# Trip Report: A Productive Safety Net for Northern Kenya's Arid and Semi-Arid Lands: The HSNP+ Program

Kenya: July 21 – August 22, 2008

Traveler: John McPeak

July 21-22: Left Syracuse mid day on Monday the 21st and flew to Nairobi via Detroit and Amsterdam. Arrived Kenya night of July 22nd, was met by Charleston travel at JKIA and was transported to the flats across from ILRI. I was travelling with my wife and three daughters.

July 23-25: Unpacked and periodically met with Andrew at ILRI to discuss arrangements for the trip north. Evenings I worked on the game simulation on my computer to tinker with the design. Slowly the game format was taking shape.

July 26-27: Shopped in preparation for the trip north and rearranged bags getting ready for the drive up by me and the flight up by my family.

July 28: Taken by ILRI vehicle leaving at 6am to Marsabit. Arrived in Marsabit by mid-afternoon. My family flew up so we met up in Karare, my wife's home village about 20 km south of Marsabit town. The team continued on to Marsabit town and I stayed in the village for the night.

July 29: Picked up by the ILRI vehicle in Karare at 7:30, travel up to KARI Marsabit by 8:00. Pin, Andrew and I spent the day playing the game and modifying it to see what worked best. We colored in the ping pong balls, modified the distribution of the seasons, changed the range of starting herd sizes,… All different ways we saw the game needed to be modified to be easy to understand while still conveying the core messages. By the end of the day, we have gotten to a point we were pretty happy with and felt the game was ready to go forward with testing using the enumerators. I returned to Karare for the night, and we were set to begin training the next day. Andrew and Pin worked up some flip chart posters overnight to explain some of the key elements of the game and also came up with the happy face / average face / sad face bottle cap representation of the idiosyncratic luck.

July 30-31: Trained the enumerators in how the game worked. We spent time explaining it in some depth on the morning of the 30th. Much of it was based on Andrew and Pin playing the game in front of them and me writing the results up on flip chart paper. We showed a basic game with differing initial herd sizes and common shocks. We then showed how it worked with idiosyncratic shocks. Finally we illustrated how insurance worked. Pin had some work on the willingness to pay survey that we needed covered, and allocated the late afternoon to this. Andrew and I took some time to think about how we

should run the events in the villages based on what we were seeing in the training. The morning of the 31st we ran the enumerators all through a full game as players so they could see how it worked. Lots of math problems to work out, but slowly they were getting the language down and the idea down. We added in insurance and showed them how it worked. We spent some time stressing how the idiosyncratic shock should help illustrate what kinds of losses insurance could or could not help with. By the end of the day, they seemed to grasp what we were after. I remember telling Pin that my sense of where we were at that point was right on the edge of what was possible and not possible. Andrew developed a form to use to record the play of participants and we got it photocopied and assembled as Pin finished up with her final training steps.

As we did the game in multiple villages on multiple days, I am going to break the time line format and give an overall description of how the day went when we ran a session. This basic pattern was repeated two consecutive days in each community and five communities were visited so there were ten total 'showings'.

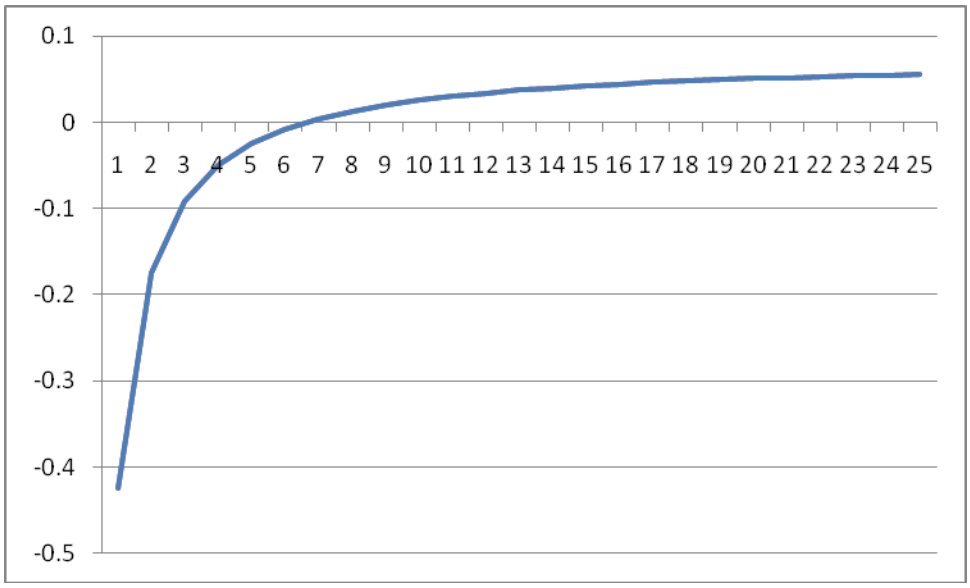
Start time varied by site. In a few cases we were rolling before 9:30, in other cases it could drag out until after 11. We were there between 8:30 and 10:00 in all cases, and tracking down people often took some time.

