

**NATIONAL AGRICULTURAL RESEARCH, EXTENSION,
EDUCATION, AND ECONOMICS ADVISORY BOARD**

MINUTES OF BOARD MEETING AND FOCUS SESSIONS

**Texas A&M University, College Station, Texas
March 28 and 29, 2012**

CONTENTS

EXECUTIVE SUMMARY2

TUESDAY, MARCH 28

ADVISORY BOARD GENERAL MEETING.....3

Introductions and Welcoming Remarks3

Board Business3

Remarks by the Chief Scientist.....4

FOCUS SESSION: Cooperative Extension – Positioning for the Next 100 Years5

REE Investment in Extension5

Cooperative Extension – The Nation’s Transformational Educators.....5

Cooperative Extension Interactive Walking Tour and Discussion6

THURSDAY, Mar 29

ADVISORY BOARD GENERAL MEETING.....7

Board Business7

ACTION ITEMS.....9

APPENDIX – Deliberations by Relevance and Adequacy Subcommittees.....10

EXECUTIVE SUMMARY

The National Agricultural Research, Extension, Education, and Economics (NAREEE) Advisory Board (“the Board”) met in public session on March 28-29 in Room 129 of the Agriculture and Life Sciences Building on the campus of Texas A&M University in College Station, Texas.

The Board heard remarks from the Chief Scientist and Under Secretary for REE on the challenges facing agriculture and on international initiatives in agricultural research, productivity and sustainability. It also heard presentations on REE’s investment in extension and on the vision and activities of the Cooperative Extension Service. This was supplemented by a “walking tour” of six learning stations featuring in-depth example of national extension activities.

The Board also spent a lot of its time in this meeting discussing plans for its congressionally mandated report on the Relevance and Adequacy of REE’s Research Portfolio. Key questions that emerged with regard to relevance included not only the *scope* of research (what scientific areas deserve more or less attention, and what new areas are likely to emerge), but also the *conduct* of the research (clarifying the priorities, increasing integration within REE, forging new partnerships). On the adequacy side of the equation, there was consensus that the *size* of the REE budget is not adequate; with regard to the available money, the central questions are whether the allocation process is fair and transparent, and whether that process advances agricultural science. A more specific question is whether the creation of NIFA has helped to rationalize the allocation of research funding, but the Board felt that it is too soon to assess NIFA’s impact.

Board members suggested a number of interesting topics for the fall 2012 meeting, including not only agency updates and Board reports but also a presentation on the International Program at NIFA and the One Health Initiative.

TUESDAY, MARCH 28

ADVISORY BOARD GENERAL MEETING

Welcome and Introductory Remarks

Jean-Mari Peltier (Chair, NAREEE) called the meeting to order at 8:15 a.m. and welcomed Board members and other participants, asking them to introduce themselves (see attached list).

Board Business

By unanimous voice votes, the Board approved the minutes of the fall 2011 meeting and the agenda for the present meeting. Peltier noted that those minutes do not contain the findings and recommendations from the focus sessions, and particularly on the impact of NASS commodity reports on grain market volatility. She suggested that the Planning Committee from that meeting prepare a report to the Secretary with any findings and recommendations on this topic. It would be appropriate for that group to work with Research, Education and Economics (REE) staff (notably Joseph Prusacki, who delivered the central presentation on commodity reports), in preparing this report. Dr. Milo Shult and former Board member Terry Wolf volunteered to help with this report.

Several other reports are under preparation for the Fall 2012 Board meeting. Dr. Steven Hamburg will work on potential disclosure by the National Archives and Records Administration (NARA) of personal information from the Census of Agriculture. Ralph Paige will try to compile materials on the question of whether the Census undercounted small minority farmers. In addition, the Senate Agriculture Committee has asked the Government Accountability Office (GAO) to investigate the issue of duplication in agricultural research; this GAO report is not due for another year. Leo Holt has recently travelled to South Africa and Chile in connection with the Citrus Disease Subcommittee; everywhere he goes he finds a great respect for and reliance on USDA science.

The Relevance and Adequacy report, which is one of the core functions of the Board, will get special attention this year, including a new emphasis on reviewing the REE research portfolio (“from 30,000 feet”) as requested by staff. Dr. Steven Daley-Laursen will chair the Relevance Subcommittee, with other Board members assisting; they will pay particular attention to whether anything is missing from the Action Plan, Strategic Plan and supporting white papers. Dr. Carrie Castille will chair the Adequacy Subcommittee, with help from Dr. June Henton and other members; they will focus on finding the best way to allocate REE’s research budget, and specifically whether the creation of the National Institute of Food and Agriculture (NIFA) has helped to rationalize the funding process for agricultural research (short- vs. long-term, formula vs. competitive, building capacity vs. advancing science, etc.).

