A Planning Guide For Tribal College Land Grant Programs

First Americans Land-grant Colleges & Organization Network (FALCON)

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First Edition

A PLANNING GUIDE FOR
TRIBAL COLLEGE LAND GRANT PROGRAMS

Introduction

This guide is the product of ongoing discussions between tribal college and university (the 1994 land grant institutions) land grant administrators, USDA, FALCON, and the North Central Regional Center for Rural Development. With limited funding, staffing and time resources, 1994 administrators are being challenged to "think strategically" about how their programs are designed and implemented. At a conceptual level, most administrators know that this means aligning program goals with the institution's goals and being innovative and resourceful in designing and implementing programs. Yet, at a practical level, we lack guidance on the step-by-step processes needed to accomplish the strategic planning of land grant programs. The guide, and its accompanying materials, was created to fill that gap.

At a roundtable discussion on the topic of strategic planning during the 2006 FALCON conference, a group of approximately 30 1994 land grant administrators discussed the best approach to land grant planning. The consensus was that land grant planning must be consistent and supportive of the 1994 institution's strategic plan, and not attempt to duplicate it. Furthermore, many participants found that a logic model was a useful tool to ensure that program designs were compatible with the institution's strategic goals. The general approach was to start with the institution's strategic goals, design land grant programs backward from those goals, and then implement the programs forward.

What is "land grant"?

The term "land grant" defines a set of colleges and universities that Congress has designated as having a formal relationship with the Federal government through the U.S. Department of Agriculture (USDA), and with a mandate to provide practical education in the agricultural and mechanical arts (and associated disciplines). Congress first bestowed land grant status to one educational institution per state under the initial land grant legislation, the First Morrill Act of 1862. Under the terms of that Act, grants of land were given to institutions to fund their operations, so that is where the term "land grant" originated. Today, there is one university in each state that is authorized under the 1862 Act, and they are collectively known as the "1862 land grant institutions."

The ideals of the First Morrill Act and land grant status were to provide practical education to those who did not otherwise have access to higher education. At

that time, higher education was primarily a study of philosophy and the classics for society's elite class. Hence, the act sought to "promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."[1]

After the Civil War, the Second Morrill Act of 1890 was passed that required land grant institutions to accept individuals of all races and colors. Because the Southern States at that time were operating under a "separate but equal" racial policy, those states chose to create a second set of land grant universities that would serve their African-American populations. One of these universities was located in each of the 17 southern states, except Alabama which hosted Tuskegee and Alabama A&M. These universities are known as Historically Black Colleges and Universities (HBCUs), and also as the "1890 land grant institutions."

In the 1960s through the 80s, another group of higher education institutions from the U.S. territories and the District of Columbia were awarded land grant status by Congress. These institutions are located in places such as Guam, Puerto Rico, and the Virgin Islands, and are collectively referred to as the "1862 Insular land grant institutions," but the 1862 is often dropped in favor of simply the "Insular land grants."

- *Montana State University, the University of Wisconsin, and New Mexico State University are "1862 land grant institutions."*
- *Prairie View A&M in Texas, West Virginia State University, and Tuskegee University are "1890 land grant institutions."*
- *The University of Guam, University of Puerto Rico, and the University of the District of Columbia are "Insular land grant institutions."*
- *Northwest Indian College in the State of Washington, Dine College in Arizona, and Saginaw Bay Community College are "1994 land grant institutions."*

After much hard work by the American Indian Higher Education Consortium (AIHEC), tribal colleges and universities (TCUs) were given Congressional land grant status under the Equity in Educational Land-Grant Status Act of 1994. At the time, the 29 TCUs in existence were covered under the Act. Since then four additional TCUs have received land grant status, while one has gone out of operation, for a current total in 2007 of 32 land grant TCUs. These land grant TCUs are collectively known as the "1994 land grant institutions," or "1994 institutions," or simply, "the 1994s."

Land grant status provided the 1994s access to federal funding through USDA in five major program areas:

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[1] For a comprehensive history of the land grant system, see *Reclaiming a Lost Heritage: Land-Grant & Other Higher Education Initiatives for the Twenty-first Century*, by John R. Campbell, 1998, Michigan State University Press.

1) Instead of land grants, an endowment fund was established in 1996 where the 1994s would receive the interest accrued annually;
2) in 1996, an Equity grant was implemented to support instructional activities at the 1994s;
3) in 1997, an Extension grant was implemented to support community outreach at the 1994s;
4) an Institutional Capacity-building grant was authorized to support facilities construction (but it has never been funded); and
5) in 2000, a Research grant program was implemented to support research projects at the 1994s.

Generally speaking, land grant programs are categorized into three broad areas of activity: teaching, extension, and research. These categories are partly an artifact of a history of land grant legislation and funding, where the Hatch Act of 1887 providing research funding and the Smith-Lever Act of 1914 provided extension funding. Likewise, most 1994 land grant programs have evolved into those three functional areas because of how federal funding has become available.

In summary, the land grant system was created with the goal of providing practical education to all peoples of various races and social classes. It has become a powerful and diverse collection of colleges and universities with a Congressional mandate and a formal relationship with the federal government through USDA. The 1994s are the most recent members of the land grant system, and their funding provides support for teaching, extension and research activities.

> *Land grant is:*
>
> - *Practical education for <u>all</u> people*
> - *Diverse group of colleges and universities*
> - *Congressionally-mandated and federally-supported*
> - *Programs in Teaching, Extension and Research*

What is "tribal" land grant?

