

Session 1 General Discussion

Chairman Dr. Tomoyuki Kawashima: We are now open for discussions. If you have any comments or questions, please raise your hand and then I will point you out. When I point you out, please identify yourself, and then in the case of asking any questions, please make sure to whom you are going to ask.

Mr. Michael Aisefaw, Student, University of Tsukuba: Thank you for the clear presentation. I am Michael from Eritrea, student of the University of Tsukuba. My first question goes to Mr. Junichi Hanai. As you have mentioned, as a purpose of the project you want to create a change in the pattern of grazing animals, by prolonging the time they stay in the wet grazing area and shortening the dry grazing area. My question is how about considering the recovery in what you call the wet-grazing area? Because there is a similar grazing pattern in the Horn of Africa, and as far as I know in Eritrea it is the same. So did you consider the recovery time for vegetation in the wet-grazing area? Because if the time that the grazing animals are staying there is prolonged, it will also negatively affect that area.

My second question goes to Dr. Andrew Mude, with regard to the social acceptability of the insurance program. How far do you think the local people accept and depend upon the program, and did you conduct any study regarding this? Because most of the pastoralist people are illiterate in many cases like in the Horn of Africa.

The other question is, regarding the prediction of livestock mortality, as you have clearly mentioned, the region under your study is geographically different particularly in terms of climate; the upper cluster and the lower cluster are totally different. So in this case when the livestock mortality is calculated with the help of the processes that you described to us, to what geographical extent can you use this livestock mortality index? Even in one village you can have different livestock mortality indexes; there is a great variation even between households.

Chairman: First I am going to ask Mr. Hanai to answer, but are there any other questions for Mr. Hanai?

Dr. Fan: I am Shenggen Fan from IFPRI. The question to Mr. Hanai is, there are a lot of donor initiatives in the Horn of Africa to rebuild the resilience of smallholders, particularly pastoralists there—USAID, the World Bank, IFAT, CGIAR—so have you had any interactions with them? I can see the donors moving to a region individually; I think it would be very important to work together.

Chairman: Okay, is that a comment?

Dr. Fan: No I am asking him whether he has had any interaction with other donors.

Chairman: Okay.

Unidentified Speaker: Thank you for a nice presentation. My question is to Dr. Andrew. Your index is based on NDVI. How confident are you in this process, knowing that it is not very valid everywhere, particularly in low-rain areas and so on? Thank you.

Chairman: Okay, Mr. Hanai, could you answer the two questions?

Mr. Hanai: Regarding the first question, yes, I explained to you that we are trying to extend the grazing period in wet-season grazing areas with the introduction of new water pans, before moving to the dry-season grazing areas. But of course if we put big water pans, water resources in wet-season grazing areas, they stay for a long time around the water pans, which results in deterioration of pasture resources around the water pans in wet-season grazing areas, even though we can keep the recovery of dry-season grazing areas. So the most important

factor is the volume of water pans which we put in wet-grazing areas. According to the experiences by the European Community Humanitarian Office (ECHO) and those development partners, I think 10,000 to 15,000 cubic meters of water pans can make the herds stay longer by one or two months. Of course, this depends on the number of herds. But anyhow, that is based on CMDRR approach. The most important thing is that we should talk to the communities themselves: what are their moving routes? What is the number of herds? Who is expected to utilize such a new pan? Then we can make a decision on the size of the water pan in order to optimize the utilization of both grazing areas.

Regarding the second question or comment, as I explained we learned a lot from ECHO and any other development partners and we tried to catch up with the movements of donor alliances and coordination. Since last year I have attended more than 10 international conferences for strengthening the donor coordination and linkages. Last month I attended a big conference with a very delicious dinner, hosted by the USAID in Nairobi at the most expensive hotel. In last April this year they launched a new alliance for drought resilience enhancement, called the Global Alliance for Drought Resilience and Growth. There are a lot of parallel movements for donor coordination and alliance in the world. JICA is a very weak newcomer to this field, and have tried to catch up with those very complicated movements of alliances for drought resilience enhancement in the Horn of Africa. Thank you very much.

Chairman: Okay, the next question is to Andrew. Are there any other questions for Andrew? Yes, Mr. Nakada please.