Dr. Mary Wagner recently led a brainstorming session for the NAREEE Executive Committee and REE staff that focused on three priorities:

1. *Funding.* – The REE research budget has flat lined, and there is little likelihood of increases in the near future, let alone the doubling that has been suggested. Perhaps

instead there should be an initiative to create a USDA Foundation, similar to foundations created by and around the National Institutes of Health (NIH), with an advisory board from industry and the National Academy of Sciences and funding from corporations and philanthropic foundations.

2. *Collaboration.* – The Board should advise the Secretary to encourage and enable greater levels of cooperation and collaboration among REE grantees, REE agencies and programs, and between the public and private sectors.
3. *Communication.* – The USDA “brand name” is respected internationally, especially its overlapping networks of intra- and extramural research and extension programs. USDA needs to do a better job of telling its story to the American people.

Remarks by the Chief Scientist

Dr. Catherine Woteki (Chief Scientist and Under Secretary for REE, USDA) reported that the GAO report will focus on duplication between NIFA and ARS, and that the President's Council of Advisors on Science and Technology (PCAST) is also looking at agricultural research, but with a focus on preparedness to meet the food challenges of the United States and the world. The PCAST report is due at the end of May, before the general election cycle. The G-8 and G-20 meetings in May and June will be looking at agricultural productivity and sustainability, among other topics; there is considerable interest in the organization and coordination of agricultural research, and for a communications platform for sharing and acting on research results.

China has announced plans to invest \$475 billion in agricultural science and technology over the next decade. This dwarfs the \$2.6 billion requested for REE in the FY2013 budget, although it's not clear how fair the comparison will be. A delegation is currently in China to renew our bilateral research agreement, which includes ten specific agricultural research projects.

In response to questions, Woteki added that extension, as well as productivity and sustainability, will also be on the agenda of the G-20 meeting. Extension was also a focus in a recent conference cosponsored by the National Academy of Engineering and U.S. Institute of Peace. Woteki added that the current decentralized structure of the Cooperative Extension Service (CES) reflects the recognition by Congress that agriculture and agricultural research are local in their nature and operation. Board members agreed that Extension works best through communication, education and technology transfer at the local level, but they felt that other issues (e.g., climate change, education and opportunities for girls and women) deserved just as much attention as food security.

At this point the Board recessed so that members to attend a public lecture delivered by Woteki in honor of the 150th anniversary of the Morrill Act, “A Research Agenda for the AgriLife Center: Food and Agricultural Challenges Ahead.” The Board reconvened in two subcommittees to address the issues of relevance and adequacy, a discussion that continued through an informal working lunch.

FOCUS SESSION: COOPERATIVE EXTENSION – POSITIONING FOR THE NEXT 100 YEARS

REE Investment in Extension

Dr. Ralph Otto (Deputy Director for Food and Community Resources, NIFA, USDA) reported that total extension-related spending by NIFA amounts to about \$504 million/yr, out of a total NIFA budget of \$1.3 billion. NIFA has put a high priority on projects that address local and site-specific problems, especially when they include matching funds and collaboration. NIFA would like to see more proposals with Extension as the lead partner. Among the most important of NIFA's extension-related programs:

- EFNEP – helps limited-resource families learn more about diet and nutrition;
- EDEN – a quick-response communications program that provided vetted information on emerging threats, such as mad cow disease;
- FRTEP – provides extension agents to address the unique needs of Native American tribes and reservations (at \$3.3 million/yr, its budget is inadequate);
- RREA – about \$4 million/yr for forestry extension;
- CYFAR – highly collaborative program to assist at-risk children and families;
- HSACU – a certification program for Hispanic-serving colleges and universities;
- 4H – funded in part by Smith-Lever formula money, about half of its participants are urban or suburban children; there are now over 60,000,000 4H alumni.

Board members had several questions about the possibility of changing the formula for distribution of Smith-Lever funds (the last adjustment was in 1957), or reducing the matching requirement for 1890 land-grants, or developing a single USDA-wide definition of “rural.” One member suggested that the STEM program, designed to encourage 4H participants to enter careers in agriculture, deserves more money and attention.