While there has been much discussion among the 1994s concerning the definition of a tribal version of a land grant mission, there has been little movement to develop a consensus definition. Perhaps this is because the 1994s, and the tribal nations that they serve, are a heterogeneous group with diverse characteristics and needs. Yet, these discussions have proved fruitful in identifying common goals and needs, which can then be used to promote the growth of land grant programs at all the 1994s.

An important early discussion on a tribal land grant definition was a 1996 paper written by Phil Baird, who is now Dean of Academics at United Tribes Technical College. The concept paper, *What is a Tribal Land Grant College?,* highlighted

the fundamental characteristics of the 1994s that constitute a uniquely "tribal" land grant institution.[2] Baird noted that tribes' sovereignty status and their own land base gave them (and the federal government) a special justification and responsibility to use land grant status. No other land grant group was chartered by sovereign nations with their own land base.

As the 1994s began to define their land grant role, Baird stressed the importance of linking land grant programming with the TCU's overall mission,

> The guiding philosophies and purposes of a Tribal college or university are found in its mission statement. As a Tribal land grant institution, the mission statement will need to be looked at to assess its appropriateness for these [land grant] roles (p. 7).

Baird suggested that land grant programs could be coordinated by an "institute" within the TCU, which would receive guidance from an "advisory council" comprised of community members, tribal representatives, and other local stakeholders.

Baird identified four major areas that should be considered when assessing the role that land grant programs should play at a TCU:

1) Research for institutional capacity-building: The 1994s should conduct baseline research on the current state of tribal land and human resources as the centerpiece for program planning and development.
2) Vocational and postsecondary education for developing resident expertise: The 1994s should then seek to build the local expertise that can address the needs identified through research.
3) Outreach/extension and consumer education for strengthening family and community self-sufficiency: The 1994s should use resident expertise to provide community services and community-based education.
4) Indigenous nation-building to sustain tribal sovereignty and self-determination: The 1994s should help build tribal economies, develop leadership, and strengthen policy-making capacities.

A second major discussion regarding a "tribal" land grant vision took place at the first workshop specifically designed by, and for, the 1994s, in Albuquerque, New Mexico, on February 5-7, 2002. David Gipp, President of United Tribes Technical College, acknowledged the diversity of the 1994s when addressing the work that is required to develop any single, comprehensive land grant plan.[3] During his keynote address, he highlighted an Action Agenda that identified six key challenge areas for the 1994s:

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[2] A copy of the Baird paper can be found on the FALCON website, at: http://stemrc.aihec.org/FALCON/default.aspx.
[3] A copy of the Gipp keynote address can be found on the FALCON website, at: http://stemrc.aihec.org/FALCON/default.aspx.

1) Administrative practices: building the institutional capacity of the 1994s to effectively administer land grant programs;
2) Faculty and curriculum development: developing faculty and staff, and strengthening curriculum and instructional offerings;
3) Student programs: developing and implementing new and innovative programs for 1994 students;
4) Facilities and equipment: securing resources to build facilities, equipment, and technology infrastructures;
5) Community sustainability: providing critical services to 1994 communities;
6) Image enhancement: advocating and raising awareness of the 1994s priorities, needs, and successes.

The Action Agenda was developed by the USDA/AIHEC Leadership Group, a national advisory body of 1994 presidents and top USDA officials, and it provided a roadmap for the USDA/AIHEC partnership. It was not a strategic plan, but it represented a comprehensive to-do list for the Leadership Group to focus their efforts.

During the roundtable discussion at the workshop, the 1994 participants drafted a "1994 Land Grant Colleges and Universities (TLGCU) Vision," which contained four major points:

▪ As 1994 Land Grant Institutions in the 21st century, Tribal Colleges and Universities envision the revitalization of Tribal homelands and the self-sufficiency of America's Indigenous families, communities, and Tribal Nations.
▪ The 1994 TLGCUs seek equitable opportunities to collaborate with institutions and organizations willing to commit to the needs and aspirations of Tribal People.
▪ Respecting traditional and new bases of knowledge, the 1994 TLGCUs seek partnership models embracing the uniqueness of TLGCUs and their integrated approaches toward land and human resources development through research, instruction, community outreach, and advocacy.
▪ The ultimate goal of the 1994 TLGCUs is to ensure the cultural, physical, economic, education, and spiritual well-being of past, present, and future generations of the America's Indigenous people.

The aforementioned visioning points were further refined into a 1994 Land Grant Vision Statement, which was approved by the AIHEC Board of Directors at their meeting in Albuquerque, New Mexico, on November 1, 2002. The vision statement, as approved, read as follows:

The 1994 Land Grant Institutions seek to ensure the well-being of America's indigenous peoples and their tribal nations through discovery, learning and community engagement.

This statement provided a broad, overarching vision that was consistent with each of the 1994s' strategic plan. It also allowed for a variety of programs that would benefit the well-being of tribal peoples.

In summary, being a "tribal" land grant means, above all, using land grant status to work for the benefit and well-being of tribal peoples and nations. For over a decade, discussions have been taking place on the definition of a common 1994 land grant vision and mission. A 1994 Land Grant Vision Statement was approved that provided a broad vision for the 1994 land grant community. A recent common history and a common vision statement provide us a solid foundation for developing our own definitions of what it means to be a "tribal" land grant institution.

> *"Tribal" land grant is:*
>
> - *Ultimately defined by your TCU and community*
>
> - *For the benefit and well-being of tribal peoples and nations*
>
> - *A community of tribal colleges with a common ground*

Step 1: A land grant definition for your TCU will require discussions on your campus and in your community. To start the process, develop your own individual definition of a "tribal" land grant institution. What steps need to be taken to develop a land grant definition for your TCU and community?

What are "land grant" programs?

