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Transcription of Are we prepared to lose our precious land? community approaches to pasture and cropland restoration in Marigat District, Kenya, 4/3/2012

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BEGIN TRANSCRIPTION

[00:01 - 00:02] Speaker 1: Okay.

[00:02 - 02:13] Clement Isaiah: Okay. Thank you. Okay. Um, good afternoon, all of you, and welcome to my rather, not long, short presentation. Uh, really, what I'm going to do or present is, uh, the work that I did last summer. Um, as you know, when I got the CCC funding, uh, I had both my research work for my PhD., and I also had this project, uh, in terms of trying to identify the community, uh, uh, links and needs as far as conservation is concerned. And so what basically I did is, I had a couple of meetings with community to chat our way forward and what needs to be done, uh, tapping into their local, uh, best known practices and how the, they can make use of a situation that's already looking out of control. And so, um, for those of you who may be not aware, Kenya is that spot, the black spot, which is in the extreme east part of the continent and along the equator. The equator actually divides our country almost where my arrow is pointing. So the equator crosses the country in that middle part. So we are right in the tropics. Okay. So I will, I will spend a few minutes describing about the study area. We actually [unintelligible] within the Rift Valley. Those of you who know the formation of the Rift Valley is that those are fault lines, two fault lines that actually divide the continent and the middle part sunk. And so when the middle part got sunk. And it starts from, I think from Red sea all the way, it joins, uh, lake, uh, Indian Ocean somewhere in Malawi, if I'm right. And so within the Rift Valley, uh, we have a couple of so many lakes that formed because of the accumulation of water from the from the escarpment areas.

[02:13 - 04:18] Clement Isaiah: So the catchment area, the water drained down and a number of lakes were formed. Most of them are salt lakes. And so my project was within the Lake Baringo region, where a community called the Jamos which I'm part of the community happened to live in that area. It's an indigenous community. So already, we are working with indigenous communities. Yesterday, Robyn [phonetic] mentioned about the next projects of [unintelligible] the indigenous. So already, you already have an indigenous community in the, in the jungles where I'm working, because the indigenous are a minority pastoral community in Kenya. So within that area, uh, it's a very hot area. Most of the time the land is dry and um, they practice kind of nomadic pastoralism. But the time, due to pressure of population and change of livelihood and external interference and national policies, they are trying to restrict, uh, the movement of the people. Of course, those of us who are for the management of [unintelligible] lands, we advocate that people should be, law should allow people to move, access the resources, where they are available within temporary and especially as far as that is concerned, if the system is sustainable and the people have to meet their daily needs. So that's where the project is. And so this is just a zeroed in, uh, area. And I work in about four locations, which is uh, Salabani, they are not clear, but uh, Salabani, with the main point down here, uh, this is this the Salabani, this is the Nambo, this is the Kiserian, and we have a new, uh, location called Narwa [phonetic], which was established a few years ago. So it's not been included in the map. I would have inserted but it became so tiny. So just put a number as a representative because it was initially a whole number location. Then they subdivided into new administrative locations. So that is where the area is and where I'm working.

[04:20 - 06:06] Clement Isaiah: Um, it's a very, the picture to the left is that, this area used to be a very, very erosive area. Uh, we have torrential rains and the water from the escarpment poured out and washed most of the soil down to Lake Baringo. And so it's very erosive, and most of the time the land is bare. Bare completely the whole year until when we have rains, either short or long rain, then we have a few annuals. Then somewhere, this plant now called prosopis, where we see in the right, was introduced in the 80's. I'm going to talk something about it. And now, this plant now is spreading and making the land look so green and those people watching some satellite, uh, imagery, they find this a very potential area. The place is growing a lot of vegetation, but that vegetation is the source of misery. It's the source of the problem to the people there. So that's why I was saying now, are we ready to lose our land? People are not ready to leave because they have no alternative. Just behind that picture where you see the gullies, those are the [unintelligible] that would actually follow the in very high speed and sweeps the gullies and everything down to the lake. So there's a lot of erosion. They have tried to control it, but it becomes like, you can see the tree actually is hanging, the roots are all over and even the next, that tree will go, and the next victim, the tree just on top of that side will all be swept and the stuff will just continue. So these are typical, uh, units. That's where we live.