Mr. Nakada, JIRCAS: Thank you very much. I am Nakada from JIRCAS. My question is on how to set the index. As you explained, the status of hay productivity is a primary factor to determine the mortality rate of the livestock. But there is another important factor which is the population density of the livestock. If you introduce an insurance mechanism, that might induce a growing number of livestock, because the herders will get the measure to improve resilience. Then the herder might have the idea to increase the number of animals. So that could too affect the mortality rate. So my question is how you manage this kind of situation.

Chairman: Okay, Andrew please.

Dr. Mude: Thank you very much for all the interesting questions. Let me start first with the question on social acceptability. I think I mentioned that one of our big challenges is educating the target population on exactly what the features are. But educating is different from acceptability. I also mentioned that before the launch of the project in January 2010, we actually began working on this in 2008, and part of that effort included immersion trips in various areas of both Marsabit and in Borana zone of southern Ethiopia, just to see if this is an idea that the pastoralists could understand, and once they understood it if they would be willing to purchase it. We designed experiments or games to elicit their understanding; and determine their willingness to pay. And I think there is a high level of acceptability, at least within the area that we are now working in Marsabit.

In terms of acceptability and scaling up, we are now going to be moving into areas of northern Kenya that are more Muslim in nature, and that it where we are a bit more worried about the acceptability because Islam usually has some kind of suspicions with interest rates and insurance and so on. But we are working with a new insurance company in Kenya known as Takaful that is a Muslim insurance company, so we think that will be the vehicle that will be able to give us acceptability traction in the Muslim areas.

Then there was the issue of NDVI, and there was the question of how much do we believe that NDVI gives us a very good signal of forage in the area, particularly as different areas' microclimates and so on might affect that. I do not think we get a perfect signal, but I think that we get a good-enough signal, given what I have shown, that the predictions match very well. But as we scale up I mentioned that one of the four pillars has to do with the precision. As part of that, we are working with remote sensing scientists in different places around the world, and

we are looking to go beyond just NDVI and look at other remote sensing signals. They call them Enhanced Vegetation Index (EVI) and there is what they call FAPAR. But then we are also doing some work, some of what my colleague showed of what they are doing in Mongolia, which is actually ground truthing, taking spectral samples of various types of forage to create algorithms that will be able to strip out the green on the ground that is not palatable and will give us a much better signal of that. So we are working on improving that.

There was a question of scaling up and viability, the idea that even in Marsabit we break it up. Certainly the response will vary as you scale it up, but as I said, this product is relevant in an area where the risks are covariant and also where the risk is a very important aspect of the households' welfare. So that is pastoral areas which are impacted by severe droughts, because severe drought is a covariant circumstance. There is a wide area in the greater Horn of Africa under which those two conditions indicate that this product is relevant for scaling up.

The last question has to do with—you mentioned that there is more than just forage on the ground. Actually, I think there are two parts to your question. One is what information is important for predicting mortality, and you say it is more than just forage but it is also about how many livestock there are on the ground. To put it differently—you are right about that, it is very different from a cropping system where what matters is the amount of rain in that system, but in livestock production systems the health of the livestock at the beginning of the season is very important too, because you could have very healthy livestock come in, and even if there is a drought they might not die, which would be very different from if you had the same drought but the livestock coming in were coming in weak. So we take that into account in the model by having longer timeframes that capture two seasons as we predict one season ahead of time.

Then there is also the other issue, which is the impact of insurance on households' herding practices. Will they purchase more livestock? This is a hypothesis; it is not clear that they will do that and we are actually studying this. It is a hypothesis that livestock keepers keep their livestock during times of drought and don't sell off, because they don't have any other insurance. So if they are using their herd as an insurance, because the more livestock you have when you go into a drought, even if your livestock die you will still have more animals after and they can regenerate. So that is an insurance value in holding a large herd. Therefore if you provide insurance it might be that they reduce their herd and sell more, but it could be like you say that they might increase more. It is not clear which it is and so we are conducting studies to assess that.

Chairman: Okay, thank you.

