**Cultural ecosystem services and human well-being in Madagascar under climate change**

**WORKSHOP TRANSCRIPT**

**Location/site**: Rural commune Ambila, Fokotany Menalamba, Village of Maromahatsinjo

**Date, time**: 01/09/2019 at 09:15PM

**Interviewer (initials):** FJR+ LMV

**Length of workshop**: 01:00

1. **FORMAL GREETINGS AND INTRODUCTION**

Head of the Fokontany: I apologize in advance for standing up before you today to speak. To begin, good morning to all the people of Maromitsinjo and to all the assistance and thank you for having responded to our calls and for coming so many. I would like to take the floor to open this meeting as the local representative of the Malagasy State. On behalf of President "Andry RAJOELINA" and all the authorities of the Malagasy State.

The reason for this workshop is the coming of these researchers specializing in social sciences and environment and botanist. She had come two months ago to plan their work and first of all see the assets of the population and our village in connection with their research subjects. They arrived yesterday and they are going to stay in our village for a while to do the workshop today (laughs) and afterwards make individual inquiries about the socio-cultural, health and economic impacts of environmental change. To do this, their target audiences are of different categories that are the elderly, the disabled, adults, young people and children.

She’s Miss Felana and she’s Miss Leonnie, I’m just introducing the session and they’re going to continue; I ask everyone to be dynamic when speaking. Thank you all and I give the floor to them. (Applause !!!!)

Leonnie :Thank you to Mr. Jean Claude for this great speech, sorry to stand up before all of you to speak (Malagasy wisdom and tradition: we always apologize before speaking in front of people older than we are). I am not the oldest so it is not up to me to speak, but I do so voluntarily to achieve the objectives of this research. Your active participation would helpful for us, for the progress of this study which concentrates on the impacts of the change or degradation of the environment on the socio-economic level, in terms of health, culturally and well-being of the population.

It would be inappropriate to simply make assumptions from a distance and that is why we came to your village to see the reality and to find out what you really think. To continue, we humbly solicit everyone's participation because your opinion is very important for this research.

Before we get started, we would like to let you know that in order to memorize everything we occasionally take notes and photos for illustration and also make audio recordings. We hope you don't mind. In the meantime for the location of faunas or flora or important places, we have maps and we ask you to indicate them if possible. If you have any questions about anything that was said, don't hesitate to ask, otherwise we'll get to the heart of the matter.

1. **WORKSHOP IN GENERAL (DISCUSSION)**

Leonnie: To begin with, I have a very simple question: In your opinion, what are the elements of the environment? You can all speak, we are among ourselves so everyone can speak.

Woman: The elements of the environment are all that surrounds us example water, air, forest, fauna, soil

Woman:The environment is the whole of all visible or invisible living things like air, soil, animals

Leonnie: Thank you to those who gave their opinions, we would like to stress that your participation is very important for the progress of this study. We'll go to the next question if no one has anything to add. Which of these different elements of the environment do you find most important in terms of economic, cultural, social and everyday use? And if you can, please feel free to mark it on the map

Answer: Water (2 people)

Air (3 people)

The forest (1 people)

The ground (4 people)

Animals (2 people)

Woman: The soil is the most important to me, it is found everywhere, it is our whole life, it is where agriculture is practiced, where we live, and we use to make bricks for construction.

Woman: For me the most important is water, it is the basis of life, useful for agriculture, to drink, to wash oneself; we can find it in the East of the village "Maromitsinjo"

Felana (at the same time secretary of the session): Is there any other specific reason that makes you say that? Well-being and cultural point of view for example? If not, does anyone have anything else to add?

Young boy: For me, the most important is the forest. It is located in the surrounding primary forests especially the southwest part of Maromitsinjo

The forest gives us construction wood which is used to make charcoal (source of income).

Elderly woman :Its richness in different plants is used in traditional medicine (infusion) for example when we have a stomachache we use guava leaves to make an infusion, for fatigue we use "Zahana", for complicated deliveries we use the "fandatsahana "

Felana: Someone said "Tsiandrovana", what is it exactly?

Disabled woman: It is a plant to make an infusion for fatigue

Felana:Can we still find them?

Disabled woman: Yes but far in the primary forests

Leonnie: These medicinal plants that you mentioned, can you tell us or where can we find them? Can you mark them on the map?

Woman: In primary forests, here for example (indication on the map)

Felana: What about everyone else? What do you think?

Boy: Forest and animals are the most important to me. We find primary forests in the surroundings especially the southwest part of Maromitsinjo, it purifies the air (at night it absorbs carbon dioxide and the day it provides us with oxygen. It also shelters fauns which are my passions, watching them, listening to them make me inexplicable good.

Man: For me the basis is air, we breathe with it and it gives us good health if it is clean but may cause sickness if it is polluted

Leonnie: I don't know why or if some people don't really understand the subject, but there are people who are very active and there are some who don't participate [laughing]. We really ask to have your opinion to get good results of this research. Please do not hesitate to speak.

Since you moved here to Maromitsinjo, has the environment always been like this? Have you noticed any changes in the environment? If yes, good, bad or was it a big change? Has this had an impact on your life? What do you think caused this change?

