public investment in food, agriculture and natural resource research.

One of the unique features of the research enterprises that undergird the tremendous success of the U.S. food, agriculture and natural resource industries is the partnership between private industry, ranging from individual farming and ranching operations to large corporate agribusiness and food marketing entities, the federal government through the U.S. Department of Agriculture, Food and Drug

Administration, Environmental Protection Agency, and Department of Interior, state governments, through their state agriculture commissions and investments in public universities, and those public universities. Non-government organizations such as commodity groups and professional and farming organizations have an interest in this as well.

Two key objectives have been identified for strategic action: 1) improving stewardship of facilities through adequate planning and funding of ongoing maintenance needs, and 2) investing in major renovations or new construction to replace aging and ineffective or unsafe or inadequate research facilities.

In order to address the improved stewardship, we recommend the following actions:

- a. Development and communication of facility stewardship best practices and standards for facility managers to use.
- b. Seek full funding of Indirect Costs from all granting agencies. This should include U.S. Department of Agriculture funding (AFRI, block grants) as well as private industry funding.
- c. Greater leeway in use of NIFA Capacity Funds for facility operating expenses

In order to address funding for major renovations or new construction of research facilities, we recommend the following actions:

- a. Create a grants program within NIFA to assist in funding major renovations or new construction to replace facilities created prior to 1990. The program should be designed so as to replace at least half of the facilities built prior to 1990 within the next 10 years. This represents approximately \$10 billion over 10 years.
 - i. The program should require documented matching funds from other partners, either state government, university, or private sector matching funds.
 - ii. The program should include two tiers, e.g. projects under \$5 million and projects greater than \$5 million in total costs, with different matching requirements for each category
 - iii. Proposals should be evaluated on their ability to address regional needs, to accommodate collaborations with other universities and states, and to enhance collaborations with USDA-ARS
 - iv. Proposals will be required to include a stewardship plan for ongoing maintenance of the new facility.

These two elements should be incorporated into planning for the 2018 Farm Bill.