The Apache people gradually migrated south from northwestern Canada and Alaska around 1500 AD (Basso, 1983; Lupe, 1979). Apache legends state that they came from the north. In pre-colonial times, the indigenous territory of the various Apache bands extended from western Texas, through southern New Mexico and into eastern and central Arizona. “The Apache lived in small bands that moved with the seasons and availability of resources.” (Lupe, 1979).

A presidential executive order in 1871 established the joint White Mountain/San Carlos Indian Reservation, including the Aravaipa, Chiricahua, Coyotero, Mimbreno, Mogollon, Pinaleño and Tsiltadén Apache groups. Another executive order in 1972 supplemented the original order. The area included 3.5 million acres in Gila, Graham, Apache, Navajo and Pinal counties. An Act of Congress in June, 1897, divided the White Mountain Apache Reservation and the San Carlos Apache Reservation. Currently, the San Carlos reservation contains 1,853,841 million acres. Almost the entire area is in trust lands, with the exception of two 80 and two 150 acre parcels near Winkelmann, AZ, which the government granted to Apache scouts—at present this land is divided among the numerous heirs of the scouts (Richins, personal communication, 2007). The San Carlos Apache Tribe has been attempting to restore two parcels of land consisting of 60,000 acres, due to a survey error in 1893; these areas are in the southeastern and southwestern edges of the reservation (Bonita Creek and the Mineral Strip) (Bureau of Indian Affairs, 2007). The San Carlos reservation is 20 miles east of the town of Globe, and 100 miles east of metropolitan Phoenix.

Communities

The total tribal enrollment includes 13,246 people, with the enrolled tribal membership in residence on the reservation at 10,709 people. There are three main communities, San Carlos (tribal governmental seat), Peridot, and Bylas. Peridot and San Carlos are on the western side of the reservation, and Bylas is on the extreme eastern side of the reservation, 25 miles west of Safford, AZ (BIA, 2007). Recognized political districts include Bylas, Peridot, Gilson Wash, and Seven Mile. Median family income is below $20,000 (2000 U.S. Census). In 2005, the total available labor force was 7,031; 1,390 were employed in the public sector and 1,066 were employed in the private sector, and 878 were not available for work. The unemployment rate was high compared to the state unemployment rate.
The University of Arizona Cooperative Extension

Language
The Apache people speak a southern Athabaskan language, closely related to the Navajo people’s language. The Apachen group, which includes the Navajo, who exhibit a related culture and language to the Apache people, speak 7 distinct languages, and are divided into groups consisting of Navajo, Western Apache, Chiricahua, Mescalero, Jicarilla, Lipan and Plains Apache (formerly Kiowa-Apache). (Native Language, 2008). The San Carlos reservation is in the area of traditional Western Apache lands, but the government settled 13 different bands of the Apache on the reservation in the latter part of the 19th century, some of which manifested distinct dialects of the Apache language (Stevens, personal communication, 2006).

At present, 47% of the population speak Apache. San Carlos High School and Eastern Arizona Community College/San Carlos campus teach the Apache language.

Education
The San Carlos school district (mostly San Carlos and Peridot communities) currently includes 1350 total Tribal students at the primary and secondary levels at the following schools: Globe school district, 480; Miami School district, 75; Excel Alternative School, 62; and Fort Thomas school district (Bylas community and western Graham county), 512. Other private elementary schools also exist in San Carlos and Bylas.

In 2003, the Adult Education program had 106 students receiving assistance, with 10 completing their GED. Also, in 2003, 50 students funded by the Job Training and Placement Program (44 in training and 6 in direct employment) were enrolled, and historically, over 74 percent of those involved in this program find employment within 5 years of completing the training. 165 students participated in the Higher Education/Scholarship and the Adult Education Programs funded through the Fort Apache BIA Agency. Although 323 initially applied for assistance, there was insufficient funds to support all applicants. Nineteen completed their Associate of Arts (AA) and Bachelor of Arts (BA), and two completed their master’s degree (BIA, 2007) through this program.

