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# Pack 103, Item 4

Type: Interview

March 2016

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# Nomadic people fight fowl pox in Mali

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### Notes to broadcaster

In Mali, nearly 80% of people live in rural areas and rely on growing crops, raising livestock, and fishing. Raising chickens is part of their daily routine. The birds breed quickly, are easy to feed, and bring a profit. Chickens are a “mobile bank” for villagers in Mali; the money they receive from selling poultry helps them cover occasional family expenses.

One of the main challenges with raising chickens is diseases. A large percentage (70-80%) of young chicks die before they are a few months old. And death from disease is common in adult birds as well. One of the most common diseases is fowl pox.

In this script, we meet Barma Ly, the head of a nomadic Fulani household in the Sahel, in the area which separates Mali from Mauritania. Mr. Ly, whose family mainly lives by raising livestock, manages fowl pox with natural medicine and fights to protect a breed of local chicken which he has known for years. But, since Mr. Ly’s medicine cannot solve all problems related to fowl pox, a livestock expert named Drissa Ouattara explains effective treatments for three types of fowl pox. Mr. Ouattara also urges poultry farmers to use hygiene measures such as regularly cleaning henhouses, complying with the vaccination calendar, disinfecting water and feed, and managing pests with effective products.

You might choose to present this script as part of your regular farming program, using voice actors to represent the speakers. If so, please make sure to tell your audience at the beginning of the program that the voices are those of actors, not the original people involved in the interviews.

You could also use this script as research material or as inspiration for creating your own programming on managing fowl pox, other chicken diseases, or similar topics in your country.

Talk to farmers and experts who raise chickens or are knowledgeable about the birds. You might ask them:

* What role does poultry farming play in your area?
* What are the major chicken disease challenges in your area? Is fowl pox common?
* What solutions have farmers and other experts found for fowl pox?
* Is there a natural remedy for this disease?
* How can fowl pox best be prevented?

Apart from speaking directly to farmers and other key players in the local agriculture sector, you could use these questions as the basis for a phone-in or text-in program.

Estimated running time for this item is 20-25 minutes, including intro and outro.

Estimated time for the script, including intro and outro music and interview, is \_\_ minutes.

**HOST:** In Mali, traditional poultry farming for meat production is disappearing as intensive production of broiler chickens and other imported varieties increases. Some farmers and consumers are concerned about the disappearance of traditional breeds. Raising the traditional breed of chicken, known to Malians since the dawn of time, has always allowed rural people to get by during the dry season. It is less costly to raise traditional breeds, with almost no expenses. The traditional breed is also highly resistant to a number of diseases.

Intensive production of imported “broilers and layers” is not affordable for all farmers. Since the quality of these birds is sometimes considered poor by some Malian experts, farmers who do not have enough resources must be careful.

We travelled to Niono, a town in northwest Mali in the fourth region of the country. There, the nomadic Peuhl ethnic group, whose livelihood is based on farming and raising livestock, is fighting to preserve the traditional, endangered breed of chicken. On a fine morning, we made a trip to the Peuhl camp in Tina, a haven for livestock.

**SFX:** SOUND OF VEHICLE, THEN STOPPING, THEN SOUNDS OF ANIMALS, AND FADE OUT UNDER HOST

**Host:** Dear listeners, this morning we will see how nomadic Peuhl farmers are managing fowl pox in order to preserve their traditional breed of chicken. These local chickens are called *farafin chè* in this part of Mali, which means “African chicken.”

Tina is a camp in the Molodo department, about 360 kilometres northeast of Bamako, the capital of Mali. The Peuhl nomadic people who live here move every year after the rainy season, in search of water and pastureland. Families move with all their cattle, sheep, goats, and poultry.

 We are in a seasonal camp of about 30 straw huts that look like upgraded tents. But the place is almost empty. There are only a few old people and children wandering amongst nursing calves. Women are taking care of housekeeping and preparing to cook. We will first meet an old farmer who, from all appearances, should have more experience raising chickens than many of his neighbours.

