



JOINT FAO/WHO FOOD STANDARDS PROGRAMME
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KEYNOTE ADDRESS

MANAGING FOOD SAFETY IN AN ERA OF ACCELERATED CLIMATE CHANGE

(Delivered by Mr. Ralph Regenvanu, Minister of Foreign Affairs and External Trade)

Dignitaries, FAO-WHO Secretariat, Ladies and gentlemen,

It gives me great pleasure to deliver the keynote address at the fifteenth session of the FAO/WHO Coordinating Committee for North America and South West Pacific. This year food safety has been placed front and centre of the global food agenda alongside ending hunger and tackling the consequences of climate change. Two major international conferences on food safety – the first co-organized by FAO/WHO/African Union in Addis Ababa with a food control and public health perspective; and the second held in Geneva on food trade and standards – have recognized, at a very high level, that food safety is instrumental for the achievement of SDG2 and SDG3, among others. As our gathering starts to deliberate on the primary food safety issues for North America and South West Pacific, I would like to draw your attention to our picturesque venue in the South West Pacific, which is effectively Ground Zero for climate change. The rise in sea level, the warming of its temperatures and the consequent impact on food supply from the oceans, the loss of cropland due to saltwater inundation and seepage into freshwater sources are only some of the effects that will impact local food chains and consequently, food security and nutrition. But the influence of climate change will not be confined to this alone, it will affect global agriculture production and the complex supply chains which are a feature of international trade today.

According to FAO (2010), extreme weather events such as floods and droughts may lead to contamination of soil, agricultural lands, water and food and animal feed with pathogens, chemicals and other hazardous substances, originating from sewage, agriculture and industrial settings. Emergency situations after natural disasters are of special concern for water and food sanitation. In vulnerable agro-ecological zones, such as the Pacific these result in immediate damage but also pose challenges for long term recovery and rehabilitation owing to contamination of natural resources such as land and fresh water. The appropriate response, therefore, will be to emphasize our preparedness by collaborating with climate scientists and model post-disaster scenarios for food safety. Relevant Codex texts are available to identify critical points where controls could be strengthened or new ones put in place to ensure safe food for everyone.

How will climate change affect food safety or has it begun to do so already? The industrialization of agriculture and globalization of trade has ensured that farm-to-fork chains, even if long and spanning continents, are being monitored by food control authorities and knowledge accumulated on entry points for food safety hazards and put in mitigating measures in place. However, a changing climate influences the time and place of occurrence of known hazards and introduces the threat of new ones. The occurrence of mycotoxins, for instance, could change with spatial and temporal occurrence of fungal populations. Model scenarios are already available predicting the possible adaptation of mycotoxin-producing fungi to climate change factors. There are number of toxin producing fungi and bacteria and this acclimatization would increase contamination of staples such as rice, maize and animal fodder, which the world's population heavily depends on, directly and indirectly.

Climate affects the growth and physiological development of crops. Changes in temperature and rainfall patterns could affect the production of metabolites and compounds that could be allergens or toxins. These could be accumulated further during storage and during downstream actions in the food chain. Plant defense systems are known to produce allergenic proteins in response to environmental stresses. Data on change in the metabolic profiles will be needed to ensure that the resulting product continues to be safe for consumption after processing and packaging.

The mode of transmission, through the food chain and to humans, of microbiological agents including known ones such as *E. coli*, *Salmonella*, *Listeria*, *Campylobacter* and others could be affected by climate change and

variability. These in turn could affect the seasonality and occurrence of common food-borne diseases such as diarrhea. The lack of hygiene and linked occurrence of food-borne pathogens was determined to be the single biggest cause of food-borne illnesses in the Asian region by the 2015 FERG-WHO study. The same study showed that important zoonotic foodborne trematode infections affect to more than 40 million people per year worldwide and more than 50% global burden of foodborne trematodes is in SE Asia and W Pacific. The impact of climate could be reflected in the alterations of the incidence and frequency of diarrhea or gastro-enteritis caused by, for instance, *Vibrio cholerae* or giardiasis caused by the protozoan *Giardia*. The warming of the waters is likely to impact the occurrence of ciguatera and histamine levels in the fisheries sector here in the Pacific. Algal blooms occur in areas where there are high nutrient levels, a consequence of warming waters. They produce toxins in specific environmental conditions which contaminate both freshwater fish as well as downstream processed products that are traded globally.