Our houses are very warm, very nice, and the mosquitoes don't really go in and such, though we have a lot of mosquitoes. Daytime, they are cool. At night, they're warm. So you don't have to have any regulation in terms of temperature.

[06:06 - 08:00] Clement Isaiah: So whether it's summer or winter, whether it's rainy or whatever season and also share even the snakes, they live along the edges of the house and you just live with the snakes and you don't worry about them. So that's where we live. And, uh, I had a community meeting, and you can see from those two pictures, women sit on their side and men sit on their side, so you cannot get the two mixing. And we're in a school compound, so we have a couple, some of them are teachers in there. But it was a whole community, uh, meeting that we chatted away for before we went back now to the small group which I was working with. [clears throat] So what's the problem here now? What was the problem that we're trying to sort out in terms of conservation. So, *prosopis juliflora*, which here you call the Mesquite, was introduced in the 80s within that region. In Kenya it was introduced in the 70s. And some of the departments that tie with afforestation realized there is a lot of harvesting of natural vegetation in this area, it's already an area devoid of trees and ground cover. So they decided let us introduce this species to cover the land, reduce soil erosion, both water and wind erosion. At the same time, it's going to provide firewood for the families to save the indigenous trees. And at the same time this tree is going to provide fodder for the livestock. So, therefore, the community they had undertaken some pieces of like [unintelligible] objects where they enclosed it, and the tree was planted. And they watered it until when it established because the place was totally dry, so it could not be established immediately. So they had to draw water and carry, that is to feed and water the trees. The thing was very good, very beautiful. Everyone accepted it was good for sometime.

[08:01 - 10:11] Clement Isaiah: Because from there now to where we could see some ground cover, it was good. Um, and it's a native of South America, Central America and the Caribbean. So the concern was there was a lot of deforestation of the indigenous species and there was concern of desertification, and there was a concern of fuel-wood shortages. So see, this is a solution. This is something that people could, should be able to make use of. And actually we cheered, we clapped and we were so happy. And for about 10-15 years things were very, very good. We were really excited. Um, I think I've already mentioned about the background area. And the area is actually a production for pastoral production systems. And when you say there are limited vegetation cover, but behind the picture is a lot of vegetation. Actually, I took how this specie is spreading all over, and I use as my background to show how the land look like. But actually this land absolutely has no use for these people. You cannot go. You can see, what you see green here is not grass. There are millions of sprouting *prosopis*. This was a school compound where, you can see the power lines.

And this specie blocked certain rivers, and the water now is flooding in people's lands and compounds to an extent that, you can see this. We actually are standing in some standing water. That's the flood water in the school compound. Away from the river, the water now is flooding the villages. Where the people, where they took the pictures was just in front of this, just some raised ground, because already the water is covering and spreading these species all over the land. The grass that they were looking for is totally been killed and suffocated by these species, including the native species we were trying to protect is being suffocated and suppressed by the spread of this *Prosopis juliflora*.

[10:12 - 12:15] Clement Isaiah: And so people are kind of giving up. So some of the, uh, uses they're saying was that *juliflora* has a multiple purpose like fuelwood, fodder, building material, control soil erosion and it does well in such extreme conditions, which is okay it does well. But the issue is it now contradicts the lives of the people. It goes counter because instead of promoting the welfare, it actually turns people now to a difficult situation because they are not used to this. So how are we to practice our livelihood when the land is totally changing, the landscape is changing to a different kind of setup? So what happened is that after 15 years, they realized slowly by slowly the vegetation is spreading to unintended areas. It went to the farm, pastureland, settlement, and other unfriendly activities such as the personal store. If actually, if touch a branch and a thorn pricks on you, it will not, it will just even come out. It's not hard just like a nail or a pin. It will not [unintelligible] into your skin, it will come out. But in the next few minutes, you'll not use that hand for about two-three days. It will be passed, swollen and painful. That, just, just a small hole, just pricking on you like this. So the best thing to do if it does that is, later on people realized if you are pricked, you take the trig, you squeeze the water into where the hole was pricked, it kind of suppress that pain. Otherwise the hand will not be used for the next couple of days because of the pain. So if it happens that it pricked in the wrong place, some people have had their feet amputated because they fell down and pricked in the wrong place and totally destroyed your feet or your limbs. So it is very difficult to work on this species, very, you cannot work on it.