**Host:** Greetings, father.

**Barma Ly:** Greetings, son.

**Host:** Could you introduce yourself to our listeners?

**Barma Ly:** My name is Barma Ly. I raise livestock and I grow rice in the Molodo region.

**Host:** There is almost nobody in the camp, although we can see it is inhabited. Where have the other people gone?

**Barma Ly:** That’s the way it is here; the place gets empty every evening. Young herders go to the pasture with the animals starting at 1 a.m. They start coming back around 11 a.m. or noon. Mature men go to the field after breakfast, and some go to the Niono market to trade livestock. At a time like this, you can find only old people like us, plus women and young children.

**Host:** Mr. Ly, we can see chickens scattered all over the place. Can you tell us who these belong to?

**Barma Ly:** You could say that they belong to the whole village because each family owns some of them; that’s the way we raise them.

**Host:** Can you distinguish yours from the others?

**Barma Ly:** That’s not a problem at all. Each of us knows the exact number of our chickens, and we can identify each chicken from our poultry yard.

**Host:** How many chickens do you have?

**Barma Ly:** Right now, I own 532 chickens and 212 guinea fowl. These are all from eggs that were laid this year. I have already sold the laying hens. That’s the way it goes: as soon as they’re finished laying eggs, we sell them and we keep the little ones.

**Host:** It is quite incredible that you can raise so many chickens. It must require a lot of time and great effort. What practices do you follow to get this result?

**Barma Ly:** It is not difficult. I do it with my grandchildren. Every morning, before the chickens leave the henhouse, I give them a bit of millet. Sometimes, I give them some broken maize grain or a mixture made of rice and a bit of tree bark. I do this frequently during the rainy season because this is when hens can’t find much food in nature. But at this time of year, they can wander around millet and rice threshing sites and around hulling sites. So it’s less of a problem for us to feed them now, compared to the rainy season.

**Host:** You are a role model for people who raise chickens around here. Can you tell us something about the benefits of raising chickens? This might inspire other people to do the same.

**Barma Ly:** I can’t say enough about the benefits of raising chickens here. There was a time when hens were not expensive at all, so selling them was almost a loss for us. But it is quite the opposite these days. The price per bird can go up to 4,000 CFA francs [about $6.65 US]. So you can imagine how many problems one can solve by selling 100.

And it never stops; we have clients coming to us from everywhere. People come to buy and then resell.

 Sales are not continuous; I sell only once in a while. But I earn everything I need just by selling a small number of my chickens. This income allows me to pay for health problems, trouble with local authorities, or even food problems in case the annual harvest fails.

 I have three hectares of rice in the Molodo region. Ploughing costs, transplanting costs, other labour costs, and input costs for this land—all this is paid for by my chicken sales. That’s worth something to a farmer.

**Host:** What’s your secret for this efficient and high-speed production? Usually, we assume that such success is only for egg-laying hens from abroad.

**Barma Ly:** No secret; just good follow-up. The egg-laying hens from abroad are like egg-making machines. They are costly; they require more expenses and incredible effort to produce good results. This is not at all convenient for us.

The only secret with *farafin chè* is that, when the hens lay eggs, you should never give them to another species like a guinea fowl, a duck, or a turkey to raise. This is what many people do, believing that it will allow the hen to lay eggs again within a short time.

 But this is not good. It causes many chicks to die after hatching, and they often have health problems. Even if the chicks survive, not being raised by a hen can delay their growth and development. Chicks have a tremendous need for a hen’s body heat, which helps them resist climatic and nutritional challenges during their first 40 days of life.

 When you see a hen that produces only a few chicks that survive, you should start by improving its diet. If that doesn’t solve the problem, the problem stems from the fact that, as a chick, it did not get enough body heat to meet its needs. Most chicks cannot survive that situation. I have been doing this job for 17 years, and so I think that I understand many things.

**Host:** Listening to you, it sounds as if raising chickens has lots of benefits and few obstacles. Is that the way you see it?

**Barma Ly:** It’s like any activity in life. There is never any success without an obstacle. In my case, the major obstacle is the different diseases about which we don’t quite know what to do.

For instance, apart from the two main diseases that we experience here every year, in the beginning and at the end of the winter, there are quite a few factors, which put a lot of strain on us.