When we did start, I first thanked them for coming and went ahead with oral consent procedures. In some cases a prayer was offered by the participants to start the meeting. I then spent some time introducing the game and the idea of index based insurance. I described how the PARIMA work, the ALRMP work, and the work we were doing today and with Pin would be combined to generate the details of the real insurance we hoped to offer in the coming year. I noted that this was the first visit, but there would be more. Also, I noted that insurance would be for whoever wanted to buy it when we really offered it, not just the people here today. We stressed that the core of the game was based on our prior work in the area. I said there were two main goals of our work today. First, we were still trying to design this insurance that we hope to offer next year. We wanted to use the evidence we gathered today and in Pin's work to come up with the best design possible. Second, insurance is a new idea. If we are going to ask people to buy insurance, they have to understand how it works, and what it does and does not cover. I explained the basic idea was to take money when times were good and return it when times were bad. I told a story about how my car was damaged after my last trip to Kenya in a storm and how insurance paid to fix it. I said that was easier than what we were trying here since the insurance company could come and look at my vehicle to see the damage but there was no way the insurance company would be coming out to their satellite camps (fora) to check on their personal losses. That is why we were trying to use the satellite images. I showed the VCI graphs on my laptop and tried to explain how these would be used by the actual insurance game. I said which were the high points and which were the low points so they could see how the images matched their memories of conditions. We talked some about the moving stars that they had seen at night being satellites taking pictures and how that could be used. We sometimes had a few questions to clear up at this point, sometimes we moved right on to the game.

I explained the game. I showed them the chips, explaining that a white chip was a head of cattle, a red one a goat and a green one a sheep. In our game goats and sheep were the same value, and 10 of them equaled on head of cattle. I told them they could think of it in terms of traditional exchange, where they said the rate was about right. In the camel sites, I said for our purposes, one head of cattle and four goats equaled one camel (1.4 TLU) which they said was close enough to the traditional exchange rate. I then explained that each season was six months long, and started with a rainy season followed by a dry season. We used the local terms to describe the pairs (Nyernyerwa and Lami odho; Iltumerin and Lami Dorop/ Ganna and Adolessa; Agaya and Bon Agaya). We talked about the need for consumption, which from previous survey work was just under one goat a month. For ease of transactions, we fixed consumption at 5 goats or sheep at the start of each season. This was usually translated as some variant of 'food for the kids'. In a few cases people asked if they could consume less as they saw themselves caught in a downward spiral, which was interesting (we said no). I then showed them the ping pong balls and explained the meanings. There were 5 +20% balls with a crossing pattern drawn on them. These were a really good year (ke sopat oling / akmale dansa). For each head of cattle you had, two goats or sheep were born. Alternatively, if you had ten head of cattle, two more were added. This was illustrated by laying out chips to add to a herd. We then looked at the 7 +10 % balls. This was a good year (ke sopat / dansa). This was the most likely kind of year, and for every one head of cattle you had, one goat or sheep was born. We did the laying out of chips for this again too. Two balls were all blue. These were zero growth balls, where none were added or taken away by the season. This was a bad year, but not a drought. Then there were two final balls. One, half covered in red, was a drought year where 20% was lost (jilali, nkolong, ola). We showed them again with chips how such a year would work. Then we showed them the final ball all covered in red, a very bad drought where 30% was lost (jilali mbaya, nkolong kali, ola kali). We illustrated with chips how this kind of year would work. Expected growth is 7.5% with these values. After answering a few questions and making clarifications, we told them we were ready to start the game.

We first played the game with each table (5 tables, 4 people per table was the usual format) having a herd size determined by drawing one of three knives from a sleeve that covered the blades. A red blade knife meant a 6 TLU starting herd size, a blank one 8TLU, a black blade knife 10 TLU. At each table, we usually had two people helping them with the game. One served as a recorder, the other as a translator / explainer, though sometimes these roles blended some. I floated from table to table in the course of the day checking math and answering questions. For each season, I walked around the room with the bag and had a different participant pull a ping pong ball from a plastic bag. For a complete game this happened ten times corresponding to 5 years. This first run through was rather quick, showing them how the game worked in the most basic form.

