

## Question and Answer Session: The Nexus Between Nutrition, Food Safety and Food Security

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<b>Question</b>	<b>Answer</b>
<p>How do you evaluate food safety practices in Ethiopia? Especially concerning the testing laboratories we have or their capacities?</p>	<p>The situation in Ethiopia concerning food safety is not so encouraging because food safety measures are not being implemented at all stages, or partly implemented not fully implemented. Now, when I look at food safety measures, I look at these three points:</p> <ol style="list-style-type: none"> <li>1) Producers and farmers do not follow good hygienic practices, starting from threshing. The traditional way of threshing includes, first the field is prepared, cleaned, and then it is actually covered by thicker material from cows and oxen, to cover the soil and it is used by what we call "<i>ebet</i>". It is covered and then when it dries, and threshing takes place in that point. Imagine how much the zoonotic microorganisms are present in the residues of cattle. Then all through storage in the silos, there are rats coming in, there are insects coming in, all loaded with different kinds of pathogenic microorganisms because they are natural carriers of pathogenic microorganisms. The only protective issue is that if the crop is well dried perhaps it may not support the growth of microorganisms but it will carry them to the next step, particularly if they are spore formers.</li> <li>2) Processors. I am not sure how many of the food processors in Ethiopia follow the two major steps. The first thing to do is to fulfill the prerequisite steps. These are what we call the good manufacturing practices. Starting from the environment of the factory all through the building the inner walls, the floors, the junction between wall and floors, the angles which are difficult to clean, and then come equipment, put on the ground and the space between the equipment and the ground, whether it allows certain moisture, certain food debris in it, and allows the multiplication of microorganisms. And the processing equipment themselves. Now, this is very important, but I am not quite sure whether the proper care is taken in following good manufacturing or good processing practices. Once these things are completely implemented then comes Hazard analysis and critical control points (HACCP). HACCP is the process where processing is controlled at every step so that everything is functioning properly, the heating device heats to the required temperature, the cooling device cools as required, and these are continuously validated, checked, and if the line is functioning properly, it is assumed that the product is safe. If both these things are implemented, I am not very sure about that, but the people at the regulatory organization may have a better idea than me on these things.</li> <li>3) Then comes the wholesalers and retailers. They have to follow strict procedures in maintaining the proper temperature; it is usually temperature abuse that creates certain kind of problems.</li> <li>4) When it comes to the household that is another problem. Household kitchen handling, now even if we forget the producers, now we have individual households, we have food service organizations like restaurants and small hotels all over the country. If you look at them, then food safety situation is very poor. You can read many publications or knowledge, attitude, practices of food safety in many areas at household level and at a restaurant or at feeding sites. Establishments and food handlers do not have the proper knowledge, they may have a good attitude, but that attitude is not translated into good practice. So, the danger is always there. And no wonder food-borne diseases make up a good proportion of the transmissible diseases in Ethiopia. So it is pathogenic, I can say it is really pathogenic at household level, at food service institutions. I am not very sure about it, but in processing industries, if the prerequisite programs are in place and if the HACCP procedures are strictly followed.</li> </ol>

	<p>Currently, the situation is very pathetic and there is a lot of work for the organizations, which the previous presenter mentioned. I wonder if that organization is large enough, organized enough to control all these things. It's basically going to be an issue of awareness at the beginning and then the control can follow but awareness is not well created. Knowledge, attitude, practice (KAP) studies indicate that knowledge is poor, practice is poor, attitude may be acceptable, but what use does it have if it is not implemented and or translated into practice? That is what I say about on food safety situation.</p> <p>When it comes to laboratories, well, one of the most expensive laboratories is a simple microbiology laboratory. It can be advanced but just to establish a simple microbiology laboratory to make routine tests, is not affordable. You may have one here, but considering the sources of problems, it is very difficult to make testing efficient in Ethiopia. It has something to do with the economic nature of the situation of the country.</p>
<p>Is there a developing country that have addressed the issue of food safety in relation to food security and could be exemplary?</p>	<p>Yes, I mean it is quite an interesting question again. You see, when we consider the evolution of the definition of food security it started sometime in the early 1970s and came to the current definition around late 90's or 2000- 2001. It has taken a couple of decades for the elaborations and inclusion of concepts. They are very complex of course, as we have seen at the beginning. The most interesting thing is, right at the beginning of the definition, when the definition was being proposed some 20 years ago, food safety has always been in the definition, but unfortunately until very recently, food safety has never come up along with other issues. Until the first thing that came up was availability and then it was immediately followed by access and of the use and utility parts. Nutrition came forward because there was research showing that despite the availability of food, there are lot of science of malnutrition like stunting, underweight, and all the other manifestation of malnutrition. So, nutrition has started to be looked at along with food security issues. But it is only since the last two years that in a certain international conference, FAO, in his speech, mentioned that there is no food security without food safety. That was for the first time, and only two or three years ago, and now it is being considered as an issue of food. I don't think there is any country in Africa which has tackled food security along with food safety. Tackling food security along with nutrition is a long-term experience of course, it has started many years ago, but food safety despite its importance, and despite its presence in the initial definition, has gained importance. I am not sure if practical issues are being addressed concerning food safety and food security.</p>
<p>How does climate change affect nutrition, food safety and food security in one country? What is the future work and our country especially related to a multi-sectoral approach?</p>	<p>Food safety is related to anything, and climate change creates an environment which supports the multiplication of microorganisms in the environment that eventually affect food safety minimum at household level. Food safety cannot be seen separately from water safety, I didn't mention water because, by definition, when we say food, water is always defined as part of food, that is why if I don't mention water. When it comes to climate change, it affects a lot of things, for example, a lot of rain means a lot of water flowing on the surface that means water is the best carrier of microorganisms, contaminants, and other pathogenic microorganisms carried along with the water, and then, its distribution through the environment eventually leads to problems of food safety. And climate change also results in certain emergency situations where people get displaced from their areas and have to come together in camps. In such kind of emergency situations, usually the major problems are safety problems like cholera, or other food-borne disease are related with such situations.</p>
<p><b>Mr. Wendafrash Abera - Technical Advisor on Food Safety and Nutrition at Ethiopian Food and Drug Authority (EFDA)</b></p>	
<p>How food safety and quality insurance are targeted such as quality standards, consumer</p>	<p>A food safety issue is a shared responsibility. Currently, EFDA is mandated for semi-processed and processed products. But there are different organizations like Ethiopian Standard Agency they should develop the national standard, Ethiopian conformity assessment, they are ensuring the safety and quality as a third-party certification body. What the situation is,</p>