Cooperative Extension – the Nation's Transformational Educators

Dr. Douglas Steele (Chairman, Committee on Organization and Policy, CES) noted that Texas is a large and diverse state, and as a consequence it has a large and diverse extension infrastructure, with over 6000 collaborative projects. But even in his home state of Montana, there are a total of eight land-grant campuses and an equally well-developed extension effort. In both Texas and Montana, the focus of all extension programs is to bring results to local users. This puts a premium on efforts to increase connectivity and access, both through broadband and other information technologies and through community-based approaches to solving local problems.

Dr. Alton Johnson (Associate Dean for Agriculture and Human Sciences, Prairie View A&M University) added that, while CES programs are tailored to local needs, their results and best practices are shared at the national level. Current priorities at Prairie View and other 1890s include alternative agriculture, farmers' markets, e-business, and after-school science, engineering and technology programs.

Both men agreed that Extension is on the front line in rural development, and that the priorities for the future should be:

- Establishing partnerships;
- Ensuring adequate funds for capacity-building;
- Increasing competitive opportunities;
- Supporting Extension as a delivery tool; and
- Communicate and market the capabilities of the CES network.

To accomplish these goals, they recommended that the board advocate for capacity funds, broader participation by REE agencies, greater emphasis on eXtension and broadband, and better communication with the American people.

In response to questions from the Board, Steele and Johnson noted that their customers don't care which agency or university addresses their problems, all they want are sound answers. Different states have used different partnership mechanisms, including fee-for-service and commissions. CES has provided valuable training assistance to private companies on the correct use of fertilizer and herbicide in horticulture; significantly, they got paid for the scientific information, not according to the amount of fertilizer sold, and their advice on herbicides was labeled "meddling" by the industry. Many younger farmers – especially large, high-dollar producers – want to get their information from Monsanto, not CES or faculty. Low-resource producers remain dependent on county agents, but when CES budgets are cut, it is the county agents that are affected first; their place is taken by private companies, if filled at all.

Several Board members suggested that other agencies are interested in doing extension and might be partners with CES. Others suggested that CES sell its expertise abroad as a kind of international agricultural consultant. Still others reported that budget shortfalls at land-grant universities have further aggravated the funding picture for extension – Smith-Allen represents a small portion of the budget (20 to 30 percent), and the schools can't use tuition money for extension, or reprogram money that's earmarked for other uses.

Cooperative Extension Interactive Walking Tour and Discussion

The Board again recessed and formed three groups for a "walking tour" of presentations on contemporary extension efforts:

- Serving Commercial Ag Producers: Operation No Fences
- Specialty Crops: Blueberries
- Sustainable Natural and Climate
- 4-H Youth Development
- Nutrition, Childhood Obesity and Food
- Rural Prosperity/Rural-Urban Interdependence: Stronger Economies Together

The electronic copies of those presentations may be obtained from the REE Advisory Board Office on request.

The Board reconvened for an informal discussion led by Dr. Jane Schuchardt (Executive Director, CES), during which Board members made the following observations about the six learning sessions:

- On Indian reservations and in other low-resource communities, research is an extractive activity that leaves nothing behind and doesn't improve the skills of local residents.
- CES has several projects under way in developing countries (e.g. Mali) in collaboration with NGOs or the Peace Corps. Foreign clients are amazed that CES assistance is free.
- There seems to be an opportunity to commercialize CES as a national or international platform with local specifics and focus.
- Many projects are applicable to individual homeowners or developing countries but not to commercial buildings in the United States.
- Sometimes the resource needs involve nothing more than a vehicle to get students to and from after-school activities.
- Preparedness projects can save lives and money in emergencies. Why is CES not the go-to agency for emergency preparedness training? Is it well connected with FEMA? Perhaps CES can organize a nationwide, on-call "disaster corps" of trained responders for rural communities.
- The extension model has been copied by other federal agencies, notably Health and Human Services.
- CES – indeed, REE and even USDA – need to do a better job of telling their success stories.
- More than anything, the customer – consumer, teacher, local government – needs a clear path to reliable information. eXtension seeks to provide this function and prides itself on its "discoverability." The key is *curation*, in order to keep the information fresh and counteract bad information.
- NIFA, NIEHS and NIH need to collaborate on the health impacts of epigenetics.
- CES is open to information and answers from non-land-grant schools, but both CES and the land-grants need to improve their linkages with these other colleges and universities.

Schuchart noted that many of these ideas are implicit or explicit in the priorities outlined in the REE action plan. CES's Finance Committee is developing a "national leadership council" made up of industry leaders who can advise them on how to encourage partnerships and solicit money. CES office and agents are also involved in a number of NIFA proposals and grants.