 First, women here use a product that they call *poroni*, which is more toxic than poison. It looks like fertilizer or granulated sugar, and it also looks like cereal grains sometimes. The women mix it with *djabi* *(Editor’s note: henna*) to blacken their feet and their hands during celebrations. Sometimes, after using *poroni*, they leave some grains on the ground without noticing. As soon as chickens eat these, thinking they are cereal, it’s over. A deathly and contagious disease breaks out on the spot. The disease can spread to almost all the poultry on a farm.

Also, we use a powder against rats and insects which is as toxic as *poroni*. We put a small amount in water and place some in hidden corners of the house or in the yard. When a chicken swallows that water, that’s it—havoc begins.

The best way to control the adverse effects of this poisonous product is educate farmers more so that they can use the product safely.

**Host:** You mentioned that there were a few challenges. What are some of the others?

**Barma Ly:** Can you see that tree over there? It’s full of rats that only come out at night. That species of rat appeared about two years ago.

Some people say they came from Senegal on the train that carries merchandise from Dakar to Bamako. It is a race of rats that feeds only on chicks. We kill some, but it’s not enough.

It is important to track the rats down and destroy their habitat.

Finally, there are external parasites, but that problem is not as serious. As soon as we notice them, we start disinfecting the henhouses and the chickens by treating the walls of the henhouse with petrol or gasoline every night.

**Host:** You mentioned two main diseases that come every year in the beginning and at the end of the winter. What are those diseases?

**Barma Ly:** Newcastle disease and fowl pox.

**Host:** Okay, this show is about fowl pox, which you call *foro*. Can you tell us how it shows itself and what its impact is on your activities?

**Barma Ly:** *Foro* is a disease that comes only during the cold season. Sometimes, the chicks have scabs on the mucous membranes of their eyes, their eyelids, and their noses as early as two or three weeks old. Very often, farmers will see watering due to an infection, which causes inflammation of the mucous membranes. This infection can kill up to 90% of chicks. We also see scabs and skin rashes in young hens five weeks old.

People sometimes say that *foro* comes because of the temperature during the cold season, but I can confidently say that this is not the case. As soon as we notice it in one or two chickens, we buy remedies for the diseases. We mix them with the appropriate vitamins and with a certain amount of water that the chickens can swallow any time. We also give them injections.

**HOST:** What are the remedies for the diseases?

**Barma Ly:** All the remedies that we use against cattle diseases can also been used against poultry diseases; it’s just the dose that makes the difference. I give my chickens injections of what we call *bignè dimi*, which is a remedy for liver disease, but it’s very effective against all animal diseases.

My neighbours sometimes ask me what treatment I give to my poultry, and I tell them. But one must choose the right way of doing it. I do my injections in the thighs; that’s the only secret.

 Oh—I had forgotten to mention another treatment for *foro*. Can you see that tree over there—the one that’s about one metre high? Here, we call it *bangoyo*. It is a tree we use we treat fowl pox.

**HOST:** Can you explain how?

**Barma Ly:** It isn’t complicated. You cut its fruit and you immerse it in the chickens’ water, and the *foro* disease wears off. It’s a tree that only grows well and produces fruit during the rainy season. But we are starting to understand that farmers can use the dried fruit as well as the fresh fruit. So we cut it and save it for *foro*orfowl pox.

**HOST:** Who are your customers generally, and does fowl pox have an impact on customers?

**Barma Ly:** *Foro* is a very disgusting disease that makes you feel like not even looking at the chickens. Apart from the pimples, it causes them a lot of pain on the inside. But it’s not as lethal as some other diseases.

It has never had an impact on my sales because it’s a disease that customers know very well. Most of my buyers are poultry traders, but there are also simple consumers who come from everywhere throughout the year, from Niono and Bamako and other cities. I have one very loyal client who has now become a good friend. He doesn’t need to travel since he’s in the area; he just gives me a phone call to order the number of chickens he wants, and I send them by bus.

