Areas for Immediate Action

The Sustainability Group believes that significant and on-going adaptation is needed in
the programmatic focus and organizational structure in the College of Agricultural
Sciences to sustain and enhance excellence. The College faces substantial challenges, due
primarily to changes in its funding base. We must adapt to these challenges or risk being
marginalized within the University. If we face the new realities by changing the way we
operate we believe that the College has an excellent future.

This report covers several key issues and suggests a number of actions. We have
identified the following areas as the most critical, and recommend them for immediate
action in order to implement a sustainable model for achieving College excellence:

1. In an environment of shrinking funding from state and federal appropriations the
   College needs to determine *areas of excellence* with the goal of being a state,
   national and international leader in these areas, as well as a center of expertise
   within the University. Areas of excellence need to be clearly identified within the
   College, appropriate mechanisms must be implemented to make them
   operational, and funding must be provided to invest in their development.

2. The College must set clearly defined *program priorities* to provide future
direction and guide the investment of resources. Programs should be defined by
   stakeholder needs, responsive to future sources of funding and be inter-
disciplinary in nature. College priorities must be applied across all functions and
   units and the governance structure should be modified to make inter-disciplinary
   program areas an important focus of the work of the College (see below).

3. Resources should be allocated on a merit basis, *not* through historical allocations.
   Resource reallocation should support identified areas of excellence and program
   priorities. We need to move away from a culture of entitlements to one in which
   resources support the pursuit of program priorities and reward scholarly
   achievement and success over time in furtherance of these priorities.

4. We propose that the College establish and institutionalize a “Futuring Group”
   composed of a small representative set of stakeholders and recognized leaders
drawn from outside the College to advise the deans on near-term and long-term
   strategic directions. This group should include individuals who have a depth and
   breadth of understanding of the human, socio-economic, political, physical and
   biological dimensions of the agri-food system as well as emerging issues in non-
   agricultural systems in Pennsylvania and globally. Above all, these individuals
need to have an appreciation of how the College must continually change in order to ensure continued relevance and sustainability.

5. An appointed Executive Advisory Body, composed of recognized faculty leaders in the College, should be created to provide on-going strategic and operational advice to the deans. The Dean should appoint at least some of the members of this committee. This group would provide advice on program priorities, means for seeking additional resources and areas for future investment at the College and University levels. This body will replace the existing Faculty Advisory Committee.

6. The establishment of institutes, based on program priorities and already adopted in the environmental area, should be applied more generally in order to develop an inter-disciplinary approach in priority program areas. Funds obtained through efficiency savings and internal reallocation should go to the institutes to support investment in program development. The institutes will take the lead in efforts to secure external funding for program development. In addition, these institutes may be aligned with university institutes providing further access to resources.

7. Cooperative Extension should align its program based upon current and emerging issues relevant to the stakeholders of Pennsylvania; within each of these defined issue areas, program teams would be funded to provide leadership for statewide programming. There should be at least partial alignment between Extension program teams and College program priorities. Strategic investment must be made to assure statewide programs have highly qualified educators and faculty to provide leadership for statewide teams.

8. The current structure of academic departments should be replaced by the end of the current strategic planning cycle by a smaller number of schools, structured along a related discipline basis (e.g., plant sciences, animal sciences, social sciences). The schools will provide the necessary administrative structure for managing space, undergraduate and graduate teaching programs, and handling promotion and tenure etc.
The Problem
The College of Agricultural Sciences will face increasingly tight budgets in coming years. A persistent decline in the relative contribution of federal formula funds seems unlikely to be reversed. Future increases in state funding (if any) are likely to be modest. Even if the President and Board of Trustees take a conservative approach to future salary adjustments, likely increases in personnel costs (salary and benefits) as well as the effects of inflation on other costs will place sustained pressure on the College’s financial resources. While there are opportunities for tapping additional sources of revenue, it is unlikely that these will compensate fully for the anticipated reduction in base funding from state and federal sources.

The chart shows the actual and projected shortfall in federal and state funding (extent to which increases in base funding have failed to keep pace with increases in salary and benefit costs).

If we continue on trend then we are facing a cumulative shortfall in state and federal funding of around $29 million by 2015. Under an “optimistic scenario” in which the rate of increase is cut in half – we would still have a cumulative shortfall of around $20 million. The simple fact is that the cumulative shortfall has been expanding so rapidly during the current decade that highly optimistic (and unrealistic) assumptions about the future flow of state and federal funds would be needed to make any major difference to the financial outlook for base funding for the College.

