DINÉ BI' IINA’:

PERSPECTIVES OF PARTICIPANTS IN THE NAVAJO RAM EXCHANGE

By

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A Thesis Submitted to The Honors College
In Partial Fulfillment of the Bachelors degree
With Honors in
Animal Sciences

THE UNIVERSITY OF ARIZONA
MAY 2011

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Overview of the Ram Exchange Program

In 2000 the Dineh Bi’ Ranchers Roundtable of the Navajo Nation partnered with Heifer International and the United States Department of Agriculture (USDA) Rural Development Plan to improve the genetic quality and management of sheep herds on the Navajo Nation. The program was designed to address the sustainability of livestock production in the area. Sheep producers of the Navajo Nation face certain challenges including low wool productivity, low wool market price, and the challenges of raising livestock in remote, arid locations (Keifel).

The groups involved in the Ram Exchange Program, recognizing the economic and cultural significance of sheep production, designed it to improve the livelihoods of Navajo sheep farmers through improved rearing and marketing of sheep. They have since distributed over 100 Rambouillet and Columbia rams to different families throughout the region. They also provide some educational and veterinary support to farmers within the program. The families that participate in the program were selected by local grazing committees and extension agents who work with livestock producers of the Navajo Nation (Bollen interview).

Statement of Purpose

Livestock improvement is a complex and dynamic process that involves cooperation among many parties. In implementing programs such as the Ram Exchange, feedback and adaptation are critical to furthering program goals. This project is an investigation of the different components of the Ram Exchange program—from administration to individual farmers—to explore the program’s implementation. The program was designed as a development initiative and therefore needs to be investigated on certain criteria including:
motivations for participation, practices adopted, practices rejected, interpretations of “livestock improvement”, perceived benefits of participating, and suggested improvements.

This project is not a formal review but rather a collection of interpretations of the Ram Exchange from different perspectives that raise important questions for the future of the program. The following is a series of interviews from an extension agent responsible for coordinating the program, a local grazing committee member who administered the Ram Exchange in her district, and two participant families from within that district. They answered questions relating to their farming methods and experiences with the program. Their feedback is a sample of input that is critical to the modification, continuation, or even discontinuation of the Navajo Ram Exchange.

**Perspective: Area Extension Agent**

Dan is an employee of the Navajo Department of Agriculture. He serves as an extension agent, currently working primarily with sheep farmers. Dan has been heavily involved in the recruitment of resources for the Ram Exchange as well as administration of the program. He is involved with the Dineh Bi’ Ranchers Roundtable, the group responsible for many livestock improvement initiatives, including the Ram Exchange (Bollen interview).

**Start Up and Securing of Funds**

The Rancher’s Roundtable began in the 1990’s as an initiative for sheep improvement. They sought ways to increase sheep quality and marketability throughout the Navajo Nation. In order to understand how to best meet the needs of individual producers, the Roundtable surveyed 180 households about their livestock production. They then used this data to secure a grant from the USDA to initiate a “Ram Exchange Program”. This would involve swapping high quality
rams for lower quality rams across the Navajo Nation in hopes of improving flocks and getting producers to utilize more productive breeds (Bollen interview).

In 2000, the Rancher’s Roundtable distributed its first 50 rams to families who had been involved in the survey process, with more rams to follow in subsequent years. Around this time, Heifer International—a nonprofit that works to improve the livelihoods of farmers around the world—expressed interest in the program. They had been heavily involved with agricultural extension in the area and offered to provide support to the Rancher’s Roundtable. They agreed to facilitate extension meetings to help teach sheep management practices to participants in the Ram Exchange in order to increase the success of the program (Bollen interview).

**Program Objectives**

Dan and the members of the Ranchers Roundtable recognized that many of their constituent farmers were not producing sheep with income in mind. Sheep were just “something they had” (Bollen interview), and they may have periodically sold animals to their neighbors, but they were not considering the market. At the time of implementation, many farmers were selling wool for $0.05 per pound—well below the market price (Bollen interview).

The Ranchers Roundtable sought to create a cooperative of Navajo sheep farmers that produced quality, uniform animals. In order to do this, they hoped to convert sheep farmers to Columbia and Rambouillet flocks as well as implement sound management practices such as vaccinating and ear tagging. They also strived to secure high prices for their constituents in order to make sheep farming sustainable and maybe even profitable (Bollen interview).