[12:16 - 14:05] Clement Isaiah: What you need to do, if you want to cut down, you must have another maybe long stick that you pull it, I mean, you push it, then you'll be able to cut. Otherwise you cannot go closer. So you must use something like a pole or some hook that you push the leaves or the branches, and then you are able to access somewhere and cut down. And the moment you cut the [unintelligible], the stem, within the one that is left behind, a million will sprout from the side. So it went out of control by 1990s, totally. So, the land is communal. So really to have control became a problem because, I mean, it's no man's land, it's our land, but sometimes no man's land. The theories of community-based natural resources said to take care of this because, the thing is all

over. So everyone's watching and whispering, so you can't want, try to go there. They're spread by water, spread by human activities like movement, traveling vehicles, wind erosion and forage for livestock. Their droppings because they chew the, the, the pods, but the seeds in the stomach in evening drop wherever they live and it's spread all over. Then finally water comes and facilitate more spread. So it just went to every available space. So you cannot even travel. There are area if, if within a bush people kind of make some small paths where to pass. If we separate the two of us by two paths, we may not see each other again. Your path will take another direction and might go, and there's no way you can cross this bush so we [unintelligible] out, you'll not meet again. So you do not know where you are [laughing]. You know there are those bushes you can actually penetrate through. And. Oh, are you on this side? Yeah. Let me come through.

[14:06 - 15:59] Clement Isaiah: Here you can not, you cannot bend like, make it or maneuver inside this, this [unintelligible], there is no way. Your different direction ends, unless we go back or maybe you make it after following up after 10-3 hours somewhere ahead when we are out of the bush. But you cannot pass through this bush to the other direction. So the alternative was, when the community realized the problem was becoming more, they started now agitating. And they went to the department, the government and on their own because they could not do much. So the government told them under the department of Forestry, well, there's nothing you can do because this land was so bad, and you see now tthe land is covered, so just live with it. But how? How do you continue living with it? I mean, they said you can do. So we had a couple of workshops. I happened to have attended most of them. Even at one time, a parliamentary select committee on environmental resources came to the community to ask for their views. And they said, okay, probably what you do is, of course, the technical people in the department are, now went overboard. They are trying to make, uh, trying to make this fish look so good that we desperately need it. You know it's good for making of timber, it's good for production of feed-stuff, it's been good for the charcoal. I mean, they just decorate it to look so good. And I stood my ground and I told them, there's no way you're going to fool the community, that this is good. I'm equally technical as you are. I know, I know, it's impossible to control it, but the community's not understanding that. So professionally, we can agree with you, but I speak for the community. And so I'm not going to accept your nonsense [laughs]. You have to do something. So we really had a protracted [unintelligible] with these people and we landed all in the court.

[16:01 - 18:03] Clement Isaiah: And so I did some research, I did some work, I documented what the community said, and the document was used to lodge a complaint to the court. And we have a law in the country called, uh, Environmental Management and Coordination Act, which empowers any person to sue an agency or a government or an entity if you find the environment has been polluted