Before we talk about how land grant programming can complement your TCU's strategic plan, we should first start with a discussion of what kinds of programs fit within the scope of "land grant." As you read about the background of land grant status, you may have got the idea that "land grant" is a rather broadly-defined term, and you would be correct. The scope of "land grant" programming has evolved over time to encompass much more than the original "agriculture and mechanic arts" that the First Morrill Act mentioned.

Since the 1994s became land grant institutions, they have been successfully designing and implementing programs on their individual campuses and in their communities, and nationally through organizations like AIHEC and FALCON. A 2003 article by John Phillips, the USDA/AIHEC Liaison at that time, surveyed the 1994s' land grant programs and suggested some general characteristics of 1994 programming.[4] Phillips identified four guiding principles in 1994 land grant programming that prospective collaborative partners should consider:

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[4] Phillips, J.L. (2003). A Tribal Land Grant Perspective: Changing the Conversation. Journal of American Indian Education, 42(1): 22-35.

1) Holism: 1994 programs use integrated, multi-disciplinary and team-orientated approaches;
2) Sacredness of land and food: 1994 programs emphasize environmental stewardship and sustainability;
3) Cultural identity: 1994 programs promote understanding and respect of cultural differences and strengths;
4) Cultural viability: 1994 programs seek problem-orientated solutions with direct benefits to their people.

Phillips showed that even though great diversity among the 1994s, there were major common areas of 1994 land grant programming. Extension programs often focused on youth development, health and nutrition, agricultural production, and financial education. Many teaching programs were in the computer and geospatial technologies, and natural resource management. Research commonly addressed environmental concerns.

Perhaps the most precise way to describe the broad scope of 1994 land grant programming is to review the four major land grant funded programs for the 1994s. The Tribal Colleges Education Equity Grants Program supports programs that "should focus on undergraduate and/or graduate studies in the food and agricultural sciences in one or more of the following areas: curricula design and materials development, faculty development and preparation for teaching, instruction delivery systems, student experiential learning, equipment and instrumentation for teaching, or student recruitment and retention."[5] Furthermore, "food and agricultural sciences" means basic, applied, and developmental research, extension, and teaching activities in the food, agricultural, renewable natural resources, forestry, and physical and social sciences, *in the broadest sense of these terms*, including but not limited to, activities concerned with the production, processing, marketing, distribution, conservation, utilization, consumption, research, and development of food and agriculturally related products and services, and inclusive of programs in agriculture, natural resources, aquaculture, forestry, veterinary medicine, home economics, rural human ecology, rural economic, community, or business development, and closely allied disciplines (our italics added).

The Tribal Colleges Extension Services Grant Program supports "one or more of the following Extension base program areas: agriculture; community resources and economic development; family development and resource management; 4-H and youth development; leadership and volunteer development; natural resources and environmental management; and nutrition, diet and health."[6] Furthermore, in fiscal year 2007, funded projects needed to support one or more

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[5] For more information about these categories, see the Request for Application (RFA) at: http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1131.
[6] For more information about these program areas, see the Request for Application (RFA) at: http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1132.

of the five strategic goals outlined in the CSREES Strategic Plan for FY 2004-2009:

1) Enhance economic opportunities for agricultural producers;
2) Support increased economic opportunities and improved quality of life in rural America;
3) Enhance protection and safety of the Nation's agriculture and food supply;
4) Improve the Nation's nutrition and health; and
5) Protect and enhance the Nation's natural resource base and environment.

The TCESGP's Request for Applications (RFA) provided examples of appropriate programs, as follows:

> Therefore, projects should address, for example: assisting farmers and ranchers in increasing efficiency of agricultural production systems and in generating high quality products and processes; use of safe and sustainable pest management practices; education about homeland security, particularly as it relates to agriculture; increasing knowledge of market principles, economic diversification and utilization of sustainable farming operations; increasing knowledge of bio-energy and biomass conversion; increasing knowledge to enhance community planning and youth and adult workforce preparation; helping individuals and families strengthen their competencies to become productive, financially secure and environmentally responsible members of society; reduction in the incidence of food borne illnesses; increasing the understanding of the relationship between health and diet/nutrition, particularly in addressing problems related to obesity; helping youth to develop good decision-making and leadership skills and providing educational opportunities to improve their technical skills; and/or improved management of forest and rangelands, including land, air and water.

The Tribal Colleges Research Grant Program "funds investigative and analytical studies and experimentation in the food and agricultural sciences."[7] "Food and agricultural sciences" is defined as discussed earlier. The program's RFA provides the following examples of research that might be supported, but not limited to:

1. Research on human nutrition, sustainable agriculture, sustainable forestry, biotechnology, agribusiness management and marketing, or aquaculture;

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[7] For more information about this program, see the Request for Application (RFA) at:
http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1133.

2. Conducting plant and animal breeding programs to develop better crops, forests, or livestock (e.g., more disease resistant, more productive, yielding higher quality products);

3. Conceiving, designing, and evaluating new bio-processing techniques to eliminate undesirable constituents from, or add desirable ones to, food products;

4. Proposing and evaluating ways to enhance utilization of the capabilities and resources of food and agricultural institutions to promote rural development (e.g., facilitating small rural businesses' exploitation of new technologies;

5. Identifying control factors that influence consumer demand for agricultural products;

6. Research on natural resource issues, phytomediation of soils, water quality, and ecology of grasslands or animal systems; and,

7. Other high priority areas such as analyzing social, economic, and physiological aspects of nutrition; rural housing and lifestyle choices; or rural community strategies for meeting the changing needs of different population groups.

Finally, one grant program supported by USDA's Rural Development agency, the Community Facilities Grant Program, provides funds for tribal colleges to "construct, enlarge, or improve community facilities for health care, public safety, and community and public services."[8] Examples include all purpose buildings/college campuses, school maintenance and equipment service centers, child day care centers, and community centers.