**Management Decisions**

The Rancher’s Roundtable recognized that most of their program participants were raising Navajo-Churro sheep—a prevalent breed in Navajo farming population with a reputation
for poor wool quality. They selected Columbia and Rambouillet rams (all came from out of state, mostly Colorado) primarily for their value as wool producers and secondarily because of their carcass quality. Each ram was introduced into a flock for one breeding season, and each year following the initial year the rams were rotated to new flocks. The resulting flocks are a mix of Churro and the introduced breeds, which Dan believes gives them more adaptability than purebreds because of the hybrid vigor that the animals possess. The hybrids also have far better wool quality than the Churros produced. Throughout the first years of the program, Dan collected wool samples from participant flocks to send to Colorado State University for evaluation, thus documenting the improvement of sheep within the Ram Exchange (Bollen interview).

The program managed both wool and lamb sales with the bulk product from all of the producers. Dan says that the first year of lamb sales was an important step in demonstrating the value of the program—they sold lambs to Texas, Oklahoma, and other out of state buyers for $130 per hundred weight as opposed to $10, which is what many farmers had received at the local market in prior years. As a part of marketing wool, the Rancher’s Roundtable created two shearing crews. The shearers received training and equipment so that they could serve the local sheep producers themselves and not rely on outside help for shearing (Bollen interview).

The Ram Exchange also includes a stipulation coined by Heifer International as “Passing on the Gift.” This stipulation requires that with each breeding season, families who were using a program ram choose a lamb to give to a family or friend, thus perpetuating the process of regional sheep improvement. The farmers selected for this program were those who had participated in the initial survey and who (according to Dan) showed some initiative and interest in improving their operations. Interactions between these farmers and the Rancher’s Roundtable
varies based on location—some of them are in direct contact with the association and others work more closely with their local grazing committee, as is the case with the focus district of this investigation (Bollen interview).

**Program Challenges**

Since implementation in 2000, the Ram Exchange has faced many setbacks. Dan found that many of the families who received rams did little to care for them, and their state of health when he went to collect them was dismal. “I actually cried,” (Bollen interview) he admitted. He attributes their situation to many things including disease from lack of vaccination (which the program taught to administer), drought, and lack of concern for the animals. The drought situation leads to universally poor grazing conditions in the region, but people respond to this differently. Dan points out that no matter what breed of sheep a producer has—even the slightly more drought-adapted Churro—when forage is low, supplementation with hay is necessary. If people are not willing to pay for the hay or travel to buy it, the sheep suffer. This seemed to be the case with some of the program participants (Bollen interview).

“Passing on the Gift” never quite came to pass as imagined. Dan states that “mentalities differ from place to place” (Bollen interview), but in general many people did not donate an animal to others, something that he attributes to greed. He also felt that some people’s lack of engagement with the program was a result of family pressure; if certain members of the family or extended family did not see value in any aspect of the Ram Exchange, then even a producer who desired to participate in the program was not able to fully engage (Bollen interview).

The shearing crew also suffered defeat after implementation. The first year Dan sees as a success, but by the second year the newly trained workers did not wish to continue. Dan admits that shearing is hard work and takes a certain amount of passion. He himself shears for most of
the families in the program and reports that nobody is shearing their own animals (Bollen interview).

According to Dan, the greatest setback, and the reason that the Ram Exchange is currently at a stand still, is that one of the coordinators of the Ram Exchange embezzled program money. She secretly sold program assets and withheld wool checks from constituent farmers of the program. Since she was caught, the Rancher’s Roundtable has been dealing with a lawsuit against her. They were fortunate to have insurance that allowed them to pay back producers who were short changed immediately, but Dan regrets that “the program is scarred” (Bollen interview). As a result of the theft, many constituents have lost confidence in the entire initiative (Bollen interview).

**Modifications Post-Implementation**

The most pressing matter for Dan was to deal with families who were not taking care of the rams they received. After rotating the original stock of rams for three years the program planned to purchase new animals, but they were concerned about giving them to producers with poor records of caring for their animals. Dan was looking for people who “wanted them, who were progressive, who weren’t looking for a handout” (Bollen interview). He had many one-on-one meetings with producers to try to understand what resources they needed to be successful or decide if they would no longer be incorporated in the program. Dan never denied anybody membership if they felt that they could improve. For some, he assigned a grazing committee member to serve as a guide and resource. The cases which involved unsupportive family members led the Rancher’s Roundtable to establish the ewe program component (Bollen interview).
The association donated fifty ewes to youth in the families that were participating in the Ram Exchange. Dan felt that if older members of the family could see the quality of the sheep firsthand then they would be more apt to adopt the practices encouraged by the association. The animals were introduced through the youth to encourage their involvement in sheep production and perpetuate the industry. Unfortunately, Dan felt that this program did not yield the results they hoped for, and once again, very few families passed on offspring, leading to the death of the ewe component to the Ram Exchange (Bollen interview).