The initial herd sizes of 6, 8, and 10 were chosen with reference to the idea of a threshold. Expected growth of 7.5% interacted with the required offtake for consumption in each period. A growth rate of 0.075-(.5/herd size) leads to the following graph of expected growth rate conditional on herd size (asymptotically approaching 7.5%).




It was interesting as we played that people figured out pretty quickly how they could get pulled under. Once people got to about three animals, they started to make jokes about climbing on lorries and heading to Nairobi to become a watchman. They knew that it was just a matter of time before they got washed out and the question became would they make it to the end of the game.

After this first run through, we introduced the idea of individual luck. For this, we had a set of black bags, one for each table, each bag having a white plastic soda cap with a happy face drawn in black (+10%), an even face drawn in blue (0%), or a sad face drawn in red (-10%). We explained how the ball would be drawn, then we would adjust up or down by the value corresponding to the face to get their particular herd size change. We said the faces were representing things like sickness, raids, wild animals, and that these were the kinds of things that insurance would not cover. Only the draw of the ball from the bag could trigger it. We said we would come back to that idea later. I would say people really got into the luck and it generated a lot of laughter / joking around. The enumerators got really good at explaining to people why they had a given herd size change and why it differed from one player at the table to another. In general, these enumerators did a great job and really worked to explain to people how this idea works and how it could work for them – I was really happy with their work.

So we then ran the game again, but this time with each person having their own starting herd size. This had random initial herd sizes, covariate shocks, and idiosyncratic shocks. The balls were drawn one after the other for each season and we recorded what happened. We then took a lunch or a tea break depending on whether we started early or late, and came back again to illustrate how insurance works. We took the values of the faces and balls that were drawn in the last game and showed them how they would have come out with mandatory insurance to the nearest TLU. We began by introducing the black chips and said they were like money. You sold a goat, you got ten black chips. If you wanted to insure a head of cattle, you had to pay one black chip to cover it with insurance for a season. This worked most clearly if a set of white chips was laid out flat on the table and each one was covered in turn by a black chip that was scooped up and taken away. We then illustrated how insurance worked. First I went through all the non-drought balls in turn, showing them that they would only pay at the start of such a

season and nothing would come back to them. It was only the two red drought balls that returned something, and these did so in different ways. The one that was half red, the 20% loss, would give them one goat for each head of cattle insured. This was illustrated by taking a pile of ten white chips, covering them with ten black chips, drawing the red drought ball, removing two of the white chips for losses during the drought, then bringing back 10 goats and sheep chips corresponding to the ten black chip payment. The goats were then transformed into one white chip for a net loss of one white chip. We did the similar illustration with the 30% ball, removing three white chips for the drought loss, bringing 20 goats and sheep, and turning them into two cattle for a net loss of one white chip. I stressed that the bad thing about insurance was that you don't grow as fast during good years since you have to keep selling goats to buy insurance. The good thing is that it brings you animals after the drought hits you. I told them that insurance makes it so you don't climb as high, but you don't fall as far. After making sure people had the basic idea, the enumerators at the tables took them through the same covariate and idiosyncratic shocks seen in the previous game and showed them what would have happened without insurance. This was rather mechanical, but did give them a 'with' and 'without' comparison. In almost all cases it showed you did not fall as far during the drought and ended up better off at the end of the game with insurance due to the combination of insurance payouts and herd growth being an increasing function of herd size. In one case, in Dirib Gumbo, people ended up about the same with and without insurance. This was used to illustrate another possible outcome, and came about because there was no drought until round 8 and it was a 20% drought, and the decreased herd growth in the first 7 rounds due to livestock sales to pay insurance was about the same size as the payout in the drought. This was a good message and one we stressed in other places, but after that I got a bit trickier about making sure a drought hit in rounds 3-5 (sampling without replacement and having the drought balls on top of the other balls when people reached in to draw a ball). I did make sure they understood it was possible that we could go all ten seasons with no drought happening so that you did not ever get a payment, but for demonstration purposes I was heavy handed to make sure this did not happen in the demonstration of with and without.

After getting through this game, we usually took a lunch break or a second tea break, depending on the timing. We came together for one final game. In this game, I explained that you could insure up to the herd size you had. If you want to insure none, some, or all, that was up to you. We stressed that the payoff in a drought would be based on what you insured, not what you had or what you lost if you did not buy full insurance. I pointed out that this would mean that if they did not insure or did not fully insure, they would not have to sell as many for insurance payments, but they also would not get as many back in a drought. I also stressed at this point that the insurance company would really have no way of knowing how many animals they truly had, so this was like that – they stated the number they wanted to insure.