to an extent you cannot live well. You don't have to be directly affected, but it is the situation of that environment afflicting somebody, then you have the right to seek for a constitutional interpretation and remedy to that effect. So we hired a lawyer who did a pro bono services, no pay for the sake of the community. And we went to the court and of course, ruled of course in favor of the community that you need to go back and document the report about the prosopis. And so you should be able to take about, a commission of about three technical people and report back. To date from 2006 up to now, nothing has happened. The government has never appointed anybody. They've never taken a step forward. They keep on saying, oh, no, actually I think 2008, 2009 we back again to try to [unintelligible] the case because it's still active. But the government has not taken any action as far as we are concerned. So that's why now, the issue now came in. Now, so we just continue waiting for the government until when it acts or we do something because if we continue to wait for the government, then we'll continue losing our land. So, we say now we can't continue losing our land. Let's do some little work because communities can be able to change. We are not like uh, so still that we cannot be able. Let's make use of what we have. So we came and did was, it said it would give people some permits to sell charcoal. And um, so permits are awarded people to sell charcoal, to burn and sell charcoal.

[18:04 - 19:49] Clement Isaiah: But of course some people of course ended up cutting some indigenous trees which we are not supposed to do. It'll take time before you get, uh, before you get mature stems that can produce charcoal in time it took me two, three, four years. Many of them are long and thin wood. And as it matures, you cannot, no power-saw can go through. It must have special power-saw to cut through. And the stem inside is as good as dry wood, but it's a green tree growing. So you can't use it when young see and you just have to call it charcoal. When it's old enough, it will take special power-saw to cut into pieces to burn to charcoal. So that, the permit, but there's nothing you can do about it. Of course, people are still burning some charcoal and at least some drought of 2009-2010, some people went on and survived because of saving that charcoal, but it's not controlling the prosopis. So here you have the charcoal, you have the permit, but you are not controlling. You are losing your personal life. You are losing your cattle. So, and Maasai community, I think [unintelligible] and Johanna [phonetic], they know they are very proud people who don't really like, let me, charcoal is a poor man's activity. So themselves, they don't consider themselves poor as long as they have some cattle. I mean, these are for poor people. This is for maybe some Jaluos or something, some communities are supposed to burn the charcoal not us. And then they tell them, okay, you can also open some carpentry shop. They say, what? I go and do this. [laughs] Who's going to do that one. I mean, you don't makes sense out of that kind of thing. So you're asking people if those who [unintelligible] about the Maasais, they are said to be very proud.

[19:51 - 20:23] Clement Isaiah: Not that they are proud. They're simply people who know what they want, they value themselves. And that's why the Maasai have retained their cultural, especially the dressing, and because they think it's an asset. So they have started, they are going to school, but we still [unintelligible] I think, because we are not in any field, we are interior. We actually [unintelligible] category [unintelligible]. So we are not asking us [laughs]. We are not, so asking them to go and buy charcoal, it's degrading this people. So, he didn't like it. True or false?

[20:24 - 20:28] Speaker 2: True. [laughs] But it's also distracting [unintelligible].

[20:29 - 22:22] Clement Isaiah: Exactly, exactly. So you end up doing things that you're not supposed to do. So, um, so what they decided to do, at our own individual and group, um, level, they decided, okay, let's see how we can be able to open up some land. Uh, and somewhere, I think in 2007, some community within a village, they came together and cleared a very large track of land in trying to plant, maybe as a way of controlling. But at the same year, we had very bad floods, so nothing happened. And by the end of a couple of, about five months, the place has been re-invaded. I mean, they re-established, their species had also spread where they had cleared. So what we're trying to do is to devise an alternative where people can be able to own their own pieces, open it up and constantly work on it. Because if you don't work on that place, uh, the whole year, then for prosopis to establish it just requires a few months because it's always all over. So it's very expensive. And so it kind of makes people to work on that area throughout. So there are few projects they're trying to, we are trying to work with them to see if they can be able to work at a family and group level, to see what best they can make use of for the time being, other than just sitting desparate and allow the prosopis to continue, uh, taking more and more land. So we have the Forestry department, of course, uh, slowly, they are engaging the department, the community, as they continue shedding some, saying that prosopis is still good for them. We have the World vision, then we have the Christian Child fund and the Arid-lands Resource management project. These projects, uh, project that you can make, you have not come up with the way really to allocate their resources to a community.