After the first five years of the Ram Exchange, the Rancher’s Roundtable decided to shift away from teaching constituents about the importance of ear tagging and vaccination towards teaching them how to vaccinate and ear tag. Up to this point, producers were mostly reliant on extension workers and veterinarians to take care of these tasks that they could easily manage themselves. The monthly training meetings were adapted to reflect this need, although Dan is not sure that it will catch on, being that most of the producers still want others to take care of these things for them (Bollen interview).

**Program Success and Future**

Dan believes that the Ram Exchange has been successful in many significant ways thus far. Over the first few years of the program, the wool scores of the constituent producers rose significantly and became more uniform. The Rancher’s Roundtable sold wool in Gallup, New Mexico for over $1.80 per pound, compared to the $0.05 that many producers had been accepting. The quality of their product had reached the point that they were able to market internationally, including to New Zealand and Australia. Before putting a hold on the program, the association was trying to market their wool to Pendleton Woolen Mills in Pendleton, Oregon where many traditional Navajo robes are produced. They hope to eventually have these robes
produced with Navajo wool. Additionally, Dan would like to see a slaughter facility opened on the Navajo Nation where they can begin to process “Navajo Sheep” for distribution in casinos nationwide (Bollen interview).

Unfortunately, the administrative scandal has put a hold on the progress of the Ram Exchange. In many ways it has pushed back success that has already been achieved—especially in terms of buyer and constituent confidence. “So we’re back at square one now!” (Bollen interview) admitted Dan, but they are planning to continue the work that they began so many years ago. In fact, the Rancher’s Roundtable reconvened on April 22, 2011 to make plans to move forward (Bollen interview).

Perspective: A Local Grazing Committee Member

Jennifer is a member of a chapter grazing committee. The committee is a governing body assembled to monitor and administer grazing practices in the area. They convene monthly where district members can present business relating to grazing permits including splitting permits, transferring permits, and lending grazing rights. The committee is also responsible for connecting district members with extension education and providing support for their livestock. Upon the initiation of the Ram Exchange program the committee became involved with administering the program locally. Jennifer has been heavily involved with the Ram Exchange in her district (Castor interview).

Family Selection and Oversight

In this particular district, the Rancher’s Roundtable allowed the grazing committee to select which families would receive rams. When asked about how the families were selected, Jennifer explains that being involved with the producers one-on-one allows her to know exactly
who would make use of the gift and who would not. Jennifer makes regular home visits to an assigned number of farmers, many of which she has known for years. She noted specific selection factors, like that some families are raising the animals purely as a hobby and would not invest in their improvement. Other families take poor care of the animals that they have now, so they would probably do the same with the ram if they were to receive one. Ultimately, the committee selected seven families to receive rams and sent their information to the Rancher’s Roundtable on the surveys that Dan was administering (Castor interview).

The participant families were also encouraged to attend the extension meetings to learn better management practices to further improve their flocks. At the end of the first year of the program, the participants gave their rams back along with one of their offspring to be distributed at the discretion of the Rancher’s Roundtable. Jennifer reports that in her district the “Passing of the Gift” was a success—it was an expected part of the program locally. Also, the rams used in this district stayed within the district as they rotated between households. Throughout the length of the program Jennifer continued to visit Ram Exchange participants as well as her other district members. She also keeps count of how many sheep families have after each lambing season and how many total pounds of wool are harvested during shearing (Castor interview).

Local Challenges

Although the program in this particular chapter had many successes, it did experience many of the pitfalls mentioned by Dam. Jennifer reports that despite her careful selection, there were certain families that did not take care of the rams as hoped, causing illness, malnutrition, and even death in some cases. She was very frustrated with the state of some of the rams, noting that the neglect she saw was preventable (Castor interview).
Jennifer also mentioned that the time she poured into her grazing council duties was becoming a bit much, but that this would soon be remedied because she was retiring from her job and devoting more of her time to these duties. However, leaving her job meant restriction of her communication access—her place of work was where she held an email account and was within cell phone range, unlike at her home (Castor interview).

