

The use of cultural risk assessment within the 1994 Tribal land-grant colleges and universities

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Abstract

In 1994, the United States Congress established 35 Colleges or Universities on Reservation Lands of the Native Americans throughout the Midwest and Western United States. These new institutions were provided annual funds from the United States Department of Agriculture for education, research and extension, components of the Land-Grant system. Today, issues related to risk assessment and risk management confront tribal decision-makers as they cope with risks, both real and perceived, that include the transportation of hazardous materials through the reservation, the clean-up of contaminated sites within the reservation, the environmental restoration of Federal facilities, the siting of waste treatment, storage, and disposal facilities, the development of tribal mineral and other natural resources, and the construction and operation of industrial and commercial facilities within the reservation. Tribal decision-makers lack Indian-specific epidemiologic, genetic, and cultural information that impact current risk assessment models needed to incorporate tribal cultural issues. There is a need to enhance the science skills of tribal college faculty in assisting tribal councils and tribal colleges in the long-term planning and stewardship of natural resources on their reservations.

Introduction

Tribal decision-makers and environmental regulators in tribal settings are generally ill-prepared to respond when confronted with the need to make resource management, environmental protection, and other decisions based on risk. It is generally acknowledged that conventional risk assessment and risk management methodologies do not reflect tribal values and priorities, nor do they accurately depict the unique health, environmental, and cultural risks that tribal communities face [1]. Moreover, there are very few tribal decision-makers and environmental program officials who are knowledgeable about risk, risk analysis, and risk management. The opportunity to “level the risk playing field” must begin with the 35 tribal colleges that have been created since the Congress of the United States directed the formation and funding of the 1994 Land-Grant Institutions. Understanding how these institutions were established, their roles in support of the Tribal Nations and the Reservations, and how risk assessment can be incorporated into their academic programs is essential.

Tribal Colleges- The New Land-Grant Institutions

The Congress of the United States directed the United States Department of Agriculture (USDA) to provide “land-grant” status to 35 colleges and universities that were controlled by Native Americans and were primarily located on Indian Reservations. The Equity in Educational Land-Grant Status Act of 1994 provided 35 tribal colleges in the Midwest and Western United States with land-grant status for the “benefit of agriculture and the mechanic arts” within Native American communities [2]. In lieu of receiving public land or scrip for the endowment and maintenance of the colleges, Congress authorized annually the appropriation of funds to be distributed to the colleges for academic programs in the food and agricultural sciences. The Act also provided funds to the colleges for a non-competitive grants research program, a competitive grants extension program, and a Capacity Building Program. In summary, each tribal college now sponsors and supports research, education and extension programs that enhance local agriculture and food production [2]. Presidential Executive Order 13021 (1996) reaffirmed the special relationship of the Federal Government to American Indians and Alaska Natives, and for the purpose of helping to:

- Ensure that tribal colleges and universities are more fully recognized as accredited institutions, have access to opportunities afforded other institutions, and have Federal resources committed to them on a continuing basis.
- Establish a mechanism that will increase accessibility to Federal resources for tribal colleges and universities in tribal communities.
- Promote access to high-quality educational opportunities for economically-disadvantaged students
- Promote the preservation and the revitalization of American Indian and Alaska Native languages and cultural traditions
- Explore innovative approaches to better link tribal colleges with early childhood, elementary, and secondary education programs
- Support the National Education Goals of the United States.

The Federal Government must be committed to providing equal opportunity for all peoples. The roles and responsibilities of the Federal Government to the Native American community are now being defined. In 2000, the United States Department Of Energy (DOE) prepared the Guide for DOE Employees, “Working with Indian Tribal Nations” [3]. What is the value of the tribal colleges having the status as “land-grant” institutions? President Abraham Lincoln signed the first land-grant act in 1862. He stressed the concept of publicly funded agricultural and technical educational institutions that would be open to the common person. The law gave every state and territory land to be used in establishing “land-grant universities”; hence, Land-Grant Universities were established in every state, e.g., The University of Oklahoma, The University of Michigan, etc. [4]. The Second Land-Grant Act of 1890 required each state to show that race was not an admissions criterion, or else to designate a



separate land-grant institution for persons of color. The Act withheld funds from states that refused to admit non-white students unless those states provided “separate but equal” facilities; thus, the foundation of 17 black colleges [5]. And, as noted, land-grant status was conferred on 35 Native American tribal colleges in 1994 [6]. The influence of the land-grant schools on American higher education has been formidable. By the early 21st century a significant percentage of all students seeking degrees were enrolled in land-grant institutions. Because their admission policies have had a history of being more open than most other institutions, land-grant universities and colleges have made it possible for women, working-class students, and students of all races and nationalities, and from remote areas to obtain undergraduate and professional education at low cost [4, 5].