**HOST:** Do you need or do you already have veterinary technicians or veterinarians for health care or advice?

**Barma Ly:** I don’t really have any; I do the treatments myself, as I said before. But the loyal client I was telling you about is a veterinarian by training, and he helps me a lot with advice on chicken diseases.

**SFX:** NOISE OF A MOTORCYCLE gets louder, THEN stops

**HOST:** Do you have anything to say to those who want to get involved in raising chickens?

**Barma Ly:** I wish many people were interested in raising chickens. It isn’t only the disappearance of the local breed that’s at stake, but also the total dependence on imports, for both consumption and trading. In order for that not to happen, we must raise people’s interest and improve the conditions for raising chickens with new techniques that are suitable to our current climate, and that reduce disease.

**SFX:** footSTEPS coming on-mic

**HOST:** We have company. Do you know them?

**Barma Ly:** Yes, they are customers.

**HOST:** (TO AUDIENCE) Dear listeners, our visit coincides with that of two of Mr. Ly’s customers, a young man and a woman to whom we will talk about fowl pox. Hello, dear Madam or Miss, can you introduce yourself to our listeners?

**Sanata Traoré:** Hello, my name is Sanata Traoré. I am a chicken farmer and trader living in the town of Niono.

**HOST:** What is the purpose of your visit?

**Sanata Traoré:** I am coming to buy hens and roosters in order to resell them in town. I am here today to buy about 40 chickens that I need to send to a female trader friend in Bamako for her end-of-year sale. Like all poultry keepers and traders, we count on the December 31st celebration to sell large numbers of chickens.

**HOST:** Have you had challenges with chicken trading?

**Sanata Traoré:** Not many. For us, difficulties are usually because of market slowdowns. For instance, if I buy 50 chickens or more and I cannot sell them within a short time, I necessarily become a chicken keeper—because you need to feed them before reselling them. Otherwise, they die slowly, and that’s more than a loss for us.

 Sometimes, I am not able to sell all my chickens on time because I don’t know the chicken market very well yet. Often, when we sell the birds very quickly, it gives us hope that things will be better. But the following week the market starts to slow down again. It is this instability that sometimes troubles us.

**HOST:** Today, we are focusing on fowl pox. Does that disease have an impact on your chicken trade?

**Sanata Traoré:** Fowl pox is a disease that we all know. It is true that sick chickens are unpleasant to look at, and that the disease hurts them a lot, but it has never reduced their value on the market, at least not in this area.

**SFX:** sound of footsteps approaching. exchange OF greetingS between Barma and Sanata.

**HOST:** (TO AUDIENCE) Dear listeners, we will now talk with the man who came with Ms. Sanata Traoré and who, with his backpack, gives the impression that he works with an NGO. (TO SÉKOU KEITA) Hello sir, can you introduce yourself to our listeners?

**Sekou Keita:** My name is Sékou Keita, and I raise chickens and chicks, and I am a farmer here in Molodo-Centre. I am here today to accompany Sanata. But I used to come alone to buy chickens or chicks to raise. I am not a reseller like Sanata, who has clients everywhere in the cities.

**HOST:** Can you tell us how you raise chickens, and what difficulties you have in your profession?

**Sekou Keita:** My home is in a village; it isn’t like here in the camp where chickens are bred in nature with little involvement from the farmer. I put a lot of effort into raising the few I have. I have to build a good henhouse that can resist the rains and the termites; I have to buy manufactured chicken food that is very expensive; and I have to do regular health check-ups whose results are very often negative. In short, raising chickens is profitable, but not like here where they spend almost nothing.

The biggest challenges are the diseases, especially diseases like *foro*, that specialists call fowl pox,and Newcastle. Personally, I don’t really know how to deal with the diseases. I tried all the recommended treatments, but they really don’t do anything. I even took advice from Barma,but it didn’t help. Sometimes, I tell myself that it’s a matter of place or climate. You can see chickens everywhere in nature and they’re very healthy. Back home in the village, you need to spend a lot of money on treatments to keep the birds healthy. That’s the way it is, and we just deal with it.

**HOST:** We are now going to welcome a Peuhl woman who was here before Ms. Sanata and Mr. Keita arrived. Madam, please introduce yourself to our listeners.

