

Rethinking Food Policy and Governance on Arizona Reservations to Reduce Food Insecurity Through Leadership Theory

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Framing the Sustainability Challenge: Food Insecurity

Approximately 690 million around the world are unsure of where their next meal will come from. In the United States, 1 in 8 people suffer from hunger, while on the Native American reservations 1 in 4 people are food insecure.



Fig. 1. Indigenous sustenance farmer in Moenkopi, Arizona picking apricots. Source: Cronkite AZPBS Photo by Robert Tann/News 21

Scope of the Problem

Fig. 2 and 3 demonstrate that the areas with little to no farmer's markets are more often than not located within Native reservations.

80% of all Arizona farms are tended to by Native Americans, though hardly any of this land is used to grow their own food (Murphree, 2017). Many farms operated on tribal lands are leased out to other farmers off the reservations for economic gain or those managed directly by Native Americans sell their products commercially, leaving them with less locally-grown food further straining impacts of food insecurity.



Fig. 2. Map of Arizona Indian Reservations source: https://universitysecratory.arizona.edu/sites/default/files/native_peoples_of_arizona_map_0.pdf

Fig. 3. Map of food deserts throughout the state of Arizona source: <https://azdhs.gov/gis/az-food-deserts/index.php>.

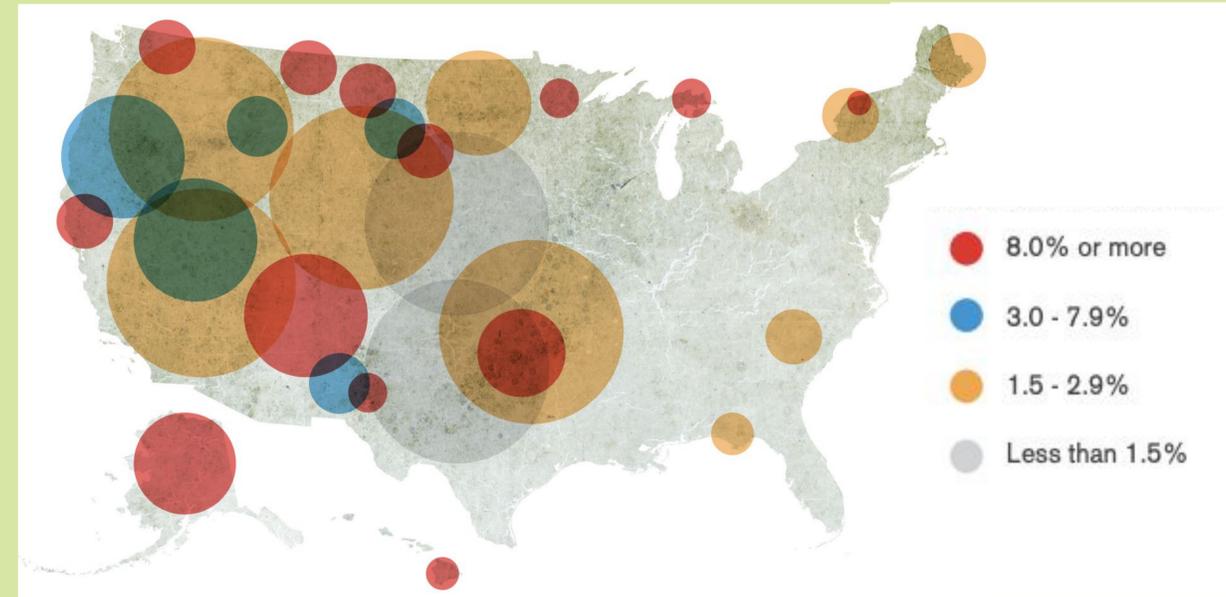
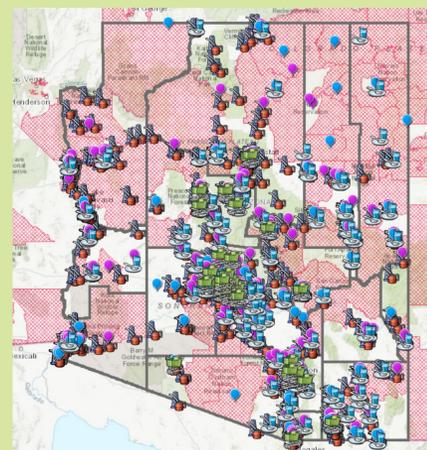