> ***"Land grant" programs are:***
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> - *Food and agricultural sciences, in the broadest sense*
> - *Basic, applied, and developmental research, extension, and teaching activities*
> - *Funded by USDA programs with specific terms and conditions*

Step 2: Identify what land grant programs your TCU is currently administering. What are their focus areas? What USDA programs support them? Where are they in their program lifecycles?

In summary, land grant programming encompasses a broad scope of activities that support teaching, extension work, and research. Land grant programs were designed and implemented at the individual 1994s, and many similarities in focus and methods began to emerge. In practice, the term "land grant" has been very inclusive of the types of issues that the 1994 land grant institutions are addressing. Resourceful and innovative thinking will help you find the match between land grant programs and the issues that you face. One final comment

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[8] For more information about this program, see:
http://www.rurdev.usda.gov/rhs/cf/brief_cp_grant.htm.

involves a common question on whether Native cultural preservation or enhancement is eligible for land grant funding. The answer is yes, when culture is integrated into any of the aforementioned land grant areas. The 1994s have been very successful at integrating cultural content into their land grant programs.

How does land grant programming fit with your TCU's strategic plan?

Much like the 1994 Land Grant Vision Statement, you will find that most TCU strategic plans are written broadly so that land grant programming can fit easily within the institution's mission and goals. In September, 2005, a study was conducted by the USDA/AIHEC Leadership Group to see how often TCU strategic plans could be linked with land grant programming. After reviewing 18 strategic plans, several linkages emerged between the strategic plans and land grant programming.

Communications and marketing, faculty and staff development, culture, and technology were commonly mentioned in the strategic plans, and these are all areas that can easily be supported by land grant programming. Students and teaching were commonly referenced in terms of bridging and transferability, curriculum development, four-year degree program development, and science. Again, land grant programs could easily support these goals. Community education and continuing education was another important theme, and emphasis was often placed on diet, health and wellness, and on economic development. Research was also discussed, and many times it was related to community assessments. All of these areas fit well within the scope of land grant programming.

For example, the following statements below are actual goals, strategies, or objectives taken from TCU strategic plans in 2005:

- "Goal: To seek funding to complete a previously proposed land laboratory facility. This facility will enable the College to provide a quality education in the agricultural science areas. Both the College and community will benefit from a quality teaching/research facility."
- "Objective: Implement a proactive, high quality marketing and recruitment plan to attract students to [the college]."
- "Goal: [The college] will provide specific opportunities for faculty and staff that encourage, support and reward professional development and provide leadership capacity and experiences for faculty, staff and students."
- "Objective: Emphasize studies of the environment, cultures, and societies of [tribal] people, making full use of our natural environment, native language speakers, and elders."
- "Strategy: Increase the usage of alternative program delivery modes such as the Web, interactive television, and streaming video, throughout the

reservation and beyond, to address student transportation issues and to accommodate demand for varied learning styles."

- "Objective: Provide baccalaureate and advanced education at [the reservation] through quality relationships with partner institutions; link activity to regional workforce needs and student interest."
- "Objective: Based upon data gathered, design and implement community educational programs for peoples who reside on the [college's] reservation and in surrounding communities in support of lifelong learning through continuing education."
- "Strategy: Establish a plan for encouraging, rewarding, and tracking faculty research projects involving students as researchers in studies such as the environment, cultures, and societies of Indigenous people."

Can you see how land grant programming would easily support the above-mentioned strategies, goals, and objectives? What land grant programs might support the objective to "implement a proactive, high quality marketing and recruitment plan to attract students?" The Tribal Colleges Education Equity Grants Program supports "student recruitment and retention" in broad areas of study. The Tribal Colleges Extension Services Grant Program supports programs "helping youth to develop good decision-making and leadership skills and providing educational opportunities to improve their technical skills." The Tribal Colleges Research Grant Program could promote the use of students in important research, which could represent an effective student recruitment tool. Finally, the Community Facilities Grant Program could support the building of attractive student support facilities, including a student union or fitness center.

> **Exercise 1:**
>
> **Describe some possible land grant programs that would support the following objective found in a TCU's strategic plan: "Collect data from each community in the [college's] service area to ascertain the needs of community members: personal and family, jobs and careers, recreational, educational needs."**

Step 3: Find a copy of your TCU's Strategic Plan. Review its strategies, goals, and objectives for compatibility with your current and potential land grant programming.

Stakeholder Input and Situational Analysis[9]

Many planning processes start with a study of the current situation. When your TCU's Strategic Plan was developed, it is likely at some sort of situational

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[9] The next three sections are based largely on material from the University of Wisconsin's Program Development and Evaluation resource center, which can be found at: http://www.uwex.edu/ces/pdande/index.html.

analysis was a part of the process. Although it may have been some time since that work was completed, it would be helpful to use that information as a foundation for a more detailed situational analysis for your land grant programming.

Assuming that the reason for conducting a situational analysis is to plan for land grant programs, the process can be started by asking some simple questions regarding the current situation at your TCU and in your community, such as who, what, and how? For example, who are the people on your campus, in your community, and beyond that have an interest in your current or potential programs?   These folks are often referred to as your "stakeholders," that is, they have a stake in your programs. Our programs have a much better chance of success if all the various stakeholder perspectives are taken into consideration. To the extent possible, these stakeholder groups will need to be brought into the planning process.