**Relationship of Local Grazing Committee to Total Program**

As a member of her local grazing committee Jennifer is heavily connected to the Ram Exchange Program administration. She attends meetings with the Rancher’s Roundtable and is involved with the dissemination of training in her district. Jennifer is in regular contact with Dan, who visits her district to shear sheep as well as assist with other needs. In the case of Jennifer’s district, the responsibilities of selecting program participants, monitoring their flocks, and moving rams are administered by the grazing committee (Castor interview).

**Testimony of Participant Family**

This Ram Exchange participant is actually Jennifer’s mother, Ellen. Ellen has been raising sheep since the age of five, which amounts to a lot of experience in her ninety years. She lives with Jennifer in the same area as two of her other children and multiple grandchildren. Between them, the family has over thirty ewes and a new crop of sixteen lambs. Ellen became involved with the ram exchange nearly ten years ago and has received a ram annually since then (Cooper and Nelson interview). The following information is from her, her daughters Mary and Jennifer, and two of her granddaughters.
Overview of Family Production

Ellen raises sheep on the 164 acre allotment of her deceased mother. Her mother passed away while Ellen was still young, and her grandparents told her, “These sheep are your mother—if you take care of them, they’ll take care of you” (Grahm interview). She attributes all that she knows about raising sheep to the lessons of her grandparents. Mary said, “She always tells us that she was raised by sheep!” (Grahm interview) She raised cattle and goats at different points, but has always been most faithful to her sheep (Harvey interview). Ellen’s granddaughters learned to take care of sheep from their mother, Jennifer, and from Ellen. They said that Ellen calls a couple of the sheep theirs, but that they know they really belong to Ellen (Cooper and Nelson interview). Jennifer’s sister has a smaller flock than Ellen that is kept separately. When it comes to caring for the sheep, Mary says “There’s all girls here! Only the ladies will work” (Grahm interview).

Ellen and her family utilize a few of the year old lambs each year for meat, but she is most concerned about the wool that she hand cleans and uses for weaving. However, these days Ellen’s eyesight is too poor for weaving. Ellen used to raise Churro sheep, but she is unsure now if she has Columbias or Rambouillets (Harvey interview). Mary believes that they are not making any money from the sheep, but acknowledges that they are significantly intertwined with the well being of Ellen (Grahm interview). Jennifer said that the sheep bring her mother stability, and “As long as she’s healthy, I don’t care how much hay I buy!” (Castor interview) Ellen is the most significant caretaker to the sheep, although she does require help in her old age. Mary says that no one else is quite qualified according to Ellen, who will follow others around and correct their mistakes (Grahm interview).
Ellen’s daily chores related to the sheep are extensive. Every morning she checks on her flock, refills their water trough, and—in light of drought and poor grazing conditions—feeds them hay and possibly corn and silage depending on the season. She then lets the sheep out to graze, keeping the lambs back until they reach six months of age. The family dog accompanies the sheep, but Ellen also frequently sits outside watching over her flock. In the afternoons she calls for the sheep to come back to the corral where she feeds and waters them again (Harvey interview). It’s not easy to separate Ellen from her sheep—her family notes that even long trips to town are difficult because she worries about the flock (Grahm interview).

Although Ellen is the primary caretaker to the sheep, the rest of the family carries out many responsibilities. Jennifer drives to New Mexico to buy hay for the animals, and she is responsible for many of the management decisions (as outlined later on). One of Ellen’s daughters castrates new lambs and docks their tails, and the daughters and granddaughters help administer vaccines as well as choose old animals to cull each year. Additionally, the family sometimes plants grass seed in the area to create forage, butchers sheep for home consumption, and transports animals as needed. Similarly with the other flocks, outside help is used to shear the flock annually (Cooper and Nelson interview, Grahm interview).

**Challenges to Sheep Production**

The most significant challenge to producing sheep in this area is the wind. The wind pushes around the topsoil so much that forage growth is difficult, even when drought is not a factor. The low forage production forces them to buy hay from the outside, usually from as far as 120 miles away in Gallup, New Mexico. The family must also haul water from a local spring that is running low as of late. The wind picks up in April, meaning that the family must shear their sheep before this point to prevent excess dirt from saturating the wool. However, there are
usually very cold days still to come, leaving the sheep vulnerable to the cold weather. Despite all of these factors, the family still feels that the area is home and they are therefore rooted (Grahm interview).

Secondary to wind, there is concern about predators and government restrictions. The area has a high number of feral dogs, coyotes, and rumors of the occasional bobcat. Ellen noted that some people will drive off with sheep if they are left unguarded, which gives her further motivation to keep diligent guard of her flock (Harvey interview). The sizes of flocks are also strictly limited by federal regulation and grazing permits—this year Ellen has to get rid of half of her lamb crop because of governmental concern over land carrying capacity (Grahm interview).