The meeting adjourned following an evening reception at which welcoming remarks were given by Dr. R. Bowen Loftin (President, Texas A&M University), and Dr. Mark A. Hussey (Vice Chancellor and Dean for Agriculture and Life Sciences, Texas A&M University).

There were no public comments.

THURSDAY, MARCH 29

ADVISORY BOARD GENERAL MEETING

Board Business

Dr. Ed Knipling (Director, ARS, USDA) reported on a study of capital investment in ARS labs that is being prepared for the Secretary and the Congressional Appropriations Committees. The

report, which should be delivered in 10-14 days, sets forth the criteria for evaluating needed investments over the next 10 years, along with a list of about 20 priorities; it does not ask for funding at this time. ARS took a 4-percent cut in FY2012 but expects a slight increase in FY2013.

In response to questions, Knipling said that the issue in capital investment is whether USDA will have the laboratory infrastructure to accomplish the research it needs to do. Much the same can be said of personnel; ARS is beginning another round of peer review for intramural scientist, a *prospective* review of the research they plan to pursue. As in the past, Board members are invited to sit in on review sections that are of interest to them, and Knipling will provide a schedule of which national programs are to be reviewed this year. The first will be National Program 216 (Agricultural System Competitiveness and Sustainability) which will meet in October in Beltsville. Several Board members reported that they were impressed with the rigor and thoroughness of the peer review sections they have observed in the past.

At this point the Board recessed into two subcommittees to consider the issues to be addressed in the Relevance and Adequacy report. It reconvened in plenary session later in the morning and heard summaries from the subcommittee chairs.

Dr. Steven Daley-Laursen reported that the Relevance Subcommittee had identified five topics to serve as organizing principles for their report:

1. What's missing from the goals?
2. USDA and others (partnerships);
3. Integration of research within REE;
4. Clarify the goals;
5. New scientific foci.

Daley-Laursen believes that the subcommittee may want to hold listening sessions with other agencies; it will also want to be kept abreast of developments at G-8, G-20, China, and the GAO and PCAST reviews. They believe it important to state the goals in ways that facilitate measurement and assessment; they also think that USDA needs to identify its core competencies and justify the USDA role in each of the priority areas. The subcommittee's timeline will match that of the Farm Bill.

Dr. Carrie Castille reported a consensus among the Adequacy Subcommittee that so far as funding is concerned, the REE budget is not adequate. That being said, however, there are other questions that can be asked about how the available budget is being spent:

- Does it promote good science?
- Is the process fair and transparent?
- Does REE do a good job of communicating the quality of the science it funds and the fairness of the funding process?

On the more specific question of whether the creation of NIFA has served to rationalize REE's research portfolio, or to increase the complementarity between intramural and extramural funding, the subcommittee felt that it was too soon to form an opinion. There has been only one round of awards, after all, and there have been three different directors – NIFA is still evolving.

In its next teleconference, the subcommittee will address the question of whether REE funding serves to advance agricultural science. One member added that the funding process needs to do more than be fair and open; it also needs to reflect the diversity of the research community and help new scientists and institutions become players in the research enterprise.

In the discussion that followed, it became clear that *integration and competitiveness* are important concepts. Certainly there has been a lot of attention to the integration of intra- and extramural research, integration with partners, integration across disciplines and goals and mission areas. Competitiveness – the question of whether all this serves to advance agricultural science – is not so clear. In fact it depends on where you stand, because the process inevitably has winners and losers. For example, several categories disappeared in the first round of NIFA grants, including food science and medical etymology (the latter survives only as “pests”). Several members said that it was important not to lose these *activities* just because we’ve renamed the *categories*; it’s important to maintain the visibility of these research functions, lest disease-carrying ticks disappear into basic research.

Board members agreed that these components of the Relevance and Adequacy report should be developed quickly if they are to be ready for Congress in time to influence this year’s Farm Bill. That will mean an outline as quickly as possible, initial drafts in early May, and a final report not later than early June. REE staff will assist the Executive Committee in compiling and reviewing drafts and assembling the final report.

At its Fall 2012 meeting, the Board will have a number of its own reports to review – not just R&A but also Renewable Energy, Specialty Crops, and the impacts of NASS commodity reports. A working group on Extension would be responsible for preparing a report on the outcomes/recommendation/deliberations of this meeting. Those sub-committee members would include: Dr. Milo Shult; Rita Green; Chad Waukechon; and Dr. Robert Taylor. Members asked that the meeting also include one or more of the following topics:

- International Center at NIFA (goals, functions, vision);
- Agency updates (omitted in this meeting with the exception of ARS);
- A discussion of what is meant by the use of “more intensive agriculture” and “transformational agriculture” in recent discussions;
- A short presentation on the One Health Initiative, an international collaboration across disciplines to achieve optimal health for people, animals and the environment.