In the light of this, a significant proportion of the resources needed for investment in the future of the College must be generated internally, i.e., through achieving cost savings, through reallocation, and by securing extramural competitive funding. Every effort must
be made to exploit new sources of funding and to preserve existing sources, but the need for internal budgetary discipline is taken as a given in framing this report. It is essential that the College find ways to secure the necessary resources to make strategic investments and to use its resources to foster a climate of relevance and innovation.

**Statement of principles**

Any future financial and organizational model needs to be underpinned by fundamental principles that will determine what sort of College we shall be in the future. We consider the following to be fundamental guiding principles:

- Relevance – we have programs and activities that are relevant to the needs of stakeholders and society as a whole
- Shared vision – faculty, staff and administrators have a shared vision of the mission of the College and subscribe to established priorities
- Responsiveness – we are responsive to changing needs and adapt our research, instruction and extension activities to meet these
- Commitment to change – faculty, staff and administrators have a commitment to adapt to changing needs
- Flexibility – we adapt internal structures and methods of operation to meet changing needs and to adjust to the external budgetary environment that we face
- Building and sustaining excellence – priority is placed on building and sustaining excellence in research, resident education, and extension
- Focus – we cannot be all things to all people, there is recognition of the need to focus our efforts on those activities that are of greatest relevance, in which we can develop excellence, and can be competitive in obtaining external funding
- Scholarship – excellence in scholarship is the basis of all our programs
- Service – we continue to value and pursue the land grant mission of service
- Incentives – faculty and staff are rewarded for their efforts, in particular those that contribute to the achievement of strategic priorities
- Transparency – faculty and staff are kept fully informed about priorities and criteria used in the future investment of resources
- Dialogue – there is a culture of dialogue in establishing and pursuing strategic objectives and program priorities
- Sustainability – the future of the College relies upon the implementation of a sustainable model for managing resources and for investing in the future
- College governance should be one of a shared leadership model in which faculty, staff, administration and stakeholders feel empowered to be engaged to bring about the change needed for sustainability.

**The Opportunity and the Challenge**

Given the shifts in population and cultural characteristics, the change from a manufacturing to a service and knowledge economy and evolving competition for natural resources, trading partners and strategic alliances in Pennsylvania, the nation and the world, it seems inevitable that there will be pressure to focus more of our effort on non-traditional issues – issues other than those that have defined the College in the past. Much of the increase in federal research funding is being devoted to such issues and is awarded on a competitive basis. A continuing relative perception of the economic importance of
food and fiber industry, particularly production agriculture, has brought about an emergence of a range of new priorities, such as biosecurity, economic viability, the environment, food safety, diet and health. Thus sustainable development means that the College will have to respond to changing needs if we are to maintain relevance and ensure economic sustainability. The importance of quality food production and business practices within this industry continues to be of importance to Pennsylvania and needs to be balanced within the new emerging range of priorities. This represents both an opportunity and a challenge for the way that the College is structured and the way that we operate.

The budgetary outlook requires changes in the way that resources are managed in the College. A “business as usual” model is not sustainable. Although the College has done a creditable job of adapting to modest increases in state and federal funding, cuts in personnel and programs will be required in the future unless we are highly effective in tapping new sources of funding. Furthermore, a reallocation of resources will be required to support the investment needed to develop and maintain areas of excellence. The future viability of the College depends on us being recognized both within the university and state, as well as nationally and internationally, as among the very best in those areas of scholarship that we choose to pursue – to make this a reality we must have the right organizational structure in place and mobilize the resources that are necessary to develop our scholarship.

To ensure sustainability, the College must:

- Improve the evaluation of performance and accountability with respect to the use of existing resources.
- Promote greater inter-disciplinary effort within and across research, resident instruction and extension in order to address increasingly complex issues
- Exploit existing disciplinary strengths and build new ones to establish areas of excellence in which we will be state, national and international leaders
- Adapt to changing state, national and international needs
- Implement a systems approach to enhance the integration of the three functional areas – teaching, research and extension.

The central challenge facing the College is to design and implement a strategy to meet these requirements in the face of continuing pressures on resources. Key elements in a strategy for advancing excellence and ensuring a sustainable college are:

1. Setting priorities
2. Investing resources in line with priorities
3. Controlling costs
4. Securing additional funds to support priorities
5. Changing organizational structures to support priorities.
1. Setting Priorities

Issues:

- Currently priorities are established at the unit and at college levels. There is a process for implementation of new college-wide priorities. However, the college has not established clearly those areas of excellence that should be enhanced.
- There is a need to be more specific in identifying the focus of a limited number of priority program areas that cut across disciplines and departments, and are targeted to specific objectives, e.g., we have a focus on food systems that is identified in our strategic plan, but what exactly is that focus? What is the focus of our work in food and health?
- Priority areas should be defined with some deference to priorities established at the University level and how the College can contribute to achieving these. They should also take into account the role that the College can take in broadening the contribution and effectiveness of the University as a whole in research, resident instruction, and outreach.
- A general recognition is needed that our college cannot be all things to all people given the anticipated future level of resources that will be available. We must be prepared to eliminate some of our existing programs and activities in order to invest in priority areas.