Elderly woman: Ahhhh yes, I noticed a sharp drop in rainfall and this has led to a decrease in soil fertility "even though I didn't have the chance to go far to school" and with it a decrease in the yield of rice, which is the staple crop and food of the population because cassava and vegetables are just a surplus.

This change causes insufficient water in the rice fields, climatic variation, insufficient precipitation and sometimes excess precipitation.

Man: Before, our village was covered with forest, but during the third republic, the State adopted a policy which allowed the population to practice land clearing and "TAVY" for the promotion of agriculture for 5 years, then in 2005 there was the clearing of 6000ha of forest for the installation of the subsidiary "Ambatovy". But recently the forest is well monitored and all that remains cannot be cut without the authorization of the association "ASITY".

Leonnie: You talked about Ambatovy and "Asity" but you said that you use wood to build a house, for daily firewood, to make charcoals. So we would like to know, aren't all these things contributing to the degradation of the forest?

Woman: Of course not, since we only cut large dead trees, and then it is a practice adopted from generation to generation but it had never had such a big impact on the environment. The needs of the population in terms of forest resources have never been such a big impact like that.

Young boy: It's not every day that we build a house. Even today we can still make choices for the woods we would like to use to build our house.

Felana: Can you tell us what types of wood you use for building houses; I mean which one still exists in the surrounding forest?

Young boy: Ohhh, I can say that we have several choices, for example, we have "Anjananjana", "…", "Ambondra", "Arongana", "Ambora"

Felana: Sorry, can you repeat the second one?

Leonnie: Varongy right?

Young boy: Yes Varongy, one of the most used woods for building a house.

Felana: What about the others? Anyone else want to add something to this?

Elderly woman: Yeah, well, I've noticed a change around 2008, I smelled air pollution caused by bizarre and unhealthy gas emissions from the Ambatovy company. And then we can no longer enjoy the water.

Disabled woman: Since the installation of the "Ambatovy" subsidiary, we no longer have access to water and then the drought became more intense. On the brooks we also notice a decrease in the flow rate to such an extent that we do not have access to drinking water and water for domestic use.

It is believed that it is because of the use of water by the subsidiary "Ambatovy" that the population's access to water is insufficient and limited.

Man: I have a small remark; the source of water which feeds our rice fields is in the enclosure "Ambatovy". From their facility, they installed a dam to hold water. This harms our agriculture, especially the cultivation of rice.

Leonnie: We can say that we are progressing well, we have already seen two major themes since we started, the most important elements for you in the whole of the environment, the changes experienced. We will try to know now the impacts of these changes in your daily life. But before that, I would like to know if everything is clear so far or if someone has remarks or questions.

If there is none we'll move on to the next topic.

We are going to enter into the impacts of changes in these elements of the environment in our daily lives. I mean socio-economic, cultural or whatever

Felana: Also on the sanitary side or traditional practice, or other that has not been mentioned but that you care about.

Man: Many are the impacts of the degradation of our environment, especially since the installation of the subsidiary "Ambatovy". It makes me really sad to see the population of our village suffering from new diseases like measles (my eldest daughter has just been evacuated because of measles, the day before yesterday and this morning there were other people with the same cases). It is new because before that did not exist. In addition, from a socio-economic point of view, the decrease in agricultural yields is more and more remarkable, and then there is air pollution.

Disabled woman: There is still some good change even if it is not at the same level. Since the installation of the company "Ambatovy", socio-economic works have been carried out in our village such as the construction of roads, schools, dispensaries (not yet operational because of the absence of health personnel). However, we can't really do much; it makes me sad considering the spread of contagious diseases such as measles, whooping cough.

Leonnie: Olga, what do you think of all this?

Girl: It doesn't change anything for me, at least for now, but I'm aware that one day it would have consequences for the future, but I notice changes in people’s behavior. The incessant destruction of the forest leads to an imbalance in the climate, lately it is very hot and this leads to a psychological disorder in some people it increases the level of nervousness in some people.

Young boy: Personally I see bad changes on the socio-economic and psychological level

For that I’m very angry but I can’t do much because local authorities are often corrupt by society

Man: For me, a bad change especially on the socio-economic and cultural level: since the classification of our village as a new protected area, we can no longer to register our land. Before we could do picnics and hunts in the forest and it makes me so sad that we cannot do this for a while, we cannot even enter in certain areas without a paperwork procedure managed by ASITY.

Elderly woman: I am sad but there is nothing I can do. On the socio-economic and cultural level, agriculture is among the main sources of income of the population of Maromitsinjo; the lack of water generated by the massive use of the company "Ambatovy" does not help us. Consequently, the purchasing power of the population decreases. On the religious level, in the forest recently classified as new protected air, there is a part where we do our traditional ritual, but today without the agreement of "ASITY" (who takes care of the management of the forest) we can no longer access it. We have almost lost our religious freedom and it is sad.

OTHER NOTE

Man: Since the new status of our village as a new protected area, we have lost almost all of our rights over our land. We can no longer register them. We are really sad for what we are living today, the water is no longer clean.

1. **FINAL SPEECH**

LEONNIE: As time goes by; we will not abuse you and keep you here longer. Thank you very much for your warm welcome and your participation during this workshop.

And to finish this session in style, we brought something and we invite you all to have a drink with us.

It’s not much but the important thing is solidarity and atmosphere with all of you...