Fig. 4. Map visualizing the Percentage of Rural Native Americans in the U.S. -- note the high numbers in Arizona. Source: https://nativeamericanagriculturefund.org/wp-content/uploads/2020/10/NAAF_NativeFoodEcon_Spread.pdf

Deficits in Food System Leadership

- Few amounts of farmers markets and grocery stores on Indian reservations
- No existing formal connection between tribal food policy leaders and State of Arizona food policy leaders to foster mutually beneficial communication and collaboration
- Lack of Native representation on Food Policy Councils; out of 6 AZ food policy coalitions, none focus on food for reservations (Pinnacle Prevention, 2017)
- USDA defines farms by the amount revenue they bring in and not by their ability to produce food for communities (Whitt, 2021)



Recommended Solutions

Participatory Leadership

- Ensure Native American representation in food policy and governance for the State of Arizona
- Create policy tools to hold these practices in place
- Host tribal leaders in food policy at the State of Arizona government to bridge gaps in trust, governance, and knowledge between the two groups

Humanistic Management

- Change food supply chain management in Arizona to allow Native communities to take what they need from what they grow before selling it to others
- Place the needs of the people creating the food at the forefront of food supply chains instead of treating them as regular consumers at the end of the supply chain
- Center educational resources about healthy meals and promote culinary regeneration within Native communities to change the unhealthy food culture that has developed since government programs provided poor quality and unhealthy rations (Zah, 2020)

Potential Limitations

Each tribe varies in:

- Population
- Land area availability
- Access to resources

This can lead to an increase in the amount of time necessary for effective policy development and decision-making.

Certain norms exist around food culture and people's relationship to it, including negative ones that currently tie Native Americans to low quality food, poor aid programs, etc--that can be difficult to change and work against (Press, 2019).

Some Native American farmers could be so dependent on the income they make from selling their goods that they cannot even consider taking some for themselves before selling it elsewhere.

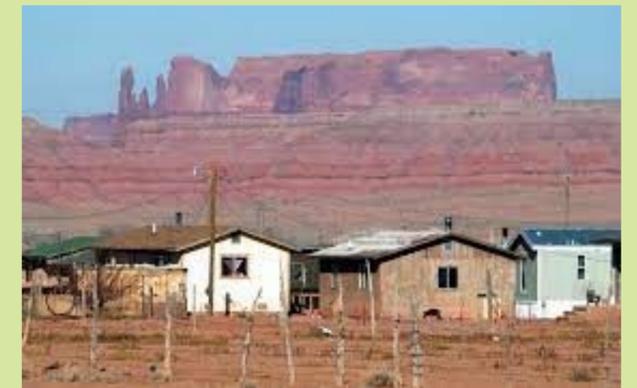


Fig. 5 Homes on Navajo Nation reservation source: <https://www.wbur.org/hereandnow/2017/01/02/mismanagement-funds-navajo-housing>

References

- Murphree, J. (2017). Amazing facts about Arizona agriculture on tribal lands. *Arizona Farm Bureau*. <https://www.azfb.org/Article/Amazing-Facts-about-Arizona-Agriculture-on-Tribal-Lands>
- Pinnacle Prevention. (2017). A Snapshot of Arizona food policy coalitions: Strengths and opportunities. https://www.pinnacleprevention.org/uploads/9/0/3/3/90331111/arizona_food_policy_coalition_report.pdf
- Press, F. F. (2019, September 06). Oh how sweet it isn't: Navajo president bans candy at parade. Retrieved from <https://kutv.com/news/local/oh-how-sweet-it-isnt-navajo-president-bans-candy-at-parade>
- Whitt, C. (2021, January 6). Farm Structure. Retrieved from <https://www.ers.usda.gov/topics/farm-economy/farm-structure-and-organization/farm-structure/>
- Zah, S. (2020, September) Arizona Indigenous Foodways Yearbook 2020. Retrieved from <https://www.tempe.gov/home/showdocument?id=85616>