[22:22 - 24:11] Clement Isaiah: But like, yeah, it's actually, I think we can be able to do something. Because their projects, they had their own findings. So this is like a new perspective. They are trying to see now, how do we now be able to come into this kind of project and see now as a new way of helping the community away from the traditional, uh, activities they have been doing. So, so far, uh, the community and the focus of the workshops, which now what I did now during my summer was help a community and focus group discussions. So we identified like three fields work on. Uh, there's one individual plot, a farm. So we work with an individual and two group, uh, for, there's one for

women and one for some men, young men, not really young men, but middle aged, of my age, between 30s and 40s. So we are working on those two projects. And through our discussion, they said, what we can do is we have this land secured, uh, fence it off, and then they work like subdividing. So they can be able to apportion some section to grazing with the pasture and some section, uh, to [unintelligible] the food crop, because if you know the food crop, uh, they need it so they can be able to have something that they can feed the family as the other piece is used for raising livestock. And, I found a project that was already worked by women. They had like a small, small piece of land in which they had grown some cotton. And I think the next slide, uh, that's the women's project. But behind them you can see prosopis is growing all over inside where they have grown their, their, their wheat. So what we're trying to do is to expand this project because this was like one acre.

[24:11 - 26:02] Clement Isaiah: So we're expanding to about, I think almost like seven acres of land and see how we are going to control that prosopis and continuously work on this land for different purposes. We agreed we are going to subdivide it into about 2 or 3 pieces, one for food crops, another portion for their cash crop, which is the cotton, and one section, they want to raise some pasture for some sheep. They want to buy some family sheep for the project. And, uh, this is just one of the meetings that I had in an area called Kiserian with the old men. So behind them were women sitting on their own. I had like four different, I mean, two different, uh, workshops. Uh, this one was kind of, uh, uh, key informants meeting, and I wanted to get from the old men about the source of many problems the community faces other than just the prosopis. And from the back you can see that land is really a bare land. This is an arid area where prosopis has not invaded because there is no, there is no erosion and there is no flooding. And most of the time the land is just as bare as it is, and even worse. We had some little rain. So most of the time the land is too bare. So people just fence using cactus. You can see the background, people have fenced their home using cactus, and the dominant species are the acacias. So what are their preferred options? If they were asked, what do you want to do? Uh, they say, they are preferred with the individuals because this thing is all over. So if actually households can take initiative to work on their own land, then that could be a long lasting solution. Otherwise, if you don't use it constantly, then it will be re-invaded by this prosopis.

[26:04 - 28:05] Clement Isaiah: Um, and they can of course invest in any production system which they can afford. To them, raising livestock is what they can afford because they don't have to buy them, they have their livestock. So instead of free range animals, they can be able to control and have a few within their farmland. But the, the other problem they have, which I think maybe is in the next slide is people are divided because, this is a communal land. The moment people start fencing off, it becomes a private land now. And part of the community want to go into privatization. Others

they'll not let land remain as [unintelligible] as possible. Because if we go into privatization [clears throat], some people might be pushed out of the system. Some people might become poor because they may not afford, and rich people might buy off people who cannot afford to, to make use of their land. So there's still a debate whether the land should be subdivided into individual ownership. To me, I didn't decide myself because I have my own pros and cons on each side, but it is yet for them to find out what will happen in the future. So they prefer a mix of crops and livestock, because this was a system they were used to, and they can be able to get [unintelligible] from the farms and animal products like milk and meat, and they can sell them when they need proper money. [cough]So some of the challenges they are finding is that it's too expensive to remove once established. So once the prosopis are established in the area, they cannot be able to remove it. Uh, as I said initially, it'll spread without even you realizing and you can't [unintelligible]. Actually the prosopis, the, the height of the of the prosopis has an equal length of the root. So if it's one meter, it has a one meter length of the root. Two meters the root is almost equally same.