During the public comment period, Renewable Energy Committee Chair Carol Keiser-Long asked members to investigate the Life-Cycle Analysis (LCA) Digital Commons Project at the National Agriculture Library (<http://www.lcacommons.gov>). LCA has enormous implications for the entire food sector, not just because of the huge transportation component in food costs. Other nations are beginning to require LCA in their food sectors.

The meeting adjourned at 12:00 noon.

ACTION ITEMS

- Ralph Paige will compile and circulate materials on the undercount of small minority farmers by the Census of Agriculture.
- REE staff will set up the necessary listserves etc. for developing drafts of the Relevance and Adequacy report.

APPENDICES – SUMMARIES OF RELEVANCE AND ADEQUACY DISCUSSIONS

* * * * *

RELEVANCY AND ADEQUACY SUBCOMMITTEES

In its November 2011 meeting, the Board divided the Relevance and Adequacy Committee into two sub-committees and indicated that the R&A review and report – one of the Board’s legislatively mandated functions -- would be a “core” function of the Board in FY2012. During its March 2012 meeting, the Board convened itself as a committee of the whole and then recessed into two subcommittee meetings.

RELEVANCY SUBCOMMITTEE

The following is a summary of the deliberations of the Relevancy Subcommittee, chaired by Dr. Steven Daley-Laursen.

Structure of the Relevancy and Adequacy Committee

The Relevancy and Adequacy Committee of the Board will now work in two sub-committees, one on Relevancy (chaired by Dr. Daley-Laursen) and a second on Adequacy (chaired by Dr. Carrie Castille). Relevancy and Adequacy is the “bedrock” or core duty of the Board. NAREEE is quasi-independent of the USDA and Congress and can serve as an effective link between the two.

Relevancy Subcommittee members

James Parsons, Dr. Chandra Reddy, Dr. Adriana Campa, Dr. Charles Boyer, Dr. Steven Daley-Laursen (chair), Dr. Cyril Clarke, James Goodman, Dr. Nancy Childs, Dr. Dawn Thilmany and Jeanette Ishii (absent). Guests March 29th: Dr. Bo Beaulieu, and Kristine Stepenuck. Dr. Daley-Laursen will work with Rob Burk, Dr. Carrie Castille, and Jean-Mari Peltier to identify additional members that should be added to the committee to address any real or perceived gaps.

Charge to the Relevancy Subcommittee

The charge to the Relevancy sub-committee is to “consider the priorities of the REE agencies and how relevant they are to the needs of the nation and world.” The group has been directed to look at the Action Plan, and possibly the USDA Office of the Chief Scientist’s White Papers and to consider if they are relevant to current needs. Under Secretary Woteki also mentioned the importance of guiding principles of USDA REE and her framework for REE.

Relevancy Subcommittee Discussions

Dr. Daley-Laursen: Under Secretary Woteki used the term “first principles”. First principles are like the elements of a constitution, the original founding principles on which the USDA was

founded. The Relevancy subcommittee is being asked to weigh in on whether these first principles are still relevant. Dr. Woteki is asking the group to say “these” are the first principles to focus on. Perhaps, a preamble to the Action Plan could accomplish this.

Dr. Daley-Laursen: Charged the group to identify “what is missing from the Action Plan.” Give consideration to these gaps and elucidate others:

- The definitions of rural and metropolitan;
- Fields of proteomics, genomics, etc;
- Applications of food technology;
- Food waste;
- Education;
- Integration of education/research;
- The need for data management;
- connection between animal health and human health – the concept of “one health”;
- Formalization of partnerships; and
- Disaster response.

Dr. Chandra Reddy: The Action Plan addresses all consumer issues. How much of the research agenda related to agriculture should be driven by producers, and how much by consumers?

Dr. Cyril Clarke: A broad perspective was captured in the Action Plan. Is the Action Plan “too broad?” Is it so broad that it overlaps and dilutes the central missions that can be achieved. Is the plan so unfocused that it will be unachievable? Does the breadth of the agenda precludes sufficient focus on the core functions and subject areas of USDA?

Dr. Charles Boyer: The Plan is broad because it is an attempt to address the grand societal needs. The real dilemma is delivery of programs on the ground.