While risk assessors and risk managers grapple with imminent and foreseen risks, let's not ignore the challenges on the trade front. Climate change will also affect and possibly change the way crops are grown as well as how livestock and fish are raised, captured or cultured. Changes in crop rotations will also alter the pattern of pest and disease infestations and outbreaks which in turn will modify schedules of agronomic inputs including fertilizers, manures, pesticides and veterinary drugs for livestock and fisheries. Add to this the possibilities that animal health and veterinary issues could also be affected, pathogens that hitherto did not affect food safety or were non-zoonotic could become more dangerous as was seen in the case of avian and swine flu. The Asian region is currently grappling with the twin problems of fall armyworm in maize which has reached there from South America and Africa in 18 months; and the African swine fever. Note the enormous distances these trans-boundary pests and diseases have traversed and the little time required. Neither of them pose food safety risks at this point. But the multiple trade and travel routes between Asia and North America and the South West Pacific ensure that their arrival here is almost a given. It cannot be predicted that food security and safety will remain uncompromised as other reservoirs of pathogens could arise as weather conditions change and pose a threat. The South West Pacific region is faced with another eminent pest problem, the Guam biotype of the coconut rhinoceros beetle, which evidently has been marching eastward across the South West Pacific, leaving a trail of coconut palms destruction in its wake. The Pacific tree of life's very existence in the Pacific is threatened and so is food security.

The general package of practices in agriculture such as the use of inputs including fertilizers, manure, pesticides, veterinary drugs will need to be modified to remain compliant with Maximum Residue Limits (MRLs) as in pesticides residue or veterinary drugs residue and Maximum Limits (MLs) for contaminants. This will not be an easy task, given the number of countries engaged in agriculture production and the plethora of practices that are used across all sectors and at all stages of the food chain. Moreover, as temperatures and moisture content changes, storage facilities and infrastructure – whether crates, containers or warehouses – may need to be modified to ensure that food-safe conditions are maintained.

In the region of the South West Pacific, additional burdens on food safety are also felt from other natural calamities especially volcanic eruptions, earthquakes and tsunamis; events which have displaced a lot of our people in this region. Towards the end of 2017, the government of Vanuatu and its partners had to prepare themselves quickly to manage the biggest volcanic disaster in the last hundred years. The whole island of Ambae which had a population of 11,000 people had to be completely evacuated due to the Manaro Volcanic Eruption. Many of the victims of this disaster remain here in Port Vila and Luganville to this day. In June this year Mount Ulawun in West New Britain, Papua New Guinea, erupted and between 3 – 5,000 people voluntarily evacuated the immediate vicinity of the mountain in fear for their lives. Host communities' resources, especially food, cannot sustain the huge influx of disaster refugees and external assistance must be provided. During these times it is the vulnerable groups which are most at risk. Governments, NGOs and IGOs must step to work around the clock to provide for them in displaced settlements.

Fast foods and/or processed foods companies are riding the digital age and are influencing our food consumption patterns in a very big way. The convenient lifestyle has brought in another undesirable illness, the non-communicable diseases or NCDs for short. The prevalence of NCDs in the world and specifically the NASWAP region is amongst the highest in the world.

As an example, approximately 70% of Vanuatu health budget is spent on managing and treating NCDs patients. Approximately 2 limbs are lost to NCDs in a week. Yes, Vanuatu is a country full of lifestyle diseases sufferers and a big number of people without a limb. These challenges have not stopped us from finding solutions.

In June of this year the Ministry of Agriculture launched the National Organic Policy. Again, in July Vanuatu organized the weeklong Siloa Slow Food Festival on the Island of Maewo. The Slow Food festival movement is to encourage citizens to revert to the old ways of producing and preparing food. Researches have confirmed that the old ways produce the healthiest meals for a person. We have also developed the Gudfala Kakae policy, a framework which is intended to bring all stakeholders to one table to discuss and proactively address the epidemic. The Government endorsed a policy which required that government-sponsored functions must

have at least 50% local content. While not a direct mandate of Codex, I still will recommend that the FAO and WHO look at how they can incorporate some of the principles of the Slow Food Movement into mainstream activities to fight NCD problems in the world.

Even as we are learning more and more about the changes in chemical and microbiological residues as well as natural contaminants such as heavy metals, trade rejections could multiply because of insufficient controls from exporting countries as well as the lack of cause-effect evidence related to climate change. In other words, not only is the safety of food going to be affected by climate change per se, we will perforce have to rethink and redesign the texts of some Codex standards, guidelines and recommended codes of practice. It might be worthwhile for the distinguished gathering to consider whether this will require a faster reaction time and possibly even new ways of standards formulation rather than business as usual. This, as I mentioned earlier, is a changing and developing situation and the sooner we put in place processes that are dynamic and proactive at regional level, the more secure our foreseeable future could be.

This year, we marked World Food Safety Day for the first time. The day with the theme 'Food Safety, everyone's business' focused attention on the enormous burden, both in terms of human life and economic cost, of food-borne illnesses and therefore the importance of the three key stakeholders – regulators, private sector and consumers – playing equal and effective roles. The theme for next year could well be climate change and focused around the effort to understand its full ramifications for food safety. Let me close by echoing these words, "if it is not safe, it is not food". Our challenge then as key stakeholders are to make sure our food security, our food safety and control systems remain relevant and delivering safe foods to our nations.

I thank you for the opportunity to address this important gathering that is being held after three years and look forward to the CCNASWP responding in an informed and effective way to the challenges in the region.