[28:05 - 30:01] Clement Isaiah: So you cannot even uproot it. If you try to uproot, instead of uprooting it'll just cut whatever the force is. Then the root will just sprout again, new shoot will come up. So it's very, very difficult to work and remove it. So what you need to do is you have to do constant clearing or else it will re-establish very fast. And then the challenge is it will keep the landowners busy 24 /7 and the whole year [unintelligible] one of this piece of land, that they cannot be able to do any activity. So if, if there is no food produced in this piece of land and there's nothing, you need to go to look for another maybe manual jobs or temporary or whatever, but you cannot do anything else. You almost constantly be in the piece of land to work on it. And sometimes they also don't want to support complete eradication because they say, okay, the micro-climate has been kind of changed now slightly cool. They don't have the blowing winds, no more erosion. They have the firewood, especially women prefer that because the firewood's more near. They have the building material, the wood. So the challenge is we really don't want this thing to go out completely. But at the same time, this is thing is just like a, it's like a fire eating every place. So we are also deciding what to do next? So probably time will be the best killer about what will happen, because if these people had alternative livelihoods, if people had the economical power, they can actually live well and make use of it. And people might become rich, but because they are poor, then work on land, make use of this thing to produce whatever timber or sell their product, they cannot be able. So some companies might just exploit them, come and harvest.

[30:01 - 32:03] Clement Isaiah: Uh, I read the other day there's a new power project [clears throat] that's going to establish, uh, a power plant that's going to generate energy by I think by burning or processing prosopis. And they're going to have it connected to power of the national power grid. So

they are going to I'm here to establish some kind of green energies, um, that what it's is working on. And that is going to work for Kenya. And they said it will take them like 20 years before they could be able to reduce risk of prosopis in that area. So you can have the picture how big the thing is from 20 years. They will continue cutting, and I don't have the technical know of how that, that, uh, project will work or the kind of machine they are going to use or kind of establish a source of energy. But they said the'll produce energy and they're going to supply the national grid. So they are signing a contract with the government so they can be paid as they continue using this prosopis for that kind of project. So I'd already mentioned that there's a divided opinion whether their land should be privatized or, or retain as a communal ownership. So this, there are a number of other challenges that people really are facing on their own daily, uh, just[unintelligible] because the issues of health problems. uh, I didn't mention, one of the, uh, evidence presented in the court, is that when the animals chew the pods, it's kind of, uh, it affects the, the mouth and the teeth and goat literally remove their the teeth and the mouth are shaking so they cannot even eat anything. So like, the saliva is drooping from their mouth. So the mouth's just shaking. We took that goat to go to the court to show them and the effect of the prosopis. So [unintelligible] I'll make the, the cases are light but the case is very serious. So I think the last slide is ahead. Oh, next. So the next now part of my project because this was like setting up the project setting as the issues as the priorities.

[32:03 - 33:44] Clement Isaiah: So my next part now is to find out now the progress one year about these three projects which I identified. And I'm constantly in with them, with the, with our, uh, local CBO coordinator, to see that these people achieve what they say they want to do and see how far they have gone in terms of progress, and compare the achievements between the individual, the men and the women projects. And of course, any other new challenges that they would have come across. And if there are any efforts, because it was a community wide project and they accepted that people should be able to work on their pieces and see how many of the people would have, would be operating individually. Who would have the capacity to open more land for their own. And our approach was when we clear the land by the way, have some video coverage for this. I gave friend, Nick [phonetic], to edit because like, I almost like 4 or 5 pieces for different ones. There's one on women cause, the one on this project, men and women. So once [unintelligible] I'll be able to share with the office so they can be able to have a, what's the one I did, that I was talking about as a permanent record. So we will find out how far they will have achieved and then I'll compare, uh, what people are doing. Whether the idea they [unintelligible] and implemented or they just have the idea and they're sitting on it. And we encourage them as they open the land, when you open, there are few indigenous species within the plot. So they should be able to do that when they grow, as they control these other invasive species, so that gradually the local species takes over. Okay.