Actions:

- We propose that the College establish a “Futuring Group” to advise the deans on future programmatic direction and strategic issues. This group will be composed of a small number of stakeholders and recognized leaders outside the College. It should include individuals with a broad perspective who understand what the College is now and can advise us on what it should become in the future.
- We suggest that a college Executive Advisory Body (6-8 individuals) be established to provide operational advice to the deans and to identify areas for future development. This group should be used to support efforts to provide input at the university level on future areas of support, such as has occurred recently in the energy area. The members of the group should be recognized faculty leaders within the College, some appointed by the deans. This body would replace the current Faculty Advisory Committee to the Dean, which should be disbanded.
- Areas of excellence need to be identified and further enhanced in order for the College to obtain state and national recognition and be competitive in obtaining external funding and funding provided through University initiatives.
- Strategic plans developed by the various units should address the contribution to be made to College and University priority areas and actions to be taken to contribute to the development of areas of excellence. A more interactive approach is needed in the strategic planning process through which an overall direction on priorities is provided to units and units generate ideas on how to achieve these for incorporation in the College plan.
- Greater transparency is needed in setting and implementing priorities. Priorities established at the college level on the basis of the work of the internal task forces, advisory bodies and the administrative team (deans, academic and regional unit leaders) should be publicized, as should the rationale for securing additional...
funding from the Commonwealth or other sources. Greater transparency is required regarding the rationale for the allocation of additional resources to units consistent with priority programs and areas of excellence.

- The effort that has been devoted to increasing student recruitment (e.g., by increasing the attractiveness of our majors, improving curriculum, and strengthening recruitment activities) needs to be continued and expanded to reach non-traditional populations. Departments and programs that have greatly increased their enrollments and credit hours taught should be rewarded, such that over time the allocation of available resources to support teaching will follow enrollment growth and contribution to credit hour generation.

- Extension priorities should be organized by issue areas with defined programs that are tied to these issue areas; and substantially aligned with College program priority areas. Faculty, extension educators, extension associates and program assistants will make up the program teams and be held accountable for development of state-wide programs and their delivery; staffing plans need to be a part of the program plan to assure program coverage and opportunities for cost-share positions with the College and counties. Program teams must be creative in revenue generation and relationship building with other agencies and organizations within the state and national, as appropriate to enhance funding for current and future programs. Effort should be made to seek expertise from other colleges to enhance Extension programming.

2. Evaluating productivity and allocating resources in line with priorities and performance

**Issues:**

- Individual effort and productivity, while primarily a function of personal creativity and drive, is greatly affected by institutional feedback (through tenure and promotion, salary adjustments, space allocation etc.). In order to achieve program priorities, personal productivity within the College should be increasingly judged against program priorities in addition to disciplinary performance.

- The pursuit of excellence requires resources. An improved structure needs to be developed to direct resources to priority areas established at the college level. We suggest that the institute model already developed in the environmental area, through the creation of ENRI, be applied in other priority areas. In future, a larger share of available resources should flow through institutes to implement priorities, rather than through existing departments. In fact, we propose that the College move away from the existing departmental structure to one based on schools (see below).

- Resources should follow effort and success. A culture of rewarding faculty and units for their achievements in priority areas and contributions to strategic objectives is needed. Entrepreneurship should be rewarded, providing that this contributes to achieving strategic objectives (see the recommendations below on faculty evaluation and rewards).
• There is a tradition of “entitlements” that restricts the reallocation of resources (both staff and departmental allocations) within and among units. Departmental allocations have changed little in the past 10 years. The culture of entitlements must be changed immediately if we are to invest in areas that show the greatest promise for the future.