Further, I showed them pieces of paper with numbers 6-10 on them. I had somebody pick one and put it in my pocket. We told them in this game, we would give everybody 100 shillings at the end to thank them for playing the game. However, you could win a cash bonus. If you were above your starting period herd size at the end of the round in my pocket by less than 1 TLU, you won 20 more shillings. If you were more than one but less than two TLU ahead, 40 shillings. For each additional TLU, an

additional 20 shillings was added. After we had done this in a few places, we told them about the maximum and minimum kinds of payments we had been seeing in the other places. We then fielded any final questions and ran one final game. Here I did not tamper with the balls to make a drought happen. In a few cases no drought happened. The analysis that I hope to do soon is to look at patterns of who bought full insurance, who bought partial, who bought none, and how they fared.

After we finished up this game and calculated payoffs, we had a final discussion before breaking for the day. Sometimes this was a longer discussion about how this would really work. We told them we would be coming back with more information as time went by and we would work with them on the details. Questions that came up were where one could pay, would the payout be in cash or in livestock, whether you buy for the year or the season, if you get paid if you pay for many years but not the one with the drought, and what kind of payment range we expected. We usually introduced Pin's work to follow up on this work that would be going on in the next few days. I usually stressed that this was a 3-5 year project that we were starting. The donors were giving us money to both help develop the idea and to help extend the idea since it is a new concept. We would be coming back to explain and work with them on the design and to ensure they understand the idea. But our goal was to have this be something they could do to help themselves when we finished. If we do our job right, there will be no need for donors to help on this in the future; this is something they can do to protect themselves against drought. Sometimes we ended with a blessing or prayer, sometimes it was getting dark and people wanted to get home so we wrapped it up as fast as we could. We would pack it all up and get ready to either move to the next town or run the show again in the same town on the following day. The earliest we finished was 3:30, the latest was 6:30.

My general sense was that people got it. I think as an extension tool, the game was really effective. There were lots of comments about how this game was just like our lives. That was both encouraging and also helped explain why they seemed to grasp it quickly whether they were schoolteachers, herders, nursing mothers, grandmothers….Another notable characteristic of the days was how much laughing and joking around there was. People got into it and though it was a long day with a complicated game, there was a lot of laughing and not all that much grumbling as the day went on towards night. The good luck bad luck draws really got lots of reaction (though in a few cases the red bottle cap went flying across the room after being thrown). They also flicked their hands for me to go away with the red 30% drought ball when it was drawn and covered their eyes. With regard to insurance, there was a sense that they knew it had to be more complicated than in our simple game (and they are right), but if something like this could come, that could be very helpful. There were also frequent requests to keep coming back to explain this thing called insurance, since they were interested but really wanted to get more detail. I told them that we were the researchers, not the insurance people, and that if they thought this was a good idea, go tell people that. If they think it is a bad idea, go tell people that too. We want this to be something that people choose because they think it will help them, and that is why we have come with this idea.

August 1-2: We ran the game in Karare Friday and Saturday.

August 3 we took a break.

August 4-5: We ran the game in Dirib Gumbo Monday and Tuesday.

August 6-7: We left early in the morning for Kargi, ran the game in Kargi Wednesday and Thursday, left the evening of the 7th for North Horr.

August 8-9: We ran the game in North Horr Friday and Saturday. Return to Marsabit the night of the 9th.

August 10th: I dropped down to Karare after shopping in Marsabit and greeting friends. We took the afternoon off.

August 11-12: We ran the game in Logologo Monday and Tuesday.

August 13: We left Marsabit early in the morning, arrived at ILRI late afternoon.

August 14-15: We recovered, got through piles of e-mail, sorted out some finances and did lots of laundry.

August 16: I had some fun and went on a tour of Nairobi national park with my family. We did all the Nairobi tourist thing, which was fun with my kids.

August 17: Visited relatives in Nairobi area.

August 18 – 21: Met with Andrew and began to work out details about what would come next with the project. We had set aside some time this week to meet with Leigh at DFID, but she was on leave. I stopped by and talked to Patti Kristjanson for a while and gave her an update on my work and got some idea of her current projects. I spend some time trying to track down some bizarre accounting issue with ILRI finance where they have suddenly discovered 100,000 shillings that was used for field work by me in 2005 never had the final paperwork filed. Still sorting this out. We met with Ade to talk about arrangements for the vehicle for the next fiscal year and came to an informal agreement that we will follow up on.

August 21-22: Return to the US via Amsterdam and Detroit.

End of trip.