<p>right to get safe food, regulatory requirements in Ethiopian regions?</p>	<p>especially those products, manufacturers, importers, and wholesalers before they are conducting, before they are importing the product and starting the manufacturing, they should have to get a certificate of competency from regulatory authorities. EFDA works on this issue. EFDA issues a certificate of competency for importers, wholesalers, manufacturers. Then the next step is, we are collecting products from the market, we conduct a post-marketing surveillance. If the product is on the market routinely, we check the product quality. This is what EFDA is doing but especially throughout the regions. There are different organizations who are responsible in the regions, especially, the health regulatory bodies. EFDA has six branch offices, with these six branch offices, geographically located, they are supporting the regions. Regional health regulatory bodies also are routinely inspecting the mass catering establishments and products which are available in the market. Saying this, anybody wants to complain, or any information they want to forward to the regulatory body, there is a free call line, 8482. It is a free call line to the EFDA, so we receive a lot of questions, complaints through it. We conduct surveys and respond to the raised questions. So, of course, it is a shared responsibility. Everybody should participate, especially the Ministry of Industry and Trade, Ministry of Agriculture, and other organizations also should be involved in this food safety enforcement. EFDA is working mainly on semi-processed and processed food products which are locally manufactured and imported to the country.</p>
<p>Is there a developing country that have addressed the issue of food safety in relation to food security and could be exemplary?</p>	<p>Especially the food safety issue, is currently a global issue, no country which 100% achieved a food safety issue because there is a food-borne diseases everywhere. That is why WHO in its global general assembly in 2019, decided that the day June 7 is the food safety day to celebrate it at international level. So maybe some countries, some developed countries might have the good food safety and food security and practices. Especially in African countries, it is a critical issue, but I don't have any information about that especially in African regions. But those countries who have strong regulatory authority relatively they implement a better food safety system in their country.</p>
<p>How does climate change affect nutrition, food safety and food security in one country? what is the future work and our country especially related to a multi-sectoral approach?</p>	<p>When we are talking about climate change related to the food safety issues is; when the climate is changed some pests develop and attach to the food. In the dry season some parasites or pests surface and contaminate food products, which directly affect food safety. Concerning the multi-sectoral collaboration, there are different systems to implement the food safety system in different countries. For example, there is a single agency system, multiple agency system, and coordinated collaboration and coordination food control system. As I mentioned earlier, as far as the food safety issue is concerned it touched different organizations. These should come to the table where mandates, duties and responsibilities should be demarcated and act on them otherwise it will be difficult. If good agricultural practices are not in place, we are not safe as Professor Mogessie previously mentioned. We are focusing on farm up to food handler, during the transportation, the storage, etc. The intersectoral collaboration currently in Ethiopia is not that much and needs to be strengthened. Everybody, every regulatory body or government sector and other sectors, are working by themselves (in isolation), and that is why we face a challenge, we are not properly implementing food safety issues as required.</p>
<p><b>Dr. Ferew - Senior Advisor, Office of the State Minister, Federal Ministry of Health</b></p>	
<p>How can we harmonize our message to the public between increasing animal source food and vegetable consumption against</p>	<p>A very good question because it is a question of which comes first, the chicken or the egg? I think the way our technology, in terms of food safety as well as the system that exists, which is developing, but needs a more concerted efforts together. Particularly issues in terms of production productivity, while food safety and food security need to be included within our agricultural and health systems, it is also needed in the education system, so that children know how to do things and properly preserve them. Food safety is addressed but also within</p>

<p>their safety concerns?</p>	<p>our woman groups and others, I think there needs to be continuous kind of knowledge sharing. I think as EFDA was saying, the system is being developed, but it has a long way to go. Yes, we are promoting, we are trying to address the issue of increased consumption of animal source food and fruits and vegetables but also people should also learn about what the challenge is because their children and their infants are dying because of diaharea diseases and food-borne disease which are as you saw quite high proportion in Ethiopia.</p>
<p>Is there a developing country that have addressed the issue of food safety in relation to food security and could be exemplary?</p>	<p>I think there are some countries in the African region. I think there is quite some experience but in terms of food safety there is a long way to go across the continent as well as in the developed countries. I do not have specific examples but there are countries in Europe that have high standards of food safety. Particularly the Scandinavian countries have quite well-developed systems, but food security being linked with food safety is very difficult and I cannot think of any specific country, maybe we need to look out for Rwanda, Ghana, and South Africa maybe if they have some good examples.</p>