Predominant Ecological Types and Significance
The diverse topography and ecology of the reservation includes elevations from 2000-7800 feet with average rainfall ranging from 12-22 inches. Habitats include: Sonoran desert and riparian river habitats, high desert grass and shrub lands, piñon-juniper woodlands, chaparral, oak woodlands, and ponderosa pine, spruce, fir, and aspen forests. Some of the great variety of fauna includes javelina, coos and mule deer, elk, mountain lion, black bear, coyote, jackrabbits and desert cottontail rabbits, bighorn sheep, pronghorn antelope, and bald eagle. The endangered species on the reservation also consist of Mexican spotted owl, willow flycatcher, and occasionally, the Mexican wolf, which, when found, is usually removed from the reservation to another location. Residents of the reservation harvest wild food, materials for crafts, and medicinal plants; they cut mesquites, juniper, and pinon for firewood. Community members also harvest the emory oak acorn for acorn stew, and do this off reservation as well as on reservation. The San Carlos Forestry operation logs ponderosa pine forests, and conducts prescribed burning. San Carlos Lake, artificially created by the Coolidge Dam in 1920, hosts several varieties of sport fishes, such as large mouthed bass. Tribal members also conduct traditional ceremonies, such as the Sunrise Dance, at various sites throughout the reservation.

Natural Resource-Based Economic Activities
Ranching
Beginning in the 19th century, tribal members built up herds from cattle granted to them by the U.S. government. The formation of the R100 Tribal Ranch, in 1938, and San Carlos Cattle Associations, in 1954, began the development of cattle ranching that still exists today. Currently, tribally owned and managed ranches include the R100 and IDT Ranches. The Bureau of Indian Affairs (BIA) assists the R100 and IDT ranches in an advisory capacity. Two separate crossbreed cattle ranches, owned individually by 3 tribal members, have recently begun on the reservation.

The R100 Ranch has a long history working with the University of Arizona, including research involving cattle genetics. Currently UA Cooperative extension is working with the ranch on projects involving: implementing their restocking plan, ranch financial management, Hereford registrations, a crossbreeding plan, and cattle reproduction methods. There are 5 cattle associations, made up of 800 members and approximately 5500 head of cattle in commercial Hereford and Hereford cross cow-calf enterprises. The San Carlos Cattle Associations are owned and managed by a board consisting of tribal members who own cattle in each association.

Agriculture
Community members grow squash, gourds, watermelon, corn, and sugar cane in family plots. The Diabetes Prevention program has raised-bed gardens to teach youth from the Boys and Girls Club how to garden. They also construct raised beds to help residents with gardening at the homes of community residents at no cost. The San Carlos Tribal Farm, owned by the tribe and managed by a non-tribal member, grew 469 acres of cotton and 75 acres of alfalfa hay on irrigated lands in 2007.

Hunting, Fishing, and Recreation
Hunting, fishing, and recreation permits sold by the San Carlos Fisheries and Wildlife Department provide revenue to the tribe; this agency is tribally owned and operated. Trophy big game hunting includes a commercial guides’ association (BIA, 2007). Outdoor recreation economic activities include the San Carlos Lake Development Corporation, which consists of a mobile home park and convenience store, another tribal enterprise.
Timber and Fuel Wood Harvest
San Carlos reservation has commercial forestry operations, including a tribally owned sawmill. The San Carlos Apache Timber Products Company (SCATPC) leases the sawmill to Precision Pine of Holbrook, AZ, which is able to produce a comprehensive line of ponderosa pine lumber products. Community members also harvest mesquite and juniper, for firewood and crafts, and pinion pine for pine nuts, as well as emory oak for acorns to use in acorn stew. They also harvest other edible and medicinal plants.

Mining
The reservation has a small open pit peridot stone mine—it is one of the few places in the world where this semiprecious green stone exists. Community members mine the area, but there is no distinct commercial business associated with peridot mining at this time. Agate stones are also mined on the reservation. The tribe owns and operates Gilson Wash Sand and Gravel mine.

Water Resources
The tribe received a large amount of water rights settlement monies related to farming activities. As a result, Tribal agencies and organizations may apply for grants through the Water Rights office for specific projects.

The Apache Gold Casino
Has a Best Western hotel, a golf course that is consistently ranked the number 1 public golf course in Arizona, a restaurant, a convenience store, a convention center, a covered rodeo arena, and numerous types of casino games. Rodeo is greatly enjoyed by the Apache people, and they hold the Veteran’s Day Rodeo in San Carlos, as well as the spring rodeo in the community of Bylas. Many other rodeo events are held at Apache Gold, including the Indian National Finals Rodeo in 2006 and 2007.

