





University of Nebraska-Lincoln
School of Natural Resources

Preliminary Report of
Institutional Review



General Observations

- School fosters and values an interdisciplinary approach to natural resources research, education and extension.
- Strong intellectual capacity in the faculty in the fields of applied climate, applied ecology, GI Science, remote sensing and water science.
- Effective leadership in organizing the school to achieve its goals and mission.
- Overall morale appears high with good buy-in to the proposed vision and mission of the school.



General Observations

- The facilities are excellent and well suited to promote the interdisciplinary research objectives of the school.
- Progress towards integration is good; the structures are in place to further develop collaborative programs.
- Centers provide a model of engagement with key stakeholders. The centers are much more clear on their function and outcomes and have defined their outreach missions.
- Other components of the school have to develop their best practices for engagement with stakeholders.

General Observations

- There is a need to be more flexible with the apportionment for each individual's research, teaching and extension assignments to meet the school's needs.
- Scholarly service is hard to distinguish from extension.
- Need to be more strategic about deciding how and why to grow. Achieve balance and quality before growth for its own sake. Growth should be consistent with the primary mission of the school as part of the larger land-grant institution of Nebraska.
- Focusing on credit hours is not a very good metric of excellence and should be used more appropriately.

Emerging Issues

- The identified issues are broad but they do provide a structure for building collaborative questions and proposals.
- Recommend that the identified issues be converted into a set of implementable programs/projects and not be a classification system or a set of aspirations.
- Take advantage of Nebraska's unique attributes such as the climate gradient, groundwater/surface water management issues and the schools professional interest in adaptive management.
- Research, education and outreach must be incorporated into all program areas.

Climate Variability and Change

- There is expertise in climate variability but some limitations in capacity in dealing with climate change.
- Further define the role of the school in this topic area; do you want to focus primarily on drought, or do you want to be a player in climate change science, adaptation, modeling, agriculture and climate change, etc?

Water Resources Quality and Quantity

- Natural resources district water management plans are a great opportunity to engage in interdisciplinary conversations that cut across all of the theme areas, for example survey, water management and policy, climate change, etc.
- There is currently no engagement in the water management area within the school. Most water use is in the agricultural sector, and there appears to be little engagement with this sector
- Water science program needs to be strengthened through better integration with the school and engagement with students should be a higher priority.

Ecological Challenges

- Applied Ecology is an incredibly successful program and capable of addressing this emerging issue.
- The Fish and Wildlife Coop unit is a big bonus to the school, collaborative efforts are excellent and the IGERT funding is a major coup.
- Lessons learned from the success of this program should be translated to other parts of the school.
- Consider limits on students in this program and increase the quality of the students.

Human-Environment Interactions

- As presented, this issue focuses primarily on enhancing stakeholder engagement and delivery of applications. This should be a component of all of the research areas, needs to be fully integrated.
- Recommend that this issue be more fully developed as an intellectual theme with appropriate capacity in the relevant social sciences to address issues like adaptation to climate change in the context of multiple stressors.
- The inclusion of the Geography Department provides an opportunity to fully explore the human-environment interface, but the opportunity to pursue this may depend on new hires.

Natural Resources Education

- As presented, this is an essential component of the school mission and not a true emerging issue.
- It can be developed as a real thematic area for research, education and extension programs and is closely related to a true study of Human and Environment Interactions.

Faculty

- Collaboration efforts seem excellent, few barriers with other units outside the school.
- Could expand collaboration into the student experience and encourage, for example, minors outside of the school.
- Linkage of the faculty areas and emerging issue areas needs to be developed. The faculty areas may be more useful as building blocks in terms of organizing a large thematic program.
- GIScience and Remote Sensing could be one faculty area; and human dimensions a separate program. The people in these groups may or may not be Geographers. Geography program provides another path to human environment interactions .

Staff

- Generally very high morale and support for mission.
- There is a need to enhance communication between the staff and the top levels of administration.
- Top level administrators should provide support for dealing with tough administrative issues.
- Most staff are on soft money. This causes additional stress about job security and may require extra management attention.
- Suggestion box would be a good idea.
- Encourage social interaction for all staff.

Students

- Students generally very pleased with their programs, but some areas do not have student associations.
- They were very happy with their advising situation.
- Recruiter and adviser also excellent.