Dr. Chandra Reddy: First principles give the Department a chance to assert itself as a scientific entity.

Dr. Charles Boyer: In the past when portions of society felt that a need was being ignored earmarks were created to address those gaps.

Dr. Daley-Laursen: The following materials/topics of study are relevant to the work of the Relevancy sub-committee:

- USDA first principles (request from Dr. Woteki);
- GAO study of duplication in agricultural research (underway);
- The President’s Council on Science and Technology’s review of USDA science (underway);
- G8/G20 studies related to the USDA’s agenda (underway);
- OSTP studies of China/U.S. relations relevant to agricultural trade and production (underway);
- The ARS Capital Investment plan (in Departmental review. Senate Ag markup rejects closings);
- The NIFA evaluation plan (underway).

Dr. Cyril Clarke: Recommends that the Board affirm that “in general” the Action Plan document is on target. Some aspects or elements might not be emphasized sufficiently. The group should take a general look and make recommendations for further review. The major topics were good, and well thought out.

Dr. Dawn Thilmany: Should we look at the plan from a 1,000 foot level – at whether all of the necessary topics are covered; or the 100 foot level – at how the topics were identified?

Dr. Cyril Clarke: Still trying to figure out how Goals 4, 6, and 7 fit into the specific mission area, or whether they would cross over to other Departments. USDA can only tackle some of the problems on its own – it’s not clear how USDA plans to do its own part on issues and collaborate with others to address the full breadth of issues.

Dr. Adriana Campa: The document takes a “businesslike approach.” On goal 4, there is a mandate to conduct the WIC program. Obesity is a nutrition problem. Through the WIC program mothers have been trained to care for their children. Dr. Cyril Clarke: This is an important discussion, and its inclusion in the Action Plan is staking a claim that this is USDA’s territory.

Drs. Dawn Thilmany and Daley-Laursen: Extension needs to be better integrated. Explicit statements on integration with extension were not mentioned in the white papers, but through the NIFA RFA process it is made clear that 1/3 of the work/support should go towards extension. This should be clarified in the White Papers. Dr. Chandra Reddy: Extension is traditional in its outreach. Outreach must be changed as we change the groups we are working with.

Dr. Daley-Laursen: Action Plan provides a good explanation of the context of the science but partnerships need to be more explicitly expressed. Some of them are core USDA functions, while others are best achieved through formal collaborations and leverage. Dr. Chandra Reddy: The Action Plan reflects the key science focus, but it doesn’t explicitly lay out how we are working with other agencies. Jim Parsons: The document lists many of the other Department/agencies that are being worked with, but there is little additional information on the nature of collaboration and links.

Dr. Adriana Campa: The disaster response information presented to the Board by Dr. Monty Dozier and others while at the meeting was very valuable.

Jim Parsons: noted the point made in goal 6, and Dr. Dawn Thilmany suggested that goal 6 might need to be split out to include Extension. She felt it could be more integrated when it’s not its own sub-objective.

Dr. Chandra Reddy: Nationally, agricultural enrollment was declining.

Dr. Cyril Clarke: There is a need to identify core USDA values. When developing a document like this the goals need to be set, measurable outcomes need to be established. What is the USDA mandate and how is REE meeting those goals. Dr. Dawn Thilmany: Clarify the

difference between 1) the core historic strength of USDA; and 2) places where the Department should be linking with others.

Dr. Adriana Campa: Do not dilute the goals.

Dr. Cyril Clarke: There is a need for cleaner more focused goals that target measurable outcomes.

Dr. Dawn Thilmany: State the agency's core competencies, relative to other agencies. Clear justifications needed to be made when the Department treads into areas which are non tradition areas of core competency.

Dr. Chandra Reddy: The group should give guidance on how to improve connections with other agencies, not just tell them to do it.

James Goodman: Tap into information collected through the listening sessions held by other Departments with stakeholders/constituents which had not traditionally interacted with the USDA. Dr. Cyril Clarke: Find out what other Departments are doing to bring in stakeholders. Dr. Dawn Thilmany questioned who would need to facilitate this interlink with other Departments.

Drs. Chandra Reddy and Cyril Clarke: The grand challenges outlined in the Action Plan were originally put together by the Academy of Sciences; non-USDA, Departments/Agencies. On topics like food safety we can't truly understand the whole picture without bringing in the FDA. Dr. Adriana Campa: The largest "food safety" program is managed by the USDA.