Uniqueness of Tribal Colleges

To understand the importance of cultural risk assessment, requires an understanding of the uniqueness of the Tribal Colleges [6]. The Tribal Colleges/1994 Institutions are unique in that they are chartered by one or more tribes and maintain a board of directors that are exclusively or predominately American Indian. Like a state university or public community college, they are formally sanctioned and accredited as the institutions of higher learning for their communities. All tribal colleges began as two-year institutions. The immediate goal was to provide vocational training, especially for jobs within the reservations. A longer-term goal was to prepare students to transfer to higher education four-year degree programs [7]. Today, job training is still important, but the range of certificate or associate degrees have expanded to include culinary arts, construction trades, business, nursing, secretarial science, early childhood education and tribal management. As the Tribal Colleges have grown, most are now offering four-year bachelor's degrees and graduate degrees in areas of agriculture, food science, nutrition, and natural resource management [7]. The role of USDA in developing and supporting these programs has been essential [8]. Courses in Native American studies are a special part of every tribal college. All colleges offer courses in their tribe's arts, philosophy, history, and native language. While most students choose to major in career-oriented disciplines, many enroll in one or more cultural courses, and all feel the influence of tribal culture on campus. Tribal colleges have a dedication to students that most other colleges and universities cannot match. These colleges confront subtle barriers to enrolment. Within reservations, the greatest obstacles are the severe economic hardships, and often a psychological barrier, namely, the belief that higher education is intimidating. Tribal college staff work especially hard to eliminate fears, while always supporting students and ensuring their success [9].

Cultural, Historical and Tribal Risks

As noted earlier, there are very few tribal decision-makers and environmental program officials who are knowledgeable about risks, especially cultural risks, and risk management. This is not surprising since most American Indian students have only recently been taught modern methods for evaluating impacts to tribal lifestyles, health, and resources. Stuart Harris, a member of the Confederate Tribes of the Umatilla Indian Reservation, Oregon explained: “Tribal elders have explained that our behaviour is a conscious response to rigorous environmental shaping. They understood the value of systematic observation and used inductive reasoning to determine the most probable reactions of complex and interrelated ecosystem function. This understanding formed the basis of our resilient and adaptive holistic environmental management science. The application of this science...and knowledge is still transferred between generations. Attention to and application of this knowledge means personal survival and enhancement of our ecology, culture, and religion” [10]. Cultural risk assessment considers the risk to the lifestyle and culture of the indigenous population involved. If a community is prevented from carrying out activities which are considered part of the identity of that community, then this is cultural impact. A significant amount of research has been carried out into cultural risk [1, 11]. Some contaminated sites are of historical or Tribal value and it is important not to lose sight of that in the clean-up process, especially when monetary considerations come into play. In the past 40 years, numerous statutes and laws have been passed by Congress to protect cultural resources of Native Americans. In the context of these laws/Acts, cultural resources have typically included sacred places, burial ground, traditional use areas, archaeological sites, and landforms mentioned in legends. But the field is changing; instead of viewing cultural resources as static sources of historical and scientific information, there are new tools that provide genetic information of tribes that open doors to epidemiologic studies, e.g., to identify genes that influence diseases such as diabetes and alcoholism. Young has noted that “we are beginning to understand their part in cultural systems of today. If Native Americans are to retain their way of life, they must be able to access all their cultural resources” [9]. The standard risk assessment paradigm focuses on human and ecological exposure pathways and health endpoints. Now it is important for risk assessments and risk management programs to include impacts to culture. There are processes for identifying and protecting archaeological and

historical sites located on Federal lands. Now, there must be a process to consider the aspects of culture [9].

The Challenges for Native Americans

It is appropriate that American Indians receive access to the land-grant system, for no lands are more within the heart of rural America than Reservations. More than 54.5 million acres currently lie within American Indian Trust Territories. Of this, 75 percent are agricultural lands and 15 percent are forestlands [8]. The potential of the natural resources and agricultural opportunities on these lands are tremendous, but due to the lack of training, planning, and access to technology, millions of acres of Indian land are not fully used. Tribal colleges, with their uniquely close ties to Native American communities and with their ability to attract and retain Indian students are key for turning the Reservation economies and education status to meet the current challenges facing life on the Reservation. Central to their success will be the careful identification and subsequent long-term use planning and stewardship of the natural resources on Indian lands. To accomplish the task of developing and enhancing cultural risk programs and curricula within the tribal colleges will require a training program. For example, a teaching tool will be needed that:

- a) Includes using tribal values and policies to develop risk measures, metrics, and indicators.
- b) Introduction to toxicology and conventional risk assessments.
- c) An example of how these two segments can be combined into a tribal risk model that reflects lifestyles, values, and cultural risks; and
- d) Examples of how to do this within specific legal, policy, and regulatory frameworks such as those established by the Federal-Indian trust relationship, treaty provisions and the Federal statutes.

Because each actual tribal application might need to be slightly different, examples will need to be developed showing how tribal cultural, social, and spiritual values can be incorporated into tribal risk models. Long-term planning and stewardship of a tribe's natural resources requires that the tribal college establish, maintain, and manage a natural resource program. Unfortunately, Federal agencies and state universities that conduct land use and natural resource planning, have few Native Americans on the staffs that are professionally trained in areas of land use and natural resource planning. Hence, the role of tribal colleges in attracting, training, and providing the experience of Native Americans to be competitively employed in these agencies, including tribal agencies, will be critical. Scientists and science administrators in and out of Federal government and Land-Grant Universities have responsibilities to ensure that the next generation of young men and women of all diversities not only understand science and technology, but appreciate its application to the stewardship of all our lands, including our Indian reservations. Risk assessment to include cultural risk assessment, risk management, and risk communication are key concepts if we are to make the best decisions for the future. Training in these areas at tribal colleges and at all our institutions of higher learning will ensure that as cadre of young people will be prepared for the future and that the playing field of environmental management will be level!

“Ignorance is one of the greatest barriers to understanding between two peoples. If we don't understand each other, if we do not know the culture, the language, or the history of each other, we are unable to see each other as human beings with value and dignity. This is especially true in relations between Indians and non-Indians.”

William C. Wantland (1975)

Former Attorney General, Seminole Nation of Oklahoma

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