[33:45 - 34:24] Clement Isaiah: So I was coming from the trip, you can see my car [laughing]. I was totally stuck for a number of hours in the field [unintelligible] had to push me. So I was heading back home. So somewhere midway, I stopped to check that my tires are okay, because it got darker, if I get a puncture on the way, I don't think anybody will help me. So before the dark sets here, I was checking that my tires intact because I still had like another 1.5 hours before I reached was going. So, I stopped to take it on the road. It was like 6:30 in the evening. And so thank you for listening and for coming. And, uh, I'm inviting any questions about the work that went on in Baringo in Kenya. Yes, your Honor.

[34:26 - 34:37] Speaker 2: [unintelligible] which you are doing at [unintelligible] [coughs]. [laughs] Did you mention [unintelligible]? So who had the idea, this brilliant idea to [unintelligible] the species?

[34:39 - 35:27] Clement Isaiah: Um, when the community now started complaining. So our first reporting was when the Ministry of Forestry, Department of Forestry and Natural Resources, because they obviously needed their community. So we told them, what are we going to do because this is all over? So they brought some experts starting from Egypt, from South Africa, and some international experts from the community. We want to [unintelligible] about the species. Because they realized that the people [unintelligible] telling them that we need to control it, we need to control it, we need to control it, we need to eradicate. So we had actually a powerfull seminar sponsored by FAO. And millions of money were used for air-tickets and for consultants to come and convince the community that these things are good. They went to South Africa and even tried [unintelligible] to control it from South Africa. It could not work.

[35:28 - 35:34] Speaker 2: So the downsides on the livestock and the poisoning of people. This things were not [unintelligible] or?

[35:34 - 36:07] Speaker 1: One of the issues we, one of the issues that we [unintelligible] the community was there was no environmental assessment to see how, the you guys knew, because in an environment that [unintelligible], but you never say, likely the effect of this prosopis is familiar with the this farming system. So that's one of the key strongest points to sue them that you knew this and you never tell the community. You never did an assessment so the community can say, okay, we accept or not. There could have been alternative species which would have been introduced to check on erosion and [unintelligible], not necessarily prosopis juliflora. So, is there another question?

[36:12 - 36:27] Speaker 3: Yes. Another group [unintelligible] the reason. So there aren't any possible species that [unintelligible] that may have been better [unintelligible]. And if there [unintelligible]?

[36:34 - 37:46] Clement Isaiah: Um. The last two parts of the question. So one, most of the local species have, like spreading roots because of that dry area. So they adapted to utilizing the little rain that comes in a year. So like they've got like spreading roots so they can tap the water that rains in the year. But this species is, it just goes direct and wherever the water is, it'll go deeper and deeper, I think to the deepest water found on Earth. [laughs] But the local specie, but the local species have that kind of spreading. If you saw those species which were hanging on the valley. You can see that the roots are kind of spreading. They could have one taproot, which [unintelligible], but most of them is adapted to seeking water within maybe the first or two meters in the surface. Um, the other thing they said is most of the local species take ages to establish, so they didn't have a nursery for the local species, which can be used to promote re-forestation because they takes so long to establish. [unintelligible] said it was a problem. So they had all sorts of ways of trying to show that this one is something they can grow and in little time it's all over. So they looked for a short answer to the problem.

[37:49 - 37:49] Speaker 4: And did [unintelligible] ever use the [unintelligible]?

[37:57 - 38:34] Clement Isaiah: Not, not after the introduction of prosopis because this prosopis is staying, even as green as it is, you set fire on it, it will burn like a dry tree. It takes a while very fast, but you are just facilitating new growth from it. The moment it leaves dry, it just sprouts back again. So as we said about, I remember that question was about the herbicide. Um, the herbicide ,they do not have like a systemic herbicide that can be able to kill it. It'll just kill the surface, the contact. But systemic herbicide that can kill it has not been found,that can be able to control effectively [unintelligible].