Stakeholders can be internal to your TCU, such as faculty, staff, students, administrators, presidents, and Boards of regents, trustees or directors. They can be external to your TCU, but local, such as community members, tribal government representatives, nonprofit directors, school administrators, religious leaders, and so on. Stakeholders can be external and regional or national, such as state representatives, federal agency officials, funding organizations, or accrediting bodies.   Developing a comprehensive list of all your stakeholders takes time

> *Exercise 2.*
>
> *Describe the possible stakeholder groups associated with a TCU Extension program, partnering with USDA and the Boys and Girls Club, that works with local eighth-graders to collect water samples on the reservation. Use your local telephone directory to check if you've missed any local stakeholder groups.*

and careful thinking. You should involve several people with different perspectives in developing the list, and provide enough time so that you can be sure that no one group was missed.

Step 4: Identify your stakeholder groups. Identify ways to include these groups in the planning process.

The next question is a series of "what?" questions. What data exists about your situation? What data does not? What resources are needed to collect and analyze the data? Depending on the resources and time available, you may be able to conduct a community-wide survey to gather the needed data, or you may need to utilize an advisory group that's representative of the community. Other methods of gathering data include community asset mapping, focus group interviewing, or in-depth individual interviewing. Whatever method you choose to use, it should be as representative of your stakeholders as possible and collect

as much data as your resources will allow. Don't forget to first look for data that has already been collected so that you can make best use of your limited resources.

Next, you will need to develop a set of questions that are most important for your program planning and development. Only you and your TCU will know what questions are most appropriate for your stakeholders to answer. A paper by the University of Wisconsin, *Situational Analysis—Building Involvement and Ownership*[10], offers some questions that you might ask of your stakeholders.

The questions below are adapted from that paper:

- What are the major issues and concerns that are facing the people of the reservation?
- What are the major challenges facing youth, families, business, industry, environment, agriculture, government, schools, etc., in the next year, next five years, next 10 years?
- What major strengths/capabilities/assets exist to improve the quality of life and work in the reservation?
- What are the positive things about the quality of life and work that we want to preserve?
- What are the negative things about the quality of life and work that we want to change?
- What major tribal, state, and national trends will impact the economy and quality of life within the reservation?
- Under ideal circumstances, what do you want our community/reservation to look like within the next five years?

Make sure that your questions are broad enough to encompass a wide range of perspectives and opinions. Be especially careful not to ask questions that might lead to certain answers, thus biasing your results. For instance, even though you might be quite certain that youth development is a major concern in the

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[10] The paper can be found at:
http://www.uwex.edu/ces/pdande/progdev/pdf/ProgramPlanningp8to9.pdf.

community, you will want to refrain from communicating that feeling. Your study will be much more valid if you ask unbiased questions.

Step 5. Identify the data that need to be gathered and what methods you will use. What data are already available? What questions need to be asked? How will you ask those questions? How will you deliver those questions to your stakeholders?

The final step in the situational analysis is answering, how? How will you communicate the results of the analysis in a meaningful way? Your USDA CSREES funding program will want a report included it applications (see Box x.). Furthermore, it is good practice to communicate the results of your analysis to your community. This can be accomplished by using newsletters, local newspapers, or the TCUs' Website. If you have used an advisory board, it might be good to prepare for presentation to them. Another how question is, how will you use the data to plan for successful programs, which we will discuss in the next section.

Setting your priorities

The next step in planning for land grant program is to set your priorities. By now, you have probably received a rich list of issues from your stakeholder input and situational analysis. Obviously, you cannot address everything on the list, so you need to prioritize. Prioritizing involves asking a series of questions regarding the appropriateness of an issue to your institution's mission, its compatibility with land grant programming, your available resources, and whether you're in the best one to tackle the issue.

Another University of Wisconsin paper, *Focus on Priority Setting*[11], offers some questions that you might want to consider when setting your priorities. The questions below are adapted from that paper:

- What are the top priorities among the various concerns and needs that were identified during the situational analysis?
- What do we know about these priorities?
- Which of these top priorities match with our TCU's mission and strategic plan?
- Which of these top priorities are within our scope of land grant programming?

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[11] The paper can be found at:
http://www.uwex.edu/ces/pdande/progdev/pdf/ProgramPlanningp12to20.pdf.

- Are resources available and/or accessible for addressing these priorities?
- Is someone else, another group or agency, better equipped to deal with this priority than us?
- Who else is already working on this priority? What role or contribution might we have? Who might we partner with?

Step 6: Set your priorities by determining which issues are most appropriate to your institution's strategic goals, land grant scope, available resources, and your capacities.

Once you have decided which issues you are most able to address, you are ready to plan for specific programs. Remember though, that stakeholder input, situational analyses, and priority setting are all processes that take place in a "snapshot" in time. In other words, things are constantly changing, and the process that you go through today may reap a different set of results if done a few years ago, or a few years from now. So these processes need to be re-visited on a regular basis and should be incorporated into your ongoing pattern of business. It would be an excellent policy to conduct these exercises every two or three years.

Designing Backward using a Logic Model

A logic model is simply a visual way to highlight the step-by-step connection between your resources and your program's activities, outputs, outcomes, and ultimate impacts (see Figure 1). There are many different variations of logic models, but each uses a sequence of logical relationships to help simply complex planning, design and evaluation processes. Although using a logic model might first appear to be a linear exercise, they are actually quite non-linear in practice. For instance, you might find that program outputs will often lead to a need for more resources or a refinement of your program's activities. You may also find that it is easier to design your program starting with impacts and then working

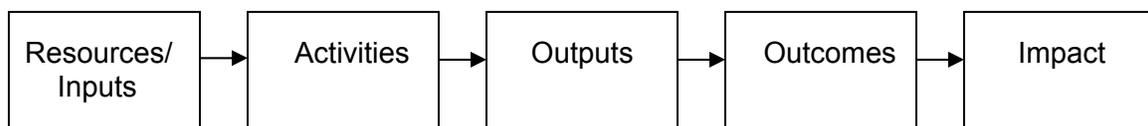| Resources/ Inputs | → | Activities | → | Outputs | → | Outcomes | → | Impact |

Figure 1. The Basic Logic Model.[12]

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[12] From W.K. Kellogg Foundation Logic Model Development Guide, http://www.wkkf.org/Pubs/Tools/Evaluation/Pub3669.pdf.

backward toward your resources and inputs. Whatever your preference, using a logic model can help to simplify and clarify a process that can be confusing and complex. It also offers a common language for 1994 program directors to share their experiences, to evaluate their programs, and to collaborate with each other.