Jim Parsons: Important to know how the USDA measures success. Need more elaboration within each goal on whether or not the goals are being met.

Dr. Dawn Thilmany: "Technical efficiency" is often reported as a success, but this ignores other indicators of success or other issues.

Dr. Adriana Campa: The Action Plan is a communication document. What is meant by the word "agency." Does it refer internally or externally (i.e. ARS is an agency, EPA is an agency).

Group. Domestic versus international needs. How this topic relates to "one health", and potential conflicts in the Action Plan related to domestic and international focus (i.e. is the goal to focus on feeding the world with American agriculture, or empowering the world to feed itself). Dr. Adriana Campa: the focus of the Action Plan clearly stated that the goal was to empower the world to feed itself. Dr. Cyril Clarke noted the necessity to think globally, and noted the local imperative.

One possible format for determining if the Action Plan addresses relevant issues:

Level of integration & scope: Does the current Action Plan express the concept of "one health"

Tools (Vehicles): G8/G20 Reports, China, OSTP

Points Made: Government working with other countries to identify a global agricultural focus.

Identifying goals that could bridge international barriers.

Should language be altered?

1. Relate animal health to public health
2. Professions/disciplines
3. Think globally to effect locally

Dr. Dawn Thilmany: Outcomes are important. Action plan goals should address measurable outcomes. Dr. Cyril Clarke: Cross cutting goals should be identified, and some outcomes may not be quantitative. Dr. Dawn Thilmany: CAPs were getting better at measuring outcomes. No project should be based on technical efficiency alone. Audacious goals have been mapped, but what can we do about/with them.

Next Steps:

Dr. Steven Daley-Laursen will work with Jean-Mari Peltier, Dr. Carrie Castille, and Rob Burk to create and outline of work. The Relevancy sub-committee will collect information, do its work and communicate its findings/recommendations.

ADEQUACY SUBCOMMITTEE

The following is a summary of the deliberations of the Adequacy Subcommittee, chaired by Dr. Carrie Castille.

Dr. June Henton reported that she had drafted and redrafted a letter to REE on this topic, but the current status of that letter is uncertain. REE shows greater interest in a new and slightly different question, namely does the shift in competitive funding from NRI to AFRI achieve the intended goals. Previous Board feedback on this and related questions has been cited as evidence that the Board is too close to the specifics (“lost in the weeds”) and needs to take a more strategic (“30,000-foot”) overview. Dr. Carrie Castille pointed out that this new charge builds on the prior work of the R&A Committee, and that REE is particularly interested in identifying and addressing *duplication*, whether at the project, program or institutional level. Castille offered several propositions as a starting point for discussion:

- Competition is good, but regional cooperation increases efficiency.
- Research, like agriculture, is place-specific, but local research can have global impacts.
- There is a need for regional collaboration on best practices.

Dr. Steven Hamburg cited a recent REE statement that 60 percent of the proposals received by AFRI were “worthy of funding.” He found this statement opaque at best and called for a clearer explanation of the grant review process. Dr. Mark Bender added that while the winners may have liked the process, the losers have raised a number of questions about *transparency*: how priorities were set, how proposals were reviewed, how funding levels were determined, and whether the rules now in place are clear and fair. Above all, the results must be communicated more clearly in order to assure participants (and the Board) of the adequacy of the process. Ralph Paige added that, to ensure fairness, the results of the competition should reflect the diversity of the applicants, so long as the science is good. Perhaps what’s needed is some version of NSF’s EPSCOR program, which was designed to strengthen and leverage the research infrastructure in states and regions that have not traditionally participated in the agricultural research enterprise.

As a summary of these deliberations, Carrie Castille proposed the following points as the necessary ingredients for an adequate competitive funding process:

- It must ensure and promote good science.
- It should be fair and clear, and above all well communicated.
- It should reflect diversity and build capacity.

When it reconvened the following morning, the subcommittee set about answering a slightly different set of questions:

- Has the creation of NIFA improved the complementarity of intra- and extramural research funded by USDA?
- Does the current “portfolio” of research achieve the correct balance (1) between short- and long-term research and (2) among formula, capacity and competitive formats?
- Does the current USDA research portfolio advance science?

There was general agreement that it is too soon to answer these questions definitively. However, some of the early indicators are some encouraging. For example, all three formats have established robust review processes, and there is a notable increase in the emphasis (or at least discussion) of collaborative approaches. There appears to be consensus that some major challenges will require collaboration. And the first round of AFRI grants has been, in and of itself, a big achievement.

