Hopi Agriculture in the Changing Physical and Social Environment

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Hopi Reservation

- **Main Reservation**
  - 1.625 million Acres
- **Moencopi**
  - 61,000 Acres
- **Hopi Tribal Ranches**
  - Deeded 175,441 Acres
  - State Fee 182,857 Acres
Historic Village Sites within the Hopi Tutsqwa
Hopi Recent Points of Time

• 1882
  – President Chester A. Arthur issues an Executive Order setting aside 2.6 million acres around the Hopi mesas for the Hopi and ‘such other Indians as the Secretary of the Interior may see fit to settle thereon.’

• 1887
  – The General Allotment Act or Dawes Severalty Act (24 Stat. 388) is implemented which proposed to allot Indian land to individual Indians; also forces Indian children to attend boarding schools and separates families.

• 1894
  – Hopi chiefs submit a certified petition requesting that the federal government transfer the legal title to their lands to the Hopi people in common rather than allot individual Indians parcels of land.

• 1906
  – Influence of federal actions to force assimilation causes Hopi village of Oraibi to divide into two political factions, resulting in the Oraibi split.

• 1910
  – Eleven 20-acre allotments created near Moencopi village.
Demographic info

- 1891 - 1,996
- 1910 – 2,100
- 2010 - 15,016
Hopi Villages

- Currently there are 12 villages
- Oraibi village was established around 1100 AD
- Shungopavi Village moved to its current site about 1680. The old village site was established between 800-900 AD. A Spanish Mission was once established at the old village site.
- Spanish removed in the pueblo Revolt of 1680
Village of Oraibi, 1910
Founded about 1100 AD
Second Mesa - Sipaulovi Village
Walpi – First Mesa
Sources of Moisture
“AMONG the many gifts that the white man received from the American Indian, maize is undoubtedly the most valuable. In the mythology of the Indian this cereal occupies a central position as the most important gift of the gods.”

G. N. Collins

*Botanist, Bureau of Plant Industry, U. S. Department of Agriculture*

“Had we taken the trouble to learn and appreciate the Indian's discrimination in the choice of varieties, the differences in flavor and adaptability to different methods of cooking, we would not have assumed this valuable human food to be useful chiefly for the nourishment of our domestic animals.”
- G. N. Collins
1914
Traditional Hopi Agriculture

• Average Yearly Precipitation is 8” – 12”
• Dry Farms –
  – Dependent on rainfall
  – Ak-chin type fields
  – Trinchera farming
• Irrigated Farms – Moenkopi Village
• Terraced Spring Gardens
  – Hotevilla, Bacavi, Wepo, Talahogan
Technology used for Farming

From 2003 Hopi Farmer Survey:

* Farm mostly by hand........28.8%
* Use tractor to prepare the land, and plant by hand.................54.5%
* Farm mostly by tractor........10.6%
Who helps you plant?

- One helps plant
- Relatives of same gen
- Relatives of a young
- Relatives of an older
- Friends help
- Planting parties
- Younger and older relatives
- Gratitude with friends

Percent:
- 40
- 30
- 20
- 10
- 0
What do you do to assure a good crop?

- Don't do anything
- Change where you plant
- Use manure
- Pray a lot
- Pray your heart in water
- Catch weather and pray
- Mechanical: scarp the land, pray

Percentages:
- 30%
- 20%
- 10%
- 0%
Selling of Corn On and Off of Hopi

Do you sell your corn on the Hopi reservations?

Do you sell your corn off the Hopi reservations?
Fig. 13. Cultivated fields in the Hopi country, shown by solid black areas.
Hand Planting Corn
FIGURE 13.—Silt catchment in rocky arroyo at the second Mesa of the Hopi Indian villages. Illustrates the painstaking efforts of the Hopi in the way of agricultural land utilization.
Moenkopi

Springs provide irrigation water for the summer

Image from 1870's
Hopi cornfields at Moenkopi
Coconino County, Arizona, Echo Cliffs quadrangle. August, 1914.
Moenkopi Allotments

- Eleven 20 acre allotments.
- Make Hopi into commercial farmers
- Population increased and farm plots got smaller.
- Most allotments were divided among heirs, usually no will was done.
- Highly fractionated allotments and the BIA did not keep up on the probates.
- Some allotments could have 50 or more heirs.
Wepo Springs – First Mesa
Hotevilla Terrace Garden-Third Mesa
Hotevilla Terrace Garden-Third Mesa
Hotevilla Village
From:
Climate and Accelerated Erosion in the Arid and Semi-Arid Southwest,
With Special Reference to the Polacca Wash Drainage Basin, Arizona

Thornthwaite, C.W.,
Sharpe, C.F.S.,
& Dosch, E.F.,
USDA Technical Bulletin 808
1942
Assimilation was the policy of the Federal Government
USDA Programs

• Many of today’s USDA programs are not designed with tribal input.
• There are many different types of Indian land
• Hopi is Tribal Trust Land, the Federal Government is the owner
• EQIP provides cost share for various practices such as water line, cross fencing, etc.
• Larger projects can be too costly for Hopi
• Access to commercial credit is difficult and many are not willing to take on financial risks
• Some USDA personnel have not explained how the contracts work, contract language is difficult
In 2007, the National Agricultural Statistics Service (NASS) complete the first comprehensive survey of Indian agriculture ever done. The results of the census of showed an 88 percent increase in the number of American Indian farmers (79,703 more than in 2002). Prior to the 1990 Farm Bill each reservation was counted as one farm and USDA funding is based on the number of farms in a state. States with large Indian populations such as Arizona, New Mexico, and Oklahoma have been undercounted and underfunded.
Ways of Knowing
Tribal communities know their environment
They know their culture and social environment

“Native peoples must be informed, persuaded, and educated into wanting the lifestyle of mainstream Americans. By using this perspective, a Dine who chooses to tend sheep and live traditionally will always be counted as an impoverished person.”

Navigating ways of knowing:
Finding collaborative space in community development research
Teresa Trumbly Lamsam and Cornelia Butler Flora