Designing backwards is a concept that draws upon the process of defining learning outcomes in curriculum development. Learning outcomes are statements of the skills, knowledge, and abilities that students will possess and demonstrate upon completion of a learning experience. They are the defined endpoints of a particular learning experience or sequence of experiences. Course curriculum is then designed backward from that learning outcome to ensure that the learning experience maintains its focus on the outcome. Likewise, designing programs backward from its impacts can ensure that the program's design is focuses on the ultimate goal.

Once you have identified a priority issue that you want to design a program to address, you are ready to use a logic model for program planning. Figure 2 is a worksheet that you can use to complete the program planning process. The first step is to describe the **impact** that you are trying to achieve. This impact statement will likely be closely worded to the priority issue that you are addressing, and it will represent the broad goals of the program. For example, if a major priority was to improve the diet, health, and well-being of tribal members, then one of your impact statements would read something very similar to that, "better diet and lifestyles of tribal members reduces diabetes."

Other impact statements might read like, "inter-generational relationships increase the well-being of the Tribe," or, "cultural knowledge of health is preserved and strengthened." Notice that your impact is a bit more specific, but not much more. Impacts are your very lofty, high-level, long-term, ultimate goals. They represent a vision of a better future.

> **Exercise 5.**
>
> **Develop two or three impact statements that would address a top stakeholder group priority of developing the entrepreneurial base of the Tribal economy.**

Step 7: Develop program impact statements from your top priority issues.

Next, you are ready to develop your short- and long-term **outcome** statements, which are also referred to as objectives. Outcomes are more specific and near-term than impacts, and will present measurable and meaningful statements of what you want the program to accomplish. For example, if an impact was to improve the well-being of tribal members by through better diet and lifestyle choices, then one of your impact statements would read something like, "reduce the number of new diabetes cases among tribal members by 10% over five

Figure 2. Program Planning Template

RESOURCES	ACTIVITIES	OUTPUTS	SHORT- & LONG-TERM OUTCOMES	IMPACT
In order to accomplish our set of activities we will need the following:	*In order to address our problem or asset we will accomplish the following activities:*	*We expect the once accomplished these activities will produce the following evidence or service delivery:*	*We expect that if accomplished these activities will lead to the following changes in 1-3 then 4-6 years:*	*We expect that if accomplished these activities will lead to the following changes in 7-10 years:*

years." Another impact statement might address obesity, such as, "reduce the weight of obese tribal members by an average of 10 lbs. over five years." Notice that the impact statements are much more specific in the amount of success you hope to achieve within a given time period. Other outcome statements might be like, increase the number of active memberships in the Tribe's fitness center by 10% over one year," or, "increase the amount of fresh fruits and vegetables consumed at K–12 school lunch by 10% over one year," or, "increase the knowledge of traditional health practices by raising scores by 10% between a pre- and post-training survey."

> **Exercise 6.**
>
> **Develop two or three outcome statements that would address the impact statement, "increase the profitability of agricultural producers on the reservation."**

Step 8: Develop program outcome (objective) statements from your impact statements.

The next task is to identify the program **outputs** that will lead to your short- and long-term objectives, which then lead to your impacts. Program outputs represent the tangible evidence that our program activities have produced something, and they are the "raw material" that helps us achieve our outcomes or objectives. Outputs are very specific in terms of numbers and other evidence. If you were a detective trying to solve a crime, outputs would be the physical evidence that would help build your case. It would show that a certain activity had taken place, and it would link that activity with an outcome. For example, outputs might be the number of participants attending a workshop, or the pounds of vegetables grown in a community garden, or number of volunteers working on at a community event. Outputs could also be the number of classes taught, the number of crafts produced, or the number of trees planted. Keep in mind that you can have many outputs that address a single outcome, just as several outcomes can address a single impact.

> **Exercise 7.**
>
> **Develop two or three output statements that would address the outcome statement, "increase the number of tribal members who own homes by 10% over three years."**

Step 9: Develop program outputs that would lead to your program outcomes.

We just have a couple of steps left to complete our program design. **Activities** are the actual things that your program does, whether that is teaching classes,

growing gardens, organizing youth camps, or collecting soil samples. They also include all of the other necessary steps that may be involved in implementing a program: hiring a project director, creating an advisory board, designing a detailed work plan, developing partnership, writing grants for additional resources, and so forth.

For instance, if you think of hosting a Thanksgiving dinner as your major activity, you will quickly realize that there are many other activities that are critical to the dinner, such as creating the menu, guest list, and shopping list; shopping; cooking the meal; preparing the table settings; and, of course, cleaning up afterwards. All of these activities might be simply listed as "create a detailed work plan, meal preparation, and clean-up," but the point is not to forget all of the necessary activities.

Step 10: Develop program activities that would lead to your program outputs.