The final challenge to sheep production in this family—more related to the future than present—is the lack of interest of the coming generations in raising sheep. Ellen has tried to spread her knowledge and passion to her children with some success, but her grandchildren show no interest in raising sheep themselves (Harvey interview). Mary attributes this to the amount of work involved in caring for the animals. The grandchildren are mostly grown at this point and have re-settled in other cities (Grahm interview).

**Engagement with the Ram Exchange Program**

Approximately ten years ago Ellen went to an extension meeting in Sanders, Arizona where she heard about the Ram Exchange program. They promised to improve sheep quality and lambing rates, so Ellen decided to join. Later, Jennifer became involved in the program, then one of her sisters, then her aunt. Every year for ten years Ellen has received a new ram (both Rambouillet and Columbias) and has given back a ram in addition to a “Passing on the Gift” donation of either one ewe or two lambs (Harvey interview).
Ellen attends training meetings twice a year in New Mexico where they give her useful information about sheep management. She remembers learning about the importance of vaccinations, something that Jennifer and her granddaughters now help with (Cooper and Nelson interview). She also learned about ear tagging and now receives a premium for ear tagged animals. Ellen feels that she learns important things at every meeting, and there hasn’t been any information that she disagrees with. In addition to information about raising sheep, Ellen mentions that the extension staff at the meetings has been offering other helpful tools such as windmills for pumping water to those who need them (Harvey interview). Although Ellen is learning a lot at these meetings, her granddaughters and Mary admit that Jennifer is the one implementing most of the changes being that Ellen is so old and unable to perform many of her old chores (Cooper and Nelson interview, Grahm interview).

Since becoming a part of the Ram Exchange, Ellen has produced greater revenue from her wool. She hires Dan to shear her sheep each year, and she is able to sell the wool for $1.00 per pound as opposed to the $0.05 per pound that she used to get. This increase in price is due partly to the improved quality of her wool and partly to being part of the cooperative (Harvey interview).

**Results of Ram Incorporation**

Although there is some confusion about what breeds of sheep comprise the flock, there is no doubt in the eyes of the family that they have a much stronger, healthier flock. Since incorporating the exchange rams they are lambing many more sets of twins. Ellen notes that the lambs don’t “stumble around when they’re born” (Harvey interview), something that she attributes to them being stronger. The granddaughters have also noticed the improved viability of the lambs, specifically mentioning their size. They also agree that the wool quality of the
flock has improved dramatically since transitioning away from the Churros (Cooper and Nelson interview).

**Testimony: Participant Family That Has Left the Program**

Samantha Sr. and her daughter Samantha Jr. are members of Jennifer’s grazing district. They own a flock of thirty-one Rambouillet and Churro sheep as well as several cattle and horses between the members of their extended family (Begay interview, Selles interview). The following information is from interviews with Samantha Jr. and Samantha Sr., the primary caretakers of the sheep and former Ram Exchange participants.

**Overview of Family Production**

Samantha Sr. has raised sheep her entire life. She began herding Churros with her parents when she was only four years old. Upon marrying her husband, Samantha Sr. began to care for her flock of Rambouillets while maintaining her Churro flock separately. Samantha Jr. is now a partner in raising sheep with her mother. They transitioned from Churro sheep to a flock consisting entirely of Rambouillets, but since 2006 they are once again breeding Churros because of their more tender meat, viability in the environment, and their longer wool that Samantha Sr. prefers for weaving (Begay interview).

Samantha Jr. and Samantha Sr. use sheep for both wool and meat. They periodically consume sheep from the flock at home and sell one or two to local families. The wool is used at home in weaving by Samantha Sr. Over the years she has sold wool at local trading posts (which are now closed) and at other markets, but she primarily cleans and spins the wool herself to create rugs and Navajo robes (Begay interview). She is not as involved in weaving lately because of an injury. Samantha Jr. says that they would like the sheep to be a source of income,
but their grazing permit limits them, and she sees more potential in improving her cattle. At this point the sheep are more of a hobby than part of her livelihood (Selles interview).

The property where the sheep graze grows an adequate amount of grass, but water is sometimes an issue. The family installed a windmill to pump water for their flock, but it is away from the prime grazing land. Samantha Jr. and Samantha Sr. keep their animals penned until the grass comes in late in the spring. They feed hay and provide salt licks to the penned sheep. The women keep tally counts of how many sheep they have, their pedigrees, and the vaccinations they have received (Begay interview, Selles interview).