Actions:
• To free up resources to support program priority areas we propose that an annual adjustment formula be applied to the budgets of the units, i.e., similar to the recycling approach adopted at the University level. Each unit would be required to recycle a certain percentage of its base funding each year so that the resulting funds can be allocated to priority areas. The adjustment would continue to be applied up to the point at which funding for units could be allocated annually in line with their respective contributions to functions (see below).
• Allocations of funding for teaching would be varied annually in line with contribution to the teaching mission of the College. Benchmarks might include the number of students enrolled in respective majors and student credit hours generated.
• For extension, allocations should support program teams working to implement priority programs within issue areas as defined by the teams; these would be varied with each program planning cycle with changes in the number of extension staff and demonstrated success of programs (current program and staff evaluation systems need to be strengthened for the purposes of providing program impact). Fair evaluation is necessary for faculty, extension educators and other staff working on program teams. Program success will be measured by clientele impact and the teams’ success in enhancing program offerings and delivery across the state by receiving grants and partnership funding.
• Performance standards must be standard set for Extension Educators. Extension must recruit and hire the highest quality educators possible in all program areas; recruiting and hiring of the very best in high demand market areas must be allowed to ensure we are hiring the best person. We should be hiring our first or second choice candidates and not the 3rd, 4th or 5th; we must bring about balance between standing and fixed-term appointments to allow us to hire the very best; salary adjustments must be made to be competitive in high demand market areas to get the highly qualified candidate and/or to attract a diverse workforce. The increased cost of attracting the best educators should be assumed even if it means fewer educators across the state.
• For research, money available for graduate assistantships and fixed term research positions should be linked to: the number of graduate students and the ratio of external funding (through grants and contracts, scholarships etc.) to base funding. The current system of providing block grants or entitlements to units for graduate assistantships should be phased out. Graduate assistantships should be provided as “seed money” on a competitive basis or on a matching basis to reward units who are successful in attracting students to their programs and in securing external funding to support research.
• In order to encourage faculty and staff to adjust their efforts in line with the changing needs of the College, we suggest that performance and reward systems place top priority on recognizing and rewarding contributions to the achievement of strategic objectives. Such contributions should be a major factor in the award of Presidential Excellence dollars in salary determination and in the allocation of support dollars at the unit level.

• The current instrument used for annual faculty evaluations in the College should be redesigned in order to assign greater weight to contributions to achieving strategic objectives. It is suggested that the weighting given to this be equal to the aggregate weighting for the extension, research and resident instruction functions. In addition, the leaders of excellence centers and priority programs should have input into faculty evaluations.

• We suggest that periodic external reviews be conducted of priority program areas established in the College (3-5 years) with ratings prepared on their performance (using an agreed set of metrics) in order to determine whether to invest additional resources in these or to reallocate investment to other program areas.

3. Controlling costs

Issues:

• Given the uncertain funding (revenue) outlook for the College, controlling costs must be a major component of the strategy to ensure sustainability.

• Under the current system of unit “entitlements”, there is little pressure to ensure that resources are used most efficiently in the College as a whole. It is vital to ensure that available resources are used to further College strategic priorities with respect to program areas and the development of academic and strategic excellence.

Actions:

Improving cost effectiveness and efficiency across all units

• We propose that an external organization, management and operations review be carried out for the College. A firm of organization and management experts, familiar with the operations of universities or non-profit organizations, should be engaged to analyze organizational culture, structure, operational systems and processes and costs at the College level and across all units in order to prepare recommendations to increase effectiveness, efficiency and how cost savings can be made.

Improving cost effectiveness and efficiency in service units

For many units, it is difficult to identify whether existing resources are being used efficiently. An external review could help to identify cost savings and opportunities for increasing efficiency. In general, there is a need for a more “market-oriented” model of operations. One important example is provided by the farms operated by the College since they place a significant demand on college resources. Because of the nature of farm operations in a university context, it is unlikely that farm operations can be entirely self-supporting. However, a number of changes could result in savings. Among these are:
1. charge the full costs of services provided to departments who generate revenues from farm activities
2. ensure the full charge back (where feasible) for the use of farm operations and services in research projects
3. as part of the overall review of college operations (indicated above), we suggest that the business model for all the farm operations in the College be examined to evaluate the possibility for partial or full privatization in order to reduce expenses and increase revenues.

4. Securing additional funds to support priorities
   Issues:
   • Given the uncertain outlook for funding from traditional sources, every effort needs to be made to exploit new opportunities for funding, and to make the best use of sources to provide leverage for additional funding.
   • The College needs the support of officials (legislators, county commissioners, and other agency professionals) in urban, as well as rural areas, for the research, extension and resident instruction missions of the College.
   • The College needs to be active in pursuing funding made available through University initiatives and to be pro-active in establishing such initiatives. For example, the College could play an important role in the development of a University-wide initiative on diet and health.
   • The College needs to strengthen relationships with the state organizations and agencies where common goals are defined. Extension could be the provider of choice to deliver education to constituents of the Commonwealth.