Finally, we are ready to identify the *resources*, or *inputs*, necessary to conduct your program activities. These resources can include grant funding, staffing, classroom space, and any other things that are necessary in order to conduct the program's activities. They could also include necessary partnerships that contribute particular expertise, the institutional commitment

of your TCU, or specific training for your staff. Many times, the focus on resources is set primarily on grant funding, but there are many other resources that are necessary beyond funding. Funding alone usually cannot produce the needed activities—it often takes people, knowledge and skills, a place, and more.

Step 11: Identify resources, or inputs, that are necessary for your program activities.

Now that we have gone through each step in program design, let's put it all together with some examples of 1994 extension, teaching, and research programs.

Putting it all Together: An Extension Example

Jill Martin is an Extension Director at a Tribal College. She has just read her stakeholder input report that shows that gang activity among tribal youth is a top

concern. Data from law enforcement, the K–12 school, and the tribal housing authority confirmed that gang activity was a growing problem throughout reservation communities. Plus, Jill knows that anyone driving around the reservation can see the graffiti on buildings and road signs marking gang territory. During priority setting, Jill recognized that youth development was consistent with her TCU's strategic plan, which had an objective that said, "work with other community organizations, especially the Tribes and the public schools, to provide positive recreation and social activities for reservation youth." Jill also checked that youth development is within the scope of land grant Extension programming, and that she has the resources and expertise within her department to address the issue.

From the top priority issue of reducing gang activity among tribal youth, Jill develops an impact statement that reads, "strengthen the Tribe by increasing the well-being of tribal youth." She knows that increasing the well-being of youth is closely associated with reducing harmful behavior (in other words, gang activity). So, Jill develops one outcome statement that says, "increase the number of annual healthy and positive youth activities on the reservation by 25% over five years." She also develops another outcome statement that says, "decrease the number of youth gang members by 10% over two years." For each outcome statement, Jill then proceeds to identify the resources, activities, and outputs needed. Jill starts working on the first outcome that seeks to increase the number of positive youth activities.

Jill asks herself, what would be the outputs associated with increasing the number of positive youth activities on the reservation? Naturally, she knows, one output would be the number of activities themselves. But what if no one attended? Another output, then, would be the number of participants. Because these activities would be annual events, a guide or checklist for planning the activity might be another output. What other outputs might be relevant? Media coverage, number of volunteers, or number of inquiries into enrolling at the TCU could all be other outputs. Jill writes down all of these outputs in her notes.

After consulting with a number of youth development workers on the reservation and surveying the current activities offered, Jill decides that her department could design and deliver an summer youth camp. There were other activities that Jill thought she could sponsor, but she decided to start small at first and so will just focus on a summer camp. Jill then determines that she will need funding to support this program, and a new youth programs coordinator, new partnerships with local organizations, and a youth advisory group. These needed resources also alert her that she will need to have a set of activities associated with finding these resources.

All of these components of the logic model come together as Jill's program design, as shown in Figure 3.

Figure 3. Program Design for Extension Example

RESOURCES	ACTIVITIES	OUTPUTS	SHORT- & LONG-TERM OUTCOMES	IMPACT
In order to accomplish our set of activities we will need the following:	*In order to address our problem or asset we will accomplish the following activities:*	*We expect the once accomplished these activities will produce the following evidence or service delivery:*	*We expect that if accomplished these activities will lead to the following changes in 1-3 then 4-6 years:*	*We expect that if accomplished these activities will lead to the following changes in 7-10 years:*
Funding A youth programs coordinator A youth advisory group Supportive partnerships	A summer youth camp Develop a youth coordinator position, advertise, and hire Organize a youth advisory group Establish key partnerships with local youth organizations	Number of activities Number of participants Planning guide Media coverage, Number of volunteers Number of inquiries	Increase the number of annual healthy and positive youth activities on the reservation by 25% over five years. Decrease the number of youth gang members by 10% over two years	Strengthen the Tribe by increasing the well-being of tribal youth.

Putting it all Together: A Teaching Example[13]

Sam Johnson teaches and administers the Associate of Science (AS) Natural Resources Management Program at a Tribal College. He is the only full-time instructor in the program, although two adjunct instructors teach selected courses. There are also two English instructors, neither of whom has interest in or experience with scientific literature.

Students enter Sam's program with considerable experience in hunting, camping and working in the outdoors, as well as a strong personal and cultural commitment to preserving their Tribe's resources. However, they struggle with writing and reading. They balk at reading assignments, and continue to make the same writing mistakes in organizing ideas and citing sources, despite Sam's best efforts.

According to Sam's stakeholder group, the Natural Resources (NR) Advisory Committee, employers place a top priority on graduates' ability to write simple technical reports using professional literature with appropriate citation styles. More than any other knowledge or skill, Sam believes that it is the lack of professional communication skills that inhibits his students' ability to achieve their career goals. Sam knows that he doesn't have training in communications education and he already carries a heavy teaching load. He decides to design an educational program to address the poor communication skills in his students.

Using comments from his advisory committee and classroom experience, Sam starts with the impact statement, "improve students' communication skills for greater career successes after graduation." Sam then develops an outcome statement that is more specific, "in three years, improve writing and reading competencies in NR students by 25%, as measured by pre- and post-tests." Next, Sam identifies the outputs associated with an increase in writing and reading competencies, as: 1) functional benchmarks or competencies for communications courses, 2) communications curriculum, 3) assessment tools (pre- and post-tests), and 4) the number of students completing the curriculum.

Sam then lists the activities, including training instructors, developing communications curriculum, adding reading/writing course requirements to the NR degree program, and evaluating the courses. Finally, he determines the resources to accomplish the activities. He knows he will need instructors to be hired or assigned, additional funding to support the extra teaching loads and curriculum development, and a new writing lab. He will also need to look at various models of communications curriculum that can be adapted. All of these components of the logic model come together as Sam's program design, as shown in Figure 4.