[38:39 - 39:08] Speaker 5: Do they, um, the livestock, do they have goats with the cattle as well. Because these are goats and [unintelligible]. Which [unintelligible] chewing obviously [unintelligible]. They tore it up, you know, and try to get [unintelligible] goats to eat all the seedlings and [unintelligible] for years, five years in a row. And then as we said, to keep on [unintelligible] that to be very [unintelligible] because that's my [unintelligible].

[39:08 - 39:08] Crosstalk: [unintelligible]

[39:08 - 39:25] Speaker 5: But the have the same, the same kind of, uh, [unintelligible].

[39:29 - 39:58] Clement Isaiah: We have goats under the first culprits of the negative effects of this prosopis because goats absolutely love pods. They spend all the time loitering around there waiting for the wind to shake off. Then they pick all the pods have fallen. But those pods turn to be the worst

enemy to their health. And actually research has been done by animal nutrition is that animals who depend wholly on these species lose nutrition.

[39:00 - 39:00] Speaker 1: Yeah, that's right.

[39:00 - 40:46] Clement Isaiah: Okay. I think there is some effect that is, that it will prevent the absorption of other nutrients in the body, but when mixed with other nutrients is the best. But when animals feeding on it alone, it has the opposite effect. So that's about the goals. They have them and they they are also the best spreaders of the seeds. Goats are spreading them all over, in their enclosures at home. Yeah. But they really love it. So sometimes I remember 2009, had to hire some people to collect so many sacks for my cattle [unintelligible] of the pod. So during droughts season, the dry season, in the evening the cattle are feed on them, and they really love it. Okay, so I think.

[40:46 - 40:47] Speaker 6: You said [unintelligible].

[40:48 - 40:53] Clement Isaiah: So say, I shared a very light picture of it but the problem is really, really deeper.

[40:57 - 40:57] Speaker 7: [unintelligible] spreading like all over or [unintelligible]?

[40:59 - 41:48] Clement Isaiah: Yeah. It was produced some some districts. And the problem is the Baringo people who became more active. Tana river is [unintelligible] because of producing much much earlier. But the activism was low. So some of us became more active in our place, so that they actually now trying to come down from us who got the problem later. But we became aware of some of these human rights issues I think, [unintelligible]. So we took advantage of that to, to, to speak and open our mouths because many things are going wrong. But the issue is there in Garissa which is also in Kenya, Tana River. One of the irrigation schemes, I think, are I think Galana and even the Tana River irrigation scheme were totally being taken over. There is no more irrigation now taking place. There's no more planting of crop because the prosopis have taken over this place. Yeah.

[42:04 - 42:05] Speaker 8: [unintelligible] is consistently bad?

[42:05 - 43:40] Clement Isaiah: Yeah. Um. One of my biggest achievements in the just concluded spoken SRM workshop, I spent some time with those guys who work with the weeds because I went and I told them about the problem we have. And they told me that they have not really worked with the prosopis, but we have been researched on them. They have sent me a lot of documents and they are actually researching on it, because I told them this one can be a good market for you.

They're business people and they have a lot of herbicides. And we discussed, and even the top managers have been, we have been in touch with them about what can do, what, how prosopis can controlled. Because they are talking about many, many thousands of, of prosopis species, non native. And prosopis one of the issues that they have never really centered on, because within this country where prosopis is, I think it's just left to grow there. Nobody bothers about that land. So I've been taking a lot of personal interest in terms of the technical know-how on how to solve this. And I can also influence the department in my country to look through how they can be able to get in touch with those companies that are, I think even my, I don't know whether I got this one from them. [unintelligible] they are not part of the company. had some of their material on their website, and communication with them to see how we are able to, how we can be able to work with them and have a control. If they are allowed to carry one of the hubs, they are going to be, to Kenya. But of course, there are regulation but, so I'm looking at all the options that can be able to control it.

[43:44 - 43:48] Speaker 1: Okay. Thank you very much. [applause]

END TRANSCRIPTION