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Source: <https://images.squarespace-cdn.com/content/v1/518ea9e4e4b0eb1ecff22776/1436808222468-HDNFQQUE0E7NXNB4VWU0/Maize>



Framing the Sustainability Challenge: Food Insecurity



Fig. 1. Indigenous sustenance farmer in Moenkopi, Arizona picking apricots.
Source: Cronkite AZPBS Photo by Robert Tann/News 21

- Approximately 690 million food insecure (United Nations, n.d.)
- In the United States, 1 in 8 people suffer from hunger (Move for Hunger, 2018)
- On Native American reservations, 1 in 4 are food insecure (Move for Hunger, 2018)
- Apache County, AZ
 - Navajo nation
 - Zuni
 - Apache
- 30% food insecurity (42% children) (Move for Hunger, 2018)

Scope of the Problem

- Food insecurity:
 - Poor food distribution
 - Lack of nutritious food
- Fig. 2-3: Areas with few farmer's markets—located within Native reservations
- 80% of all Arizona farms tended to by Native Americans (Murphree, 2017)
- Farms operated on tribal lands:
 - Leased to non-reservation farmers
 - Native Americans farmers sell commercially



Fig. 2. Map of Arizona Indian Reservations
source:
https://universitysecretary.arizona.edu/sites/default/files/native_peoples_of_arizona_map_0.pdf

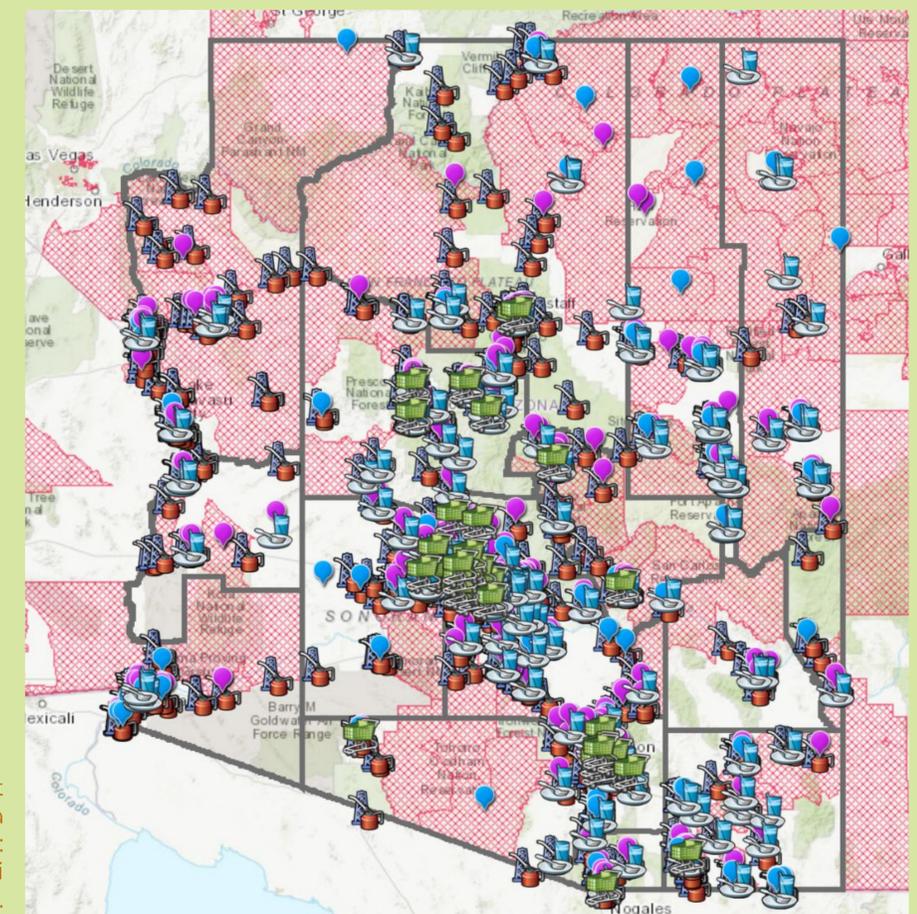


Fig. 3. Map of food deserts throughout the state of Arizona
source:
<https://azdhs.gov/gis/az-food-deserts/index.php>