Before moving to another question, I just have one announcement. The day after tomorrow we will have a small seminar. We have asked Andrew to give us a little bit more detail about this index insurance. The time would be 13:00 on Thursday. If you are interested in joining this seminar, please contact Dr. Oniki or myself.

Are there any other questions?

Dr. Iwanaga: My question goes to either Mr. Hanai or Dr. Mude. In the mid 1980s we observed a serious drought that occurred in the Horn of Africa, and Ethiopia was greatly affected. When we had the last drought in 2011 to the early part of 2012, probably the biological condition is a similar level. But I felt that Ethiopia have shown more resilience compared to the time of the late 1980s. Would you agree with that observation? If that is the case, what made the difference in terms of resilience in Ethiopia, comparing the drought in the mid 1980s and the recent drought? Because that is a way that we can learn what kind of social or village or political level of system is required to have more resilience.

Chairman: Can you comment on that?

Dr. Mude: Thank you for your question. I think that particularly in Ethiopia, you can say that over the recent

years, may be the past decade, they have really improved their institutional systems to respond to drought. I think there was a presentation earlier that was given perhaps by Dr. Fan, who showed one of the programs, this productive safety net program in Ethiopia, which provides a regular monthly income to those that are vulnerable, and at times of shock. It could increase that. He showed that that is one of the reasons that in Ethiopia, the impact of the recent drought in 2011 was not as much. But they are also really improving their food production system, they are improving their marketing systems and so on, and of course this increases the household's capacity to deal with their own shock, but then also the government's capacity to target households. Certainly I think that is what has contributed. There are similar types of programs that are coming up in northern Kenya and also some of the types of programs that Junichi work on are important for helping support resilience. But I think that the government of Ethiopia is quite ahead in that aspect, and took it very seriously because previous to their attempts they were really getting affected a lot more. I think most of the famine relief was going to Ethiopia and so on. So there was a national commitment to help improve this food security that I think has worked to some extent.

Chairman: Okay.

Mr. Hanai: I am not Kenyan, so please forgive me if I make a mistake. I think that, as with Ethiopia, the system of drought emergency response in Kenya has also been established. We have the hunger safety net program as well funded by the Department for International Development (DFID) with 10 billion Japanese yen or thereabouts. We have an early warning system, local government structures for distribution of food, water trucking, stocking of livestock, health, education etc. So as far as drought emergency response, I think more or less the system has been established.

But last year's drought, the so-called worst in 60 years—this is an advertisement by UNOCHA, so they say—became a kind of turning point for revising our interventions by government as well as by donor communities against drought in these areas. We now realize that we need not only drought emergency response but also mid-term and long-term actions for building resilience in the communities, in particular pastoralist communities. That is why JICA tried to introduce the CMDRR approach.

Pastoralists in northern Kenya have been regarded as just as targets for social protection and relief. But now we have to change our view of them from just targets for social protection to also very significant players in the Kenyan economy, because more than 70% of livestock products come from northern Kenya. We know that. So this is a very good opportunity to change our mindset for the drought resilience enhancement.

Chairman: Okay, thank you. There is a time limitation, but there has been no question to Dr. Yamasaki. If you have any questions especially to Dr. Yamasaki—okay, Dr. Masuda, please.

Dr. Masuda: I have two questions to Dr. Yamasaki. One is, according to my limited observation, the Mongolian herders have not developed exclusive rights on the natural resources, so they still maintain very high mobility. In such a situation, their traditional knowledge of the potential resources should be very important whenever they take new actions such as to change their camp, or to change their livestock number. So my first question is whether their traditional knowledge of the carrying capacity of the grassland corresponds to the scientifically measured carrying capacity. If there is a disparity between their knowledge and your measurements, then there should be room for education to the herders' society.

My next question is about whether agricultural residues or industrial residues can have the potential to reach the herders in the far reaches of the country, because their population is spread all over the country so whether the utilization of agricultural residue has the potential to feed the livestock only in the surrounding areas of the large cities or whether there is also the possibility to deliver the residue to the livestock in the peripheries. Thank you.

Chairman: Okay. Dr. Shirokova, is your question to Dr. Yamasaki?