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[13] Adapted from a case study written by Pat Hurley and presented at the 2006 FALCON Conference. The original case study can be found at::
http://stemrc.aihec.org/FALCON/default.aspx.

Figure 4. Program Design for Teaching Example

RESOURCES	ACTIVITIES	OUTPUTS	SHORT- & LONG-TERM OUTCOMES	IMPACT
In order to accomplish our set of activities we will need the following:	*In order to address our problem or asset we will accomplish the following activities:*	*We expect the once accomplished these activities will produce the following evidence or service delivery:*	*We expect that if accomplished these activities will lead to the following changes in 1-3 then 4-6 years:*	*We expect that if accomplished these activities will lead to the following changes in 7-10 years:*
Instructors hired or assigned. Funding to support the extra teaching loads and curriculum development. New writing lab with computers and word processing software. Models of communications curriculum that can be adapted.	Training new instructors. Developing new communications curriculum. Adding new reading/writing course requirements to the NR degree program. Evaluating the courses.	1) New functional benchmarks or competencies for communications courses. 2) New communications curriculum. 3) New assessment tools (the pre- and post-tests). 4) Number of students completing the curriculum.	In three years, improve writing and reading competencies in NR students by 25%, as measured by pre- and post-tests.	Improve students communication skills for greater career successes after graduation.

Putting it all Together: A Research Example

Dusty Bluestem is the Research Director at a Tribal College. Dusty has been in his job for two years now, working on a research project involving range management and invasive weeds. He has a BS degree in animal science and a MS degree in range management. In September, the Tribe's Natural Resource and Environment (NRE) Subcommittee asked Dusty to meet with them. Water quality test results were back from the lab and the reservation's largest lake, Big Lake, was in trouble. Tests showed that nitrogen levels were high, which was fueling an increasing algae population that was choking off the oxygen supply for the lake's fisheries, and fish were dying. The NRE subcommittee asks Dusty to develop a research program to investigate the problem and find out why nitrogen levels were so high, and what could be done to fix the problem.

Dusty considers the Tribe's NRE subcommittee his primary stakeholder, and so jumps into action. Based on the NRE subcommittee's input, Dusty develops an impact statement that reads, "improve the health of the Tribe's fisheries through better water quality." He then decides that his short-term outcome is to, "within one year, determine the contribution of the top five source(s) of nitrogen in Big Lake." Further, his long-term outcome is to, "reduce the levels of nitrogen in Big Lake by 25% over five years."

For the first short-term outcome, Dusty knows that outputs will be data on the sources of nitrogen, but also a scientifically valid and reliable methodology so that tests can be repeated at regular intervals. He also knows that the NRE subcommittee will want a final report and presentation. Dusty also wants to promote his TCU's research credentials by publishing his findings in the scientific literature and sharing the research at a national conference. For the long-term outcome, Dusty will need to develop a list of recommendations for action, along with management plans with various options.

Regarding activities, Dusty will need to design the research plan by conducting a literature review and developing a methodology. He will need to take water samples at potential source points, and store the results in a database. He will need to analyze the data. But, because Dusty's background is not in water quality, he will first need to establish a partnership with a researcher that has the needed expertise. He will also need students who can assist him.

Finally, Dusty writes down the resources that he will need. He knows he needs a research partner and student research assistants. He needs online full-text access to the scientific literature. He needs funding for staffing, computers, and water sampling equipment. He will also need permission from various tribal and non-tribal land owners to do field work.

All of these components of the logic model come together as Dusty's program design, as shown in Figure 5.

Figure 5. Program Design for Research Example

RESOURCES	ACTIVITIES	OUTPUTS	SHORT- & LONG-TERM OUTCOMES	IMPACT
In order to accomplish our set of activities we will need the following:	*In order to address our problem or asset we will accomplish the following activities:*	*We expect the once accomplished these activities will produce the following evidence or service delivery:*	*We expect that if accomplished these activities will lead to the following changes in 1-3 then 4-6 years:*	*We expect that if accomplished these activities will lead to the following changes in 7-10 years:*
Research partner. Student research assistants. Online full-text access to the scientific literature. Funding for staffing, computers, and water sampling equipment. Access to tribal and non-tribal land.	Establish research partnership with water quality expert. Develop research plan with literature review and methodology. Recruit student research assistants. Collect water samples at potential source points, store results in database. Analyze the data.	Data on the sources of nitrogen. Valid and reliable methodology. Final report and presentation to NRE subcommittee. Published findings in the scientific literature and at national conference. Recommendations for action, management plans with various options.	Within one year, determine the contribution of the top five source(s) of nitrogen in Big Lake. Reduce the levels of nitrogen in Big Lake by 25% over five years.	Improve the health of the Tribe's fisheries through better water quality.

Implementing Forward using a Logic Model

Once your have completed your program design, it's time for a reality test. "Walk through" your design from start to finish as if you were implementing it. Have you missed anything? Remember that a logic model is not necessarily linear, and that there are many feedback loops in the model. For instance, as you read through your activity list, did you forget to include any necessary resources? If your outputs or outcomes were not achieved, is there a way to loop back to an earlier stage to improve the design? Should you build that improvement into the design now instead of later? Good program planning and implementation is a constant process of self-assessment and improvement.

Once you have completed your program design, you are now ready to take your next steps. You may need to "sell" your program design to gain approval to proceed, or you may be able to start marshalling the necessary resources. You might need to respond to your stakeholder groups first and then allow them to respond to your design and offer suggestions. Although this may add time and effort to the design process, gathering more input can reduce the risk of missing an important element in your design. It also spreads ownership to a broader constituency, which can be an important resource when implementing the program.