**Challenges of Sheep Production**

Samantha’s family faces many management challenges while raising sheep in their area. The sheep are raised through open grazing, so periodically sheep wander far from home. They also face predator risks from stray dogs and the occasional coyote, and about every other year they suspect that an animal is stolen from their flock. Of these, both Samanthas agree that the most significant problem is stray dogs (Begay interview, Selles interview).

In addition to struggling with predators the family wrestles with marketing of wool and meat. As mentioned before, Samantha Jr. and Samantha Sr. prefer raising the Churro sheep, but there is little market for Churro wool outside of home use. They report receiving $0.10 per pound in markets as far away as Gallup, which barely covers the cost of gas to transport the wool to market. In order to use the wool at home or add value to it they must clean and spin the wool, which is a very labor-intensive process. The family would also like to market meat, but the Navajo Nation does not have a slaughter facility. Samantha Jr. is frustrated by the lack of marketing vision within her community and her own family; she recognizes that it is much easier
to sell an animal at the local auction as a quick source of cash, but it brings a much lower price than the animal is actually worth (Begay interview, Selles interview).

The only other problem that Samantha Sr. mentions is the labor involved in caring for rejected lambs. In these cases, the family must bottle feed the babies, requiring much time and attention (Begay interview).

**Engagement with Heifer International and the Ram Exchange**

Samantha Sr. became involved with Heifer International initiatives long before the Ram Exchange program. In the 1990’s, she joined a local gardening group that caught the attention of a Heifer International representative. Heifer International liked the way that the participants of the gardening group practiced their own version of “Passing on the Gift” in that any participant was able to use the communally owned farming equipment so long as they donated a bag of seed back to the group. The Heifer International employees encouraged Samantha’s group to apply for a grant from their organization. They submitted their first grant application in 2003, but faced three years of modification before being approved in 2006 (Begay interview).

The first grant paid for livestock—including Churro sheep—and the subsequent two grants from Heifer International paid for training resources and other equipment for the gardening group. Samantha Sr. received Churros from Colorado, while some group members received chickens, llamas and cattle. The grants from Heifer International paid for many training resources (from Colorado State University and Northern Arizona University) to benefit the gardening group. The meetings where held at the local chapter house every three months where members learned about soil testing, forage management, shearing, vaccination, and animal nutrition. They also received gardening tools, irrigation equipment, a chording machine, and a cattle chute (Begay interview, Selles interview).
Samantha Sr. reports that they outlined their plans for passing on livestock in the grant application, anticipating that their seventeen members would quickly impact forty-two people. Both Samanthas agree that they surpassed this anticipated impact because of the number of outside producers who joined their training meetings (Begay interview, Selles interview). Samantha Jr. also mentions that other similar groups were not able to continue, “Passing the Gift,” but her group continues to follow through with this commitment even now in the absence of oversight from Heifer International. She notes that more than just producing quality animals, “Heifer’s concern was how we could sustain ourselves in the process” (Selles interview) This led them to provide marketing workshops throughout their trainings to encourage entrepreneurship in livestock production (Selles interview).

In 2008, Jennifer called Samantha Jr. and told her to come by her house. When she arrived she found a pen of Rambouillet rams and was allowed to take one for the breeding season with the stipulation that it would be returned along with a ewe the following year. Samantha Jr. received three rams over the course of three years, but the final ram died before it was returned (Selles interview). The family reports that the ram was sick when it arrived, and they are unsure of the ultimate cause of death. The Rambouillets were kept separately from the Churros before the family decided to stop participating in the program and emphasize Churro production (Begay interview, Selles interview).

During the years of their participation the Samanthas interacted very little with the Ram Exchange Program. They chose not to attend the training meetings offered through the program because of all of the information they had acquired from other Heifer International meetings (it is unclear if these meetings were actually Ram Exchange meetings). They considered selling wool in Sanders because they heard about the prices that were being offered for wool from a buyer
from Australia, but they preferred the Churro wool for their own use. Over one year ago, both Samanthas went to a Ranchers Roundtable meeting to investigate the possibility of selling their Churro wool for a higher price. They found that the Australian buyer at the time was only willing to take wool from specified shorthaired breeds, so they were unable to sell their Churro wool at a profit. Also, in order to sell to the Sanders market, they would have to accept half of the money up front and wait for the other half. They are not comfortable with this considering that the program recently collapsed due to embezzling of the second payments of many wool checks (Selles interview).