Part B: History Of Extension
BIA introduced extension to San Carlos reservation in the 1950’s. Prior to that time, new agricultural technologies were introduced to the reservation population by BIA Reservation Indian Agents. Extension services offered the following:

- Community and Group Meetings
- Joint educational meetings between BIA agents and technicians, tribal members, and other professionals—including visual aids such as “movies, pictures, charts, and flannel graphs” (BIA Manual, 1955)
- Home and Farm Visits
- Method and Result Demonstrations
- Tours
- Fairs and Achievement Days
- Youth Development

BIA extensionists included John Lastly in the 1950’s and 1960’s, and Terry Wheeler in the 1970’s (Richins, personal communications, 2007). The BIA extension program was dismantled in the 1980’s, and University of Arizona extension agents from Gila and Graham counties began to serve the

### Table 1. Major Programs and Primary Collaborators

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<tr>
<th>PROGRAMS</th>
<th>ISSUES</th>
<th>ACTIVITIES</th>
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<tbody>
<tr>
<td>4-H Youth Development</td>
<td>Engaging youth in positive educational and fun activities</td>
<td>Southern Gila County Fair</td>
<td>Gila County 4H</td>
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<td>Maintaining a consistent youth program</td>
<td>GIS Mapping</td>
<td>SC High School</td>
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<td>In-school and After school programs</td>
<td>Natural Resources Practicum Camp</td>
<td>SC Forestry</td>
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<tr>
<td>Livestock and Range Programs</td>
<td>Conservation of range resources used by livestock and wildlife</td>
<td>Educational Campaign series of workshops</td>
<td>SC BIA</td>
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<tr>
<td>Cattle Associations and Tribal</td>
<td>Improvement of cattle production and marketing</td>
<td>Field Trips to V-V Range</td>
<td>SC NRCS and NRCD</td>
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<tr>
<td>Ranches</td>
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<td>Research Ranch and R100 Ranch</td>
<td>SC Forestry</td>
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<tr>
<td>Community Gardening and</td>
<td>Encourage local food production as a hobby and promote healthy lifestyles</td>
<td>Workshops and activities such as:</td>
<td>SC Boys and Girls Club</td>
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<tr>
<td>Landscaping</td>
<td>Promote beautification on the reservation</td>
<td>- Nature Day Camp</td>
<td>SC Diabetes Prevention</td>
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<td>- High School Ag</td>
<td>St Charles Elementary School</td>
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<td>- Junior Master Gardener</td>
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The Extension Indian Reservation Program (EIRP) began in 1992 in San Carlos, and was established to serve Native Americans through 1862 Land Grant colleges, such as the University of Arizona. This program provides a full time extension agent and a half time staff member, plus a budget for travel and operations, on each reservation where the USDA-CSREES established and funded a project. Former agents include Linda Kelly (early to mid 1990’s), Prunell Charley (1998-1999), and Victoria Wesley Randall (2000-2001). The current agent is Dr. Sabrina Tuttle, who has served at San Carlos from 2003 to the present. Agents provide programs in agriculture/natural resources, 4-H youth development, and also selected programs in community development and family and consumer sciences. In 2006, the EIRP program underwent a name change to the Federally-Recognized Tribal Extension Program (FRTEP) to give it more visibility in the national political arena.

Successful Educational Delivery Methods

**Hands on and experiential learning, including**

- Workshops which include direct observation and practicing of techniques with live animals, plants, or other materials for demonstration of principles
- Field Trips with time for focus group type discussion afterwards; Training site on the reservation, or one day field trips off the reservation
- Basic computer workshops and training for a particular topic (i.e. ranch financial management, GIS mapping)
- Long term focus group formation for planning and implementing complex projects (i.e. livestock emergency response planning)
- Separate Advisory Committees for agriculture/livestock and 4-H Youth Development, including tribal members and agency staff

**Other Types of Methods**

- Presentations about cutting edge topics, with time for round table discussion, where everyone gets to speak about what they learned, how to use it, problems concerning the topic, etc.
- Print materials such as short newsletters or fact sheets
- Handouts at workshops that provide basic information
- Video/DVD
- Apache Radio program for outreach, advertising events
- Cable TV and Moccasin newspaper for advertising events, newspaper for documenting programs

**References**