Actions:
• Continuing effort should be devoted to increasing student enrollments in order to obtain a larger share of the University’s E&G appropriation.
• It is critical to continue and expand our college development efforts.
• The expertise of the proposed College Futuring Group should be used to identify new and creative approaches to generating revenue to support College priorities.
• The approach already developed in the environmental area should be expanded to create a limited number of institutes that are aligned with principal program areas and through which resources can be channeled to develop those areas. These entities would create critical mass in key program areas; increase the visibility of the College’s work; provide vehicles for fostering inter-disciplinary collaboration; and co-ordinate efforts to secure outside funding. Leaders of the program areas will form part of the proposed executive advisory body to the deans.
• We have largely relied on our traditional agricultural clientele to support our requests for funding in Harrisburg. The proposed Futuring Group should play an advocacy role for the College, helping us to identify and seek out new opportunities for funding as well as new advocates. Non-traditional groups and sources of funding should be explored aggressively, in particular to obtain resources for some of the newer program areas, such as the environment, children, youth, families and health.
• We need to develop a communication strategy to communicate the value of our teaching, research and extension programs to legislators, key stakeholders, public officials, and the public at large. This strategy should be web-based at its core with printed materials derived from the web resource. Print-on-demand capabilities should be established and the expensive storage of College publications eliminated. All advances in research, teaching and extension should generate several communications products including web modifications, news releases, popular articles, radio spots and television programming. Web and publications editors as well as the College communications and marketing staff should aggressively pursue communications products. ‘Beat reporters’ should be established so that these communicators can become knowledgeable about technical issues. The communication of research results and publicizing the impact of research should be accorded greater priority in faculty evaluation and rewards, and in tenure and promotion decisions.

• Since a major source of growth in funding is through competitive grants and contracts, every effort must be made to include the full cost of research into grants (equipment, personnel etc.) consistent with federal accounting rules. Establishing areas of excellence, as proposed in the Setting Priorities section of this report, will better enable the College to develop its national and international reputation and will greatly improve our competitiveness for obtaining external funding.

5. Changing organizational structures to support priorities

Issues:
• The anticipated shortfall in base funding relative to future salary and benefit costs means that the College must either change the mix of funding for future positions or reduce the number of tenured and standing positions over time.
• Changes in organizational structure are required to achieve program priorities and to economize on the use of resources. Maintaining the current unit structure is likely to be increasingly costly and does not lend itself to the inter-disciplinary approach that is required in achieving programmatic priorities.
• Faculty and staff evaluation and resource allocation should have input from program priority leadership as well as unit administrators.

Actions:
• The high proportion of college resources tied up in salaries for tenured positions and standing appointments, limits flexibility in adjusting staffing to changing priorities and needs. One response would be to continue the recent trend of creating a higher proportion of fixed-term appointments. A second alternative would be to increase the teaching load for all faculty gradually, but to allow faculty to “buy-out” a portion of that load using money from grants and contracts. For extension, standing appointment and fixed-term appointments need to be balanced to allow for hiring excellence in key program areas.
• The group believes that the implementation of the processes for resource reallocation proposed in this report will highlight the need for a redefinition and overall reduction in the number of units in the College. The group favors the replacement of the current departmental structure by one based on “schools”.

Thus there might be a school of social sciences, plant sciences, animal sciences etc. We believe that this structure would lead to savings in administrative overhead and also foster inter-disciplinary collaboration. We suggest that a plan be developed to implement the transition to this alternative structure by the end of the current strategic planning cycle. Extension issue areas and program teams should align with these schools and where there is no alignment for priority issues areas, collaborations with other colleges in the University must be sought to provide the intellectual leadership for those programs such as in areas of family and youth, health, nutrition etc.

- As indicated above, we propose a broader adoption of the institute model for program development as is already used in the environment area. The creation of a small number of institutes, combined with the amalgamation of departments into a small number of schools will lead to a reduction in the number of administrative units in the College. We believe that this structure will be more efficient in implementing future priorities, achieving sustainability and promoting excellence.
- We believe that it is time for the College to reconsider its name. While agriculture will continue to be an important in what we do, our role is broadening far beyond agriculture. The current name of the College does not reflect this. We also believe that the name of the Penn State Agricultural Council should be reconsidered with a view to renaming this to be more inclusive of the range of activities undertaken by the College. The membership that body should continue to be broadened to reflect our expanding range of stakeholders.

Respectfully submitted,

David Blandford (co-chair)
Gary Perdew (co-chair)
Mary Jo Depp-Nestlerode
Ted Alter
Karl Girton
Roger Martell
Walt Peechatka
Ed Rajotte