Samantha Jr. recalls that every year Jennifer collects a tally count of sheep on their property and asks for the total wool weight for the flock (Selles interview). When asked if she passed on an animal to a neighbor or friend Samantha Sr. replied, “I just gave it to them (the grazing committee) and I don’t know what they did with it” (Begay interview)

**Ram Incorporation and Decision to Cease Participation**

Samantha Jr. and Samantha Sr. felt that the Rambouillet rams did not perform as they expected. They yielded small, weak lamb crops the first two years, and the third ram did not breed their sheep. They also felt that the Rambouillets rejected too many lambs, suffered more health defects because of being less-adapted to the harsh environment and having “weak bones”, and ran away much more often than the Churros (Begay interview, Selles interview).

Ultimately, Samantha and her family ceased participation in the program because of the poor performance of the Rambouillets and the potential they see in raising Churros. Samantha Jr. claims that Churro wool is better for horse blankets, rugs, and other products that require sturdy construction. At this point the family has very few Rambouillets left and will continue to focus on the improvement of their Churros (Begay interview, Selles interview).
Conclusion

It is evident from this small sample of Ram Exchange participants that motivations and opinions vary greatly amongst constituents. In public articles, Heifer International emphasizes the cultural significance of sheep to the Navajo people as well as their central role in financially supporting producers. However, it seems that many of the actual participants in the program do not rely on income from sheep production. On the administrative side of the program, Dan and Jennifer strive to improve the uniformity and marketability of a larger body of animals, whereas individual concerns—as seen in the case of Ellen—may be related to other aspects of sheep production. The Ram Exchange has provided clear benefits, but it is also wrought with administrative and practical challenges. This sample of input raises some important questions about the design and implementation of the Ram Exchange.

Measurement Criteria and Evaluation

As is the case with many development initiatives, little data is being collected from this program. The constituent farmers are asked to keep broad figures such as lamb tallies and total wool weight, but they do not monitor lambing rates, death rates, or growth rates of their stock. The program did include checking wool quality, but that alone is not enough to gauge the improvement of a flock. The Ram Exchange would benefit greatly from collecting more detailed data of their participant flocks. Also, they should keep detailed records of lineage to ensure that as animals are passed around from property to property they are not at risk of inbreeding.

The Ram Exchange itself as a development initiative has not been evaluated. Whatever development criteria the program is trying to meet—financial gain, household engagement in agricultural extension, sustainability of sheep production, etc.—needs be measured up front. It is
difficult to gauge the value of the Ram Exchange in regional development when these measurements do not exist.

**Who Can Participate?**

The way in which producers are selected is an important consideration in this program. As mentioned by Dan and Jennifer, Ram Exchange participants were selected based on their perceived ability to succeed in the program. This is an excellent strategy for creating regional improvement, but it also may exclude potential participants who would benefit most. Those excluded from the program include farmers who are unable to care for their animals because they can’t afford feed supplements and substitutions, demonstrating their financial need. The program leadership needs to ask itself: is success measured by the magnitude of the impact, or who is reached? If their concern is the latter, then they need a model that engages the most dismal farming operations in the area. Also, the program is completely dependent on the expertise and fair assessment of potential members by Ram Exchange staff. As long as good people are in place, this strategy can be insightful—but replacing leadership in the future will require careful selection and training.

**Constituent Buy-In**

Participants in the Ram Exchange have joined with varying levels of buy-in to the program. In the cases mentioned by Dan, individual farmers that were recruited were those that showed motivation and interest in flock improvement. In the case with the Samanthas, Jennifer was in charge of recruiting them into the program based on their production history and not on their own interest in receiving a ram. It would be valuable to evaluate the motivation of participants in the program who chose to join as opposed to those who were recruited. In this case, the Samanthas felt very little connection to the Ram Exchange—partly because they were
not satisfied with the rams they received. They also seemed to know very little about the administration and workings of the program and thus were not aware of its goals and objectives. Their experience may represent the experience of other farmers who were selected to participate but were not motivated to engage fully in the program. The Ram Exchange should promote its objectives to constituents to incorporate them into the mission of the program and thus increase their will to work towards the desired results.

One aspect of the Ram Exchange that has shown some potential but requires more buy-in is “Passing on the Gift.” Ram Exchange participants were expected to donate an animal back to an official who would transfer it to another family, disconnecting the donor from the recipient. Samantha Sr.’s gardening group approaches the matter differently; each family that donates an animal chooses the recipient and creates a contract that states that the family does not actually own the gift until they themselves have donated offspring to another family (Begay interview). This style of management is not completely replicable in the context of the Ram Exchange because the families do not own the rams, but there may be value in allowing participants to pass the animal on to a family of their choosing. This has the potential to increase their confidence that the animal is being put to good use, maybe even in the home of a friend or family member.