At the same time, however, there is a feeling that the same AFRI grants have shifted a relatively competitive funding (a relatively limited amount in the first place) in the direction of “megaprojects,” to the detriment of the kind of “small science” that has made NIH successful. More importantly, however, NIFA is now awaiting confirmation of the third director since its creation, and this rapid turnover has put the entire organization in flux, as has the announcement of a year-long GAO review of stakeholder input into the design of NIFA. The Board should leave that retrospective topic to GAO and instead address more prospective questions. For example, the Board could usefully ask for an analysis of how the first round of AFRI grants changed the disciplinary pattern in the distribution of competitive grant funding from the last round of NRI grants.

The same applies to the more basic question of complementarity. It is too soon to say whether the establishment of NIFA or the shift to AFRI has had the effect of (1) bridging gaps in the REE

research portfolio, or (2) strengthening the competitiveness of previously disadvantaged researchers. But it is not too soon to be asking the questions, and it might be useful for the Board to hold listening sessions on these and related topics, such as the transaction costs of required collaboration for the smallest players.

Chad Waukechon reported that AFRI has definitely helped the 1994s, who were previously disadvantaged, but he added that a better question is whether the needs of the nation are better addressed through AFRI, with the 1994s as an equal partner. Certainly it would be useful to ask REE how many grants (and dollars) in the first round of AFRI funding have gone to “collaborative” projects. The same questions could also be asked about intramural and formula research funding. These questions would be in keeping with the Board’s previous recommendations that REE adopt a “portfolio approach” to optimize its research portfolio.

This raised the question of integration, as opposed to complementarity, in REE funding. Once again it may be too early to give a definitive answer, but several members agreed that the creation of NIFA, in and of itself, doesn’t give REE the magical ability to achieve this ideal. The same goes for the related question of whether the creation of NIFA and AFRI serve to advance agricultural science – it’s just too soon to know. Certainly both are topics on which the Board will want to consult with the new director of NIFA, once he is confirmed.

In the end, then, it turns out that the question of adequacy of REE research funding is comprised of several subquestions, each of which must be addressed separately. The most basic subquestion, of course, is whether there is an adequate amount of funding, to which the Board’s answer has been and continues to be an emphatic “no” – the REE budget is inadequate to pursue all of the research needed to address the nation’s needs, and that funding should probably be doubled, as soon as possible. On all of the lesser subquestions that this subcommittee was asked to address –

- Has the shift from NRI to AFRI achieved the intended goals?
- Has does the creation of NIFA improved the complementarity of intra- and extramural research funded by USDA?
- Does the current “portfolio” of research achieve the correct balance (1) between short- and long-term research and (2) among formula, capacity and competitive formats?
- Does the current USDA research portfolio advance science?

– the answer is the same: it’s too soon to know for sure, and there are early indicators that point in both directions. AFRI does seem to have encouraged integration, at least at the local level, and NIFA seems to have responded to stakeholder needs, although it remains to be seen whether all stakeholders got an equal voice. A great deal could be learned by asking the larger community of scientists, scholars and researchers a series of simple question: who went after AFRI money, who were the winners, who the losers (early indications are that food science and food processing were losers), and did the results advance agricultural science and/or address emerging national needs?

In her summary of these deliberations to the full board, Carrie Castille emphasized that the questions to be addressed included not only (1) the complementarity and integration of the REE research portfolio, but also (2) the fairness, transparency and communication of its review process, as well as (3) whether that process reflects the diversity of its participants. In an

important sense, these are all components of a larger question, namely (4) are the process and portfolio based on good science, and do the results advance agricultural science. And then there is a final question, underlying and unspoken: (5) is there enough money?

The subcommittee identified several issues on which it plans to ask REE for more data, and several topics on which it would be useful for the Board to convene regional listening sessions:

- Analysis of how the first round of AFRI grants changed the disciplinary pattern in the distribution of competitive grant funding?
- How many grants (and dollars) in the first round of AFRI funding went to “collaborative” projects?
- Did the first round of AFRI funding effect of (1) bridging gaps in the REE research portfolio, or (2) strengthening the competitiveness of previously disadvantaged researchers?
- Does competitive research at REE reflect the diversity of the participants?
- Does collaboration impose unacceptable transaction costs on the smallest players?
- Who went after AFRI money, who were the winners, who the, and did the results advance agricultural science and/or address emerging national needs?
- Does the creation of NIFA and AFRI serve to advance agricultural science?

In its next meeting or teleconference, the Adequacy Subcommittee will begin to address the last question.