Dr. Yulia Shirokova, Scientific Research Institute of Irrigation and Water Problems, Uzbekistan: I am Yulia Shirokova from Uzbekistan, from the Institute of Irrigation and Water Problems. Tomorrow I will do a presentation. I want to ask one question to all of the participants in today's discussion. My question is: how much support do you have from local government, especially from the village governments, from local places? Because it is an ill question: you will usually have good ideas that you cannot realize due to poor communication or a lack of understanding for all. Excuse me please; it is a question for all.

Chairman: Okay, first Dr. Yamasaki could you respond to Dr. Masuda.

Dr. Yamasaki: Okay, thank you for your question, Dr. Masuda. May I confirm that your question consists of two points? The first is about the traditional herders' knowledge and how to retain or conserve that. The second is about utilization about the residue from the factories. Something like that?

Dr. Masuda: Whether your measurements and the herders' understanding corresponds with each other, or whether there is some difference. That is my first question.

Dr. Yamasaki: As for the first question, as I mentioned, many new herders joined livestock production sector after the introduction of a market economy. Therefore, in general, I think that much of the traditional knowledge on the pasture plants, migration, carrying capacity and so on are now disappearing, I think. Only elder persons know it, and many of the younger generation do not know even very simple grazing techniques. I feel that this is the case.

Dr. Masuda: Regardless of the capacity? For example they migrate from one place to another, regardless of the capacity of the grassland in the new place, does such a situation occur?

Dr. Yamasaki: Yes, it does occur. It's one of the effect of social changes from 1990s. But, actually, it is very restricted to migrate to another place, especially in the northern or fertile soil pasture areas, because at first the number of herders and herders' households increased. So it is very crowded in the northern steppe areas. Some herders come nearer to the population centre, Ulaanbaatar city, from the western and southern regions. So it is said that the pasture near the population centre is much degraded. It is very difficult for them to preserve the pasture by themselves. Therefore, the government itself and parliaments are discussing this, but as far as I know it is very difficult to make some decisions about pasture utilization because the opinion of the northern part members and the southern part members differ from each other, I think. On the other hand, it's important to show the scientific data related to the pasture utilization and conservation.

As for the second question, agricultural residues or industrial residues don't have the potential to reach the herders in the far reaches of the country. For example, the transportation cost of brewers' grain is very high as it contains approximately 80% of water. And the amount of supply isn't enough to meet with the requirement of the animals in the whole country. Therefore, the utilization of most of the factorial residues should be limited to be used only in near area. It's important to use locally available feed resources. In case of far pastoral area from capital city, we can find wild plants for the resources, and are now trying to process to silage to feed during cold seasons.

Chairman: Okay.

Then that there was another question from Dr. Shirokova. Is there anybody who can answer that? No?

Dr. Mude: I can start for my case. I think that it is very important not just to local government but all the way up to the national government. It could be different depending on the structure of governance in each country. But even when I say it is important, I think it is very tricky and it has to be handled delicately because you do need

their support but there is some level of support where you have to be careful that you do not have them hijack the process. So what we did, first of all even as you enter a community the protocol that we have is to first of all establish a relationship with the local government. And then not just the local government but there is also in Kenya the chiefs, so we are in conversation with them and thankfully they have been quite supportive. Now actually we have received most of our support from the Ministry for the Development of Northern Kenya and Other Arid Lands, from the minister himself and the assistant minister. I think this is the same ministry that is probably more important for you. I think they are very proactive so we are quite lucky, but you know we are having an election soon and things might change.

But there are also times when we have got into a bit of trouble, or not trouble but where for example we have this big survey that I mentioned, so we need to get to enumerators from the different areas to speak the languages to conduct these surveys. But if you do not get the chiefs on, or perhaps their MP uses that as a vehicle to get their supporters some jobs—so it is thin line; you have to be very diplomatic. They also can use your product or your project as a platform for their own politics. So it is a grey area but it is certainly very important.

Chairman: Okay thank you. Due to time limitations I have to close the session now. Three presenters gave us relatively new approaches in order to improve the resilience of pastoralists. But it seems that everything is at a very new and early stage for implementation so it seems that we would like to invite all of them perhaps in several years to see the impact.

Please give a big hand to all three of them.