Deficits in Food System Leadership

- Food policy and food system decisions are not made at local/community level
 - 2018 Farm Bill(Seeds of Native Health)
- USDA defines farms by the amount revenue they bring in and not by their ability to produce food for communities (Whitt, 2021)
 - Disincentivizes community gardens and smaller local farms
- Human/social capital values are not incorporated into the cost of food (Kathleen Merrigan and Pavan Sukhdev)

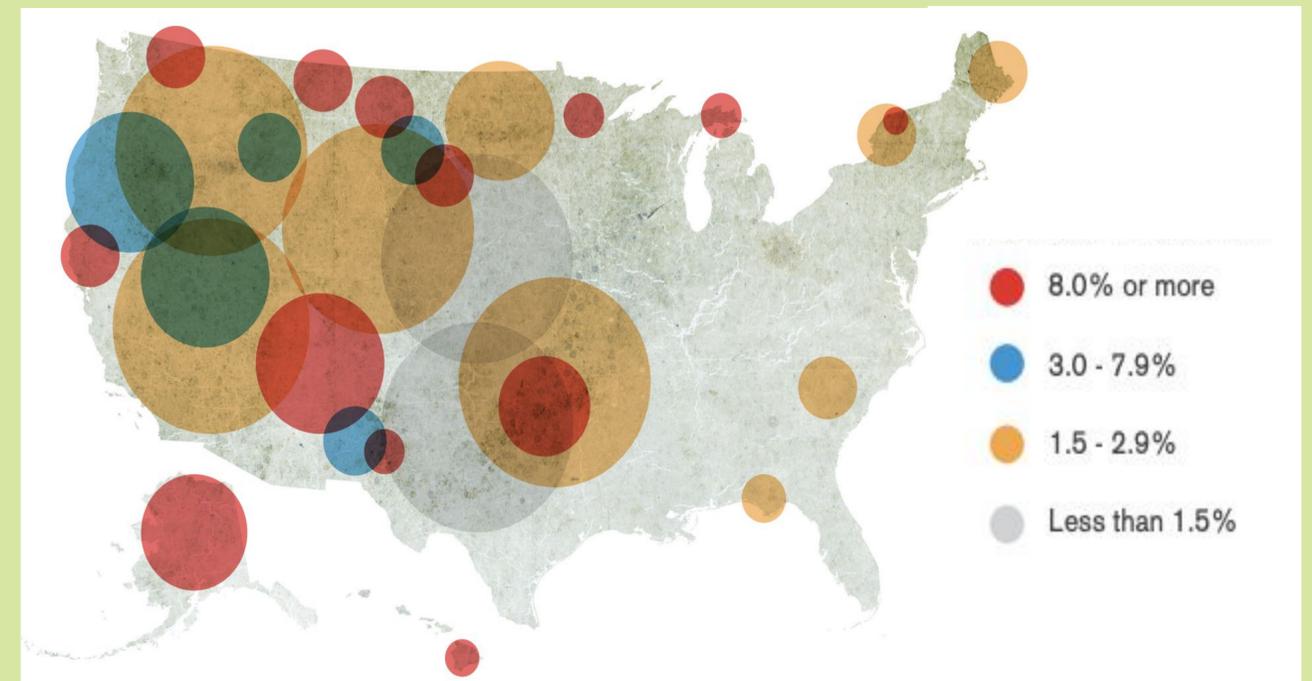


Fig. 4. Map visualizing the Percentage of Rural Native Americans in the U.S. -- note the high numbers in Arizona. Source: https://nativeamericanagriculturefund.org/wp-content/uploads/2020/10/NAAF_NativeFoodEcon_Spread.pdf