**Malado Ly:** My name is Malado Ly. I am Barma Ly’s daughter-in-law, and my family is a livestock-keeping and farming family. We come here every year when the dry season begins, and we go back to the pastureland in the Sahel as soon as the rainy season starts.

**HOST:** We are recording a show on a chicken disease called fowl pox. But before addressing this, it seems like you women are the source of this disease here.

**Malado Ly:** (SURPRISED YELL) How come?

**HOST:** I should clarify that you are causing it without being aware of it. This is about the *poroni* grains that you leave on the ground after using them. Did you know that these little grains can cause damage to chickens?

**Malado Ly:** That’s true; I heard not long ago that as soon as the chickens eat them, the disease breaks out. Maybe many died before we knew this. But now that we know the damage, we are being very careful. I sometimes warn my daughters as soon as they start using it. So, be assured that *poroni* won’t be the cause of death in chickens anymore. That’s over!

**HOST:**  Thank you very much for learning the lesson, Madam. Tell me, do you have any knowledge of fowl pox, the disease that people here call *foro*?

**SFX:** SOUND OF pounDing cereal IN BACKGROUND

**Malado Ly:** *Foro* or fowl pox—everybody knows that disease here. But it causes more fear than harm. It’s very unpleasant, but it doesn’t easily kill the chickens. The disease is more frequent where we live than in villages because we are highly exposed to wind and sun here. But in any case, fowl pox is treated more easily than other diseases. So it’s not a concern for us.

**HOST:** Malado, listening to you, one would think that we shouldn’t worry about fowl pox. Is that true?

**Malado Ly:** Not exactly, but we women also sell a few chickens sometimes in the Molodo market, to cover condiments, fees, and little things for our kids. And we usually sell any chickens with fowl pox; there’s never been a problem with that. It is people from the city who don’t like it. But in the surrounding villages, if people want to buy a chicken, fowl pox won’t prevent them from doing so. The chickens are usually for food, not for keeping.

**HOST:** Dear listeners, we’re coming near the end of our show. But before we conclude, we will hear the opinion of a specialist, Mr. Drissa Ouattara.

**Drissa Ouattara:** Hello, Mr. Gakou.

**HOST**: Can you introduce yourself to our listeners?

**Drissa Ouattara:** I am an engineer in poultry farming with a specialty in breeding and products from the Katibougou Rural Polytechnical Institute for Training and Applied Research, in Mali. I live in Niamakoro, in Bamako.

**HOST:** We are recording a radio show on fowl pox in your area. But first, I wanted to ask you if there are there any specific challenges with traditional poultry farming?

**BARMA LY:** Very often, we notice that when hens cover their chicks during the night, they can accidentally step on some chicks, which then die. Some mother hens also attack chicks and kill them because they do not belong to them. This is why it is recommended to segregate the young chicks into age groups before raising them.

 It’s also important to build a brooding house, make brooder stoves, provide good food, respect the recommended vaccination and treatment schedule, and heat houses if they are not sufficiently warm. It’s especially important that the building is warm—about 24-27 degrees in the first few days of life. After that, the farmer should very slowly lower the temperature until it’s 18-21 degrees by five weeks old.

**HOST:** Thank you. Can you now tell us a bit about fowl pox, what causes it, and how it manifests itself?

**Drissa Ouattara:** Fowl pox is a contagious disease, and it can be identified through visible signs on the bird’s body, depending on the type of the virus.

These signs are classified into three categories. The first is the cutaneous form. In this form, the bird has spots on the head, the beak, the legs, and the whole body. This form rarely kills chickens.

The second is called the diphtheritic form. In this form, the bird hassmall white wounds in the mouth, on the surface of the tongue, and in the upper part of the mouth and throat. These form large nodules that can stop food intake, and kill the bird by blocking its airway. This form is rare, but more lethal than the cutaneous form. Most of the time, this form comes along with an infection of the mucous membrane. This infection is what causes the high rate of death.

In the mixed form, the chicken hasboth kinds of symptoms. The rate of death is quite high in this form.

Fowl pox appears when the birds are between 0 and 8 weeks old.