Research Programs

- A lot of the internal collaboration is already focused on raising external support. More opportunities could come from broader participation across school.
- Choose compelling problems that relate to Nebraska's climate, geography and geology and market the idea rather than wait for calls for proposals.
- Incentives should be explored to encourage collaborative grant writing especially for those with smaller research FTE.
- These are early days in the integration effort, lots of opportunities lie ahead.
- Engagement of students, post docs and young faculty in innovative, collaborative research provides multiple opportunities - use this resource.

Teaching

- Need to find a way to match the teaching FTEs to needs; it is artificially constrained at the moment.
- Need to create a culture where people are working together to support teaching programs.
- Undergraduate curriculum needs evaluation - too many options with few students;
- The joint grad-undergrad courses appear to be problematic - no differentiation between expectations for the two levels, dragging down the grad program
- Recommend increasing quantitative rigor in fish and wildlife.

Graduate Education Programs

- Maintain the Natural Resources and Geography degrees with multiple specializations.
- Good that students are not required to have specializations.
- Recommend not creating more specializations; instead recommend combining some of specialization areas
- Recommend that the Geography graduate degrees develop specialization options.
- Recommend that the Masters program have a core set of courses that are negotiated with faculty advisors; perhaps one in climate, one in ecology and one in human dimensions and one in quantitative methods from a list

Extension and Outreach Programs

- Need to develop a forward looking model for extension in the school. Currently the approach to extension is very limited and could be more focused on human dimensions, building collaborations and policy analysis and development.
- Extension is so spread out that it is less effective than it should be.

Survey Programs

- The role of the Conservation and Survey Division in the university needs to be more clearly defined if this critical activity is to be maintained. Two questions need to be asked; 1) What does the state lose if they don't have a survey; 2) What should a survey be doing in Nebraska if it were properly supported? Ecology, water and climate all need a survey base. Suggest exploration of a connection with the GIS group.
- There is a need to proactively translate data into information and service. This is the area where survey programs can fully develop.

Survey Programs

- There needs to be more research integrated into the programs in this service. Research is an important component that needs to be enhanced in the extension, outreach and survey functions of the school.
- Consider different funding models, including more sources of external funding to expand the program and target it to the needs of stakeholders.

Centers and Coop Units

- Have clear goals and outcomes including well developed extension and outreach activities.
- The centers integrate the school's functions in a vertical way at small cost to the state budget.
- Centers have developed an identity that their faculty and staff promote and work cohesively together for.
- Can serve as building blocks for research projects related to the emerging issues identified by the school.
- The school should look to providing some base support for the kinds of activities that the centers provide, strengthening the school's capacity to address the needs of Nebraska.

Administration

- Current internal structure seems to be working well; it is on a solid track and needs time to mature.
- Recommend to do an internal SNR evaluation 3 years from now.
- Communication with staff and students through a school newsletter or bulletin is recommended.

Facilities


- Teaching labs are superb, great computer capacity, lots of additional sites and equipment.
- Current space could be used more efficiently.
- Evaluate safety issues at night.
- Energy savings, such as motion detectors in main foyer a good effort. Look for other energy saving measures.

General Comments

- Geography integration going well in GISciences and remote sensing, but need to develop a strategy for building human-environment interactions.
- International research should focus on finding solutions that help Nebraska, foster professional development and enhance the reputation of the school. It is important for students and faculty to develop more international opportunities.
- Strongest interdisciplinary strength is in water science.
- UCARE is an excellent program that the school should take advantage of.

General Recommendations

- Work to address gender and ethnicity issues in faculty composition and leadership.
- Form networks within and outside the University to bring in other disciplines that can strengthen the potential to bring in grants.
- External advisory committee should meet with a broader group of administrators, center staff and faculty and be more informed about the issues that the school faces; the percentage of members who are alumni seems excessive



General Recommendations

- Take greater advantage of the interest of stakeholders and advisory board members, state and federal agencies: they are all willing and ready for greater engagement (funding, teaching, internships, collaborative projects)
- Keep track of your alumni and use them for support of various kinds.
- Document the inflow of information into the school and not just out from the school.
- Work on developing the metrics of success collectively.



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THANK YOU
Don Wilhite
Administrative Leaders
Faculty
Staff
Students