Deficits in Food System Leadership

- Few farmers markets/grocery stores on reservations
- No connection between tribal and State of Arizona food policy leaders to foster mutually beneficial communication and collaboration
- Lack of Native representation on Food Policy Councils
 - Out of 6 AZ food policy coalitions, none focus on food for reservations (Pinnacle Prevention, 2017)
- Maricopa County Food System Coalition (MarCo) 2020 Comprehensive Food System Assessment found large quantities of misrepresentation in food system groups.

Recommended Solutions

Participative Leadership

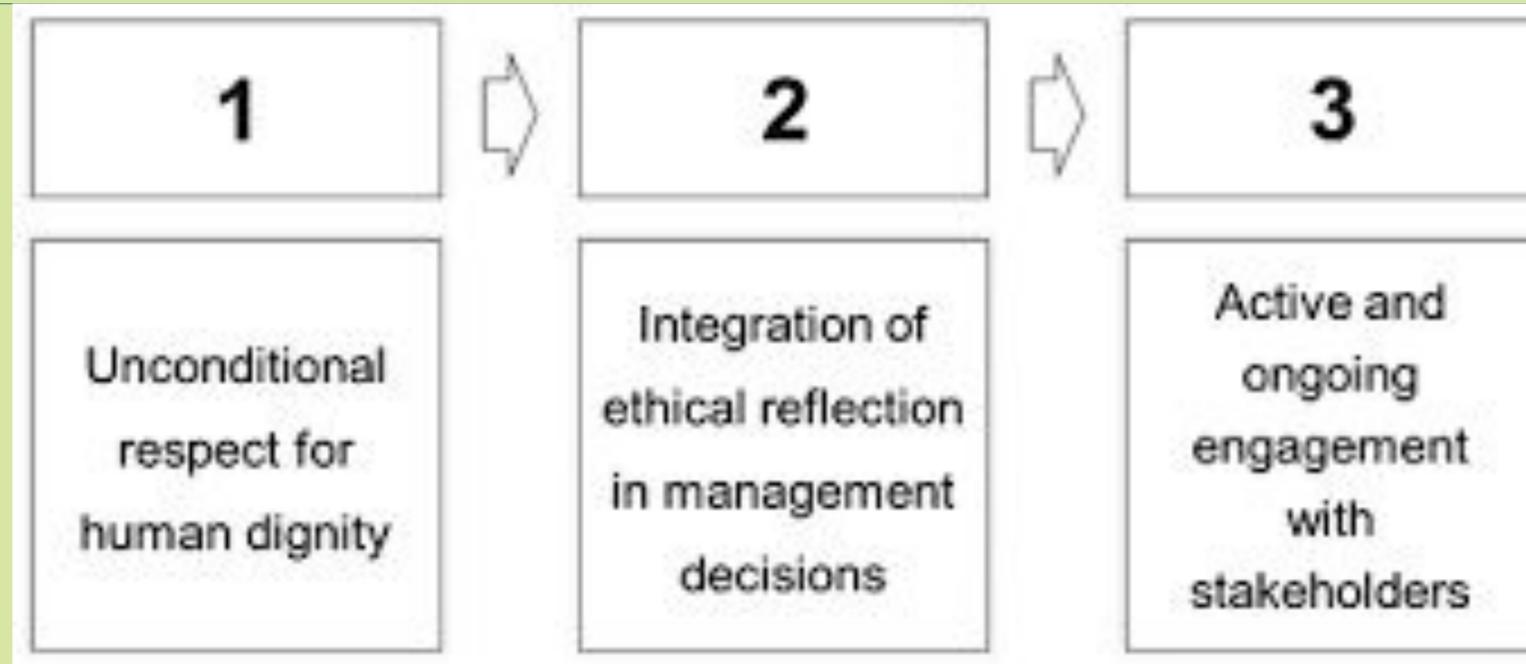
Placing the decision-making process and power in the hands of a group that disregards hierarchy to foster inclusion and democratic participation (Western Governors University, 2021)

- Native American representation at the State of Arizona government for collaborating rather than ordering (First Nations Development Institute, 2013)
- Create policy tools using sustainability leadership and the value that Native American communities present with this
- Host tribal leaders at State of Arizona government to bridge gaps in trust, governance, and knowledge
- Collaboration with local native food organizations such as Native Health (n.d.).