**HOST:** Can you tell us how the disease spreads?

**DRISSA OUATTARA:** Many factors can contribute to spreading the disease, including direct contact with a sick chicken, and droppings of sick chickens in feed, water, and equipment. This is why it is important to always clean the place where the chickens are raised to prevent the farm from being infected by just one bird. Wind can also contribute to contamination because it transports the virus. Contaminated objects, dead bodies, and infected birds can spread the disease. Street vendors and the baskets in which they carry their chickens should not be allowed in farming areas.

**HOST:** What is the best way to prevent and treat the disease?

**Drissa Ouattara:** There is no specific treatment against fowl pox, but administering 0.3% carbol water, at half a millimetre per adult bird, gives good results.

To prevent the disease, farmers must follow recommended hygiene measures by cleaning the houses every day and regularly disinfecting water and food containers. They must also control biting and sucking insects, such as flies, ants, and spiders, and also external parasites. In general, they need to fight the virus with all available means. Good hygiene allows the farmer to maintain and improve chickens’ living conditions. This ensures good health, housing, diet, reproduction, and general well-being.

Good hygiene is the key to any success in raising poultry, but immunization remains the most effective way to fight fowl pox. People typically say that “prevention is better than cure.” The basic idea is to do regular immunizations.

**HOST:** So there is no cure for fowl pox?

**DRISSA OUTTARA:** No, there is no cure for fowl pox. Only the correct vaccine can

prevent it. This vaccine is administered once a year.

**HOST:** Some farmers care for their chickens without consulting a veterinarian or a specialist in animal husbandry, and they think that any treatments for cattle diseases can also be used for chicken diseases. Some use a tree called *bangoyo* to treat the disease, and think it is the most effective remedy. Do you share those ideas? Do you have any advice for them?

**Drissa Ouattara:** Using *bangoyo* may very well be effective, but personally, I cannot say much because I haven’t tested it yet. As an expert, I do not share the idea that cattle and poultry can benefit from the same healthcare remedies, because cattle are very different from poultry, so the treatments must also be different.

My advice to farmers is that, when they have trouble on their poultry farm, they should always consult with a veterinary technician or veterinarian who is qualified on the matter. This is very important, because poultry farming is a very complex area, and it is so sensitive that you can lose your whole investment with the smallest mistake.

Most importantly, some farmers ignore the fact that not coordinating treatments can build resistance to the vaccine in the future, which could make birds vulnerable to infections from other viruses or incurable poultry diseases. So, in order to avoid jeopardizing everything in the future, it is wise to maintain the appropriate standards for treatment and care.

**HOST:** Do you have any last word about fowl pox?

**Drissa Ouattara:** I would ask all poultry farmers to first, respect hygiene measures, and, second, respect the immunization programs that are sometimes conducted by technicians in order to avoid outbreaks that can cause substantial economic losses. Finally, I thank you for giving me the opportunity to express myself about fowl pox.

**SFX:** FADE IN SIGNATURE UNDER HOST, THEN BRING UP FOR 10 SECONDS AFTER HOST, AND OUT.

**HOST:** Thank you very much, Mr. Ouattara.

Dear listeners, through the voices of our different contributors, we learned about fowl pox, one of the two main diseases that break out annually in northeast Mali, specifically in the Molodo area.

Nomadic Peuhl farmers and livestock breeders living in the area fight fowl pox by following advice from technicians about vaccination and hygiene, and also by using the fruit of *bangoyo*, a small Sahelian tree that grows during the rainy season.

We learnt about the negative impacts of fowl pox, how it manifests itself, how it is spread, and about the appropriate preventive treatments. Most importantly, we learned about its impact on the rural world, and the activities of the livestock keepers, buyers, and resellers.

We thank you for listening to the show and invite you to join us for our next show, when we will focus on another important theme in the rural world.

Thank you for your kind attention and see you soon.

## Acknowledgements

Contributed by: Boubacar Gakou, filmmaker, Bamako, Mali

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**Sources of information:**

Interviews with:

Barma Ly, Sanata Traoré, Sékou Kéita, Malado Ly, Drissa Ouattara, September 27-29, 2015

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