The fact that participant families do not own the rams was repeatedly cited as reason that their hosts did not care for them (Bollen interview, Castor interview). In the current model, this problem will persist. The only way to eradicate this flaw is to somehow hold constituents accountable for the well being of the animal without discouraging them from participating. Securing a small deposit for “ram rental” is an option, or families could take ownership of rams that are rotated during the breeding season but that return to their original home afterwards. This
way each family is responsible for an animal and holds others accountable for its care, but the area gets the benefit of the genetic diversity that lending the rams to one another will bring.

Finally, constituent buy-in is at an all time low because of the administrative scandal. Up to the point of the embezzlement, the Ram Exchange had produced tangible results in terms of wool quality improvement and better wool prices. However, one blemish—especially one as public and egregious as this—has the potential to mar the entire program. At this point, the Ram Exchange should focus on winning back constituent confidence by putting safety measures in place to prevent future robbery.

**Future Objectives**

Besides working through current issues, the Ram Exchange needs to begin incorporating other aspects to serve its constituents in the future. One potential improvement would be the creation of the long-awaited slaughter facility. This would make the marketing of “Navajo Sheep” possible and allow individual families to garner extra income from their flocks. In conjunction with the slaughter facility, the Ram Exchange administration will need to begin emphasizing carcass merit as well as wool quality in their breeding programs. This breeding emphasis should begin now in preparation for the future meat market.

Selective breeding should also be employed to manage genetic diversity. With the rotating of rams and gifting of sheep inbreeding may become a problem, creating the need to carefully monitor sheep lineages beginning now. Also, if the hybrid shorthaired sheep with Churros truly increases sheep viability then producers should be taught how to manage a hybrid breeding program. This is potentially complicated, but if it is as valuable as Dan suspects than it would be well worth the returns.
Finally, the program still faces the problem of disinterested youth. The ewe portion of the Ram Exchange program was designed to serve this need but failed, and there is no other attempt to engage youth in the Ram Exchange in progress. If the failure of the program was mainly attributed to families not passing on the gift, then that may be addressed by the aforementioned strategies. If the program component failed for other reasons than those should be addressed. A new idea may be generated utilizing youth who are currently involved in sheep production. If the Ram Exchange strives to keep Navajo sheep production alive then it must capture the support, interests, and motivations of the next generation of farmers. This may mean modifying how things are done, and it will definitely require a great amount of creativity and work, but engagement of the youth is critical to the future of the Navajo sheep industry

Sheep and Development

Perhaps one of the most important questions when evaluating the Ram Exchange program is this: how much potential impact can improving sheep have on the development of the Navajo Nation? This is a complicated question that leads to another important question: what is development? If development in the context of the Navajo Nation is to mean economic stability, then the Ram Exchange may not be the most direct approach. The families in this study as well as others in their area reportedly relied very little on income from their sheep. Also, the Navajo Nation has a strict grazing policy dating back to the 1930’s when grazing permits were distributed that can only be inherited, not bought. Even transferring grazing rights is complicated! Under this system, producers are not always able to build large operations that could financially sustain their families. In some cases, they may not even have an allotment large enough to run a sustainable livestock business. This is one reason why Samantha Jr. has switched to focusing on cattle production; she feels that cattle maximize the value of her grazing
units because they bring more money than the sheep (Selles interview). In the context of this system, there is a clear restriction on the potential economic impact of sheep production.

However, sheep do have historical and cultural significance to the region, giving birth to the Navajo phrase, “Diné bi’ íina’,” or “Sheep is life.” Producers such as Ellen and Samantha Sr. feel that raising sheep is an important part of their existence, and they work to pass that tradition down to their children and grandchildren. This emotional—arguably spiritual—benefit of sheep production must also be considered as part of development. With this in mind, producing sheep in an economically sustainable, if not profitable way is critical. Caring for the land along with the sheep is necessary to perpetuate this tradition into the future. This program is thus valuable in its ability to help farmers care for the land and allow them to produce sheep at a profit (however small) rather than a loss. The Ram Exchange—although imperfect—is helping to keep the rich tradition of sheep in homes and families across the Navajo Nation.
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* Names have been changed in accordance with the privacy agreement reached between the principal investigator and the Navajo Historic Preservation Department and agreed upon by the interviewees.