<https://unsplash.com/photos/zv2tXjbDqg8>

Recommended Solutions



https://www.soka.ac.jp/files/jo/20170419_140205.pdf

Humanistic Management

Finding value in and managing to support the value of things that intrinsically benefit people as human beings rather than viewing them as part of an economic system that commodifies them (Herrmann and Rundshagen, 2020).

- Paradigm shift to emphasize human value
- Alter food supply chain management to favor Native American farmers
- Place Natives at forefront of food supply chains
- Educational resources
 - Healthy meals
 - Culinary regeneration
 - Change unhealthy food culture that has developed from government programs providing poor quality and unhealthy rations (Zah, 2020)

Potential Limitations

- Each tribe varies in:
 - Population
 - Land area availability
 - Access to resources
- Increased time necessary for effective policy development and decision-making



- Norms exist around food culture and relationships to it
 - Negative: ties Native Americans to low quality food, poor aid programs, etc.
 - difficult to change (Press, 2019)
- Native farmers are dependent on the income from selling their goods, they cannot consider taking some for themselves

Fig. 5 Homes on Navajo Nation reservation. Source:
:https://www.wbur.org/hereandnow/2017/01/02/mismanagement-funds-navajo-housing

Conclusion

As we work to inspire hope through innovative solutions,
we must remember that it is the people in leadership
positions that truly limits us...

- Peter Schlosser

References

- First Nations Development Institute. (2013). American Indian Leadership: Strengthening Native Communities and Organizations. https://www.firstnations.org/wp-content/uploads/publication-attachments/American-Indian-Leadership_0.pdf
- Herrmann, B. & Rundshagen, V. (2020). Paradigm shift to implement SDG 2 (end hunger): A Humanistic management lens on the education of future leaders. *The International Journal of Management Education*. 10.1016/j.ijme.2020.100368
- Hurth, V. (2021, October 23). Speaker for the “Unleashing the sustainable business--Why Purpose is fast becoming the future of business and is not just a fad! Part I” at the ILA annual conference in Geneva, Switzerland. *Cambridge Institute for Sustainability Leadership*
- Move for Hunger. (2018). One in 4 Native Americans is food insecure. <https://moveforhunger.org/one-in-4-native-americans-is-food-insecure>
- Murphree, J. (2017). Amazing facts about Arizona agriculture on tribal lands. *Arizona Farm Bureau*. <https://www.azfb.org/Article/Amazing-Facts-about-Arizona-Agriculture-on-Tribal-Lands>
- Native Health. (n.d.). Food program. <https://www.nativehealthphoenix.org/services/resources/food-programs/>
- Pinnacle Prevention. (2017). A Snapshot of Arizona food policy coalitions: Strengths and opportunities. https://www.pinnacleprevention.org/uploads/9/0/3/3/90331111/arizona_food_policy_coalition_report.pdf
- Press, F. F. (2019). Oh how sweet it isn't: Navajo president bans candy at parade. Retrieved from <https://kutv.com/news/local/oh-how-sweet-it-isnt-navajo-president-bans-candy-at-parade>
- Western Governors University. (2021). What is participative leadership? <https://www.wgu.edu/blog/participative-leadership2102.html#close>
- Whitt, C. (2021). Farm Structure. Retrieved from <https://www.ers.usda.gov/topics/farm-economy/farm-structure-and-organization/farm-structure/>
- Zah, S. (2020). Arizona Indigenous Foodways Yearbook 2020. Retrieved from <https://www.tempe.gov/home/showdocument?id=85616>