

## The Future on Our Plates

## Sustainable Agriculture and Global Food Security



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Prof. Dr. Stephan von Cramon-Taubadel, Chris Krause, Witoon Lianchamroon

Amid faltering global food security, how can countries cultivate a path towards sustain-able agriculture? The stress of the global economic pressure and worldwide inflation are significantly affecting household expenses. We were joined by experts Prof. Dr. Stephan von Cramon-Taubadel, Chris Krause, and Witoon Lianchamroon on our 4th session of the Asia Talks.

Chris Krause, Japan-based researcher and advisor currently initiating Good Food Institute's Japan operations and formerly serving as the Japan Director of Future Food Institute, recounted Japan's food security situation as precarious. Japan's self-sufficiency rate is very low, marking its lowest record of 38% in 2020. The country relies on imports mainly from the US, China and Australia. Japanese experts are voicing the need for a higher self-sufficiency rate, as well as the country's food strategy needing to be more favorable to the farmers.

Despite the farming industry being tightly regulated, there are a lots of economic risks put on the farmers. During the COVID-19 pandemic, there was not as much support to the farmers as what Japan saw in other countries. Yet most of the discussions in the

highest levels of government center around how to continue to increase Japan's exports, which is booming - Japanese food culture, food products marked the highest export in 2021. Krause pointed out that this is shortterm thinking and does not stabilize the domestic food production. Krause also noted that there is a lot of excitement, discussion and investment around different food technology start-ups, especially in the cellular agriculture sector such as cultivated meat, fermentation-based proteins, and plantbased proteins. The farmer population is aging rapidly, and the younger people are moving more and more into cities. To get young people interested in sustainable food production, it may not look like what it looked like in the past few decades in Japan, given the rise of the food tech industry.

Witoon Lianchamroon, the director of BIO-THAI Foundation, shared that Thailand is currently experiencing one of the worst food security crises, Lianchamroon personally witnessing people in long queues for food, which he has never seen before. In parallel to the pandemic, Thailand faced the attack of African swine fever, destroying 30-40% of the pork and wild boar industry. This has not only affected the producers but also the con





sumers - the low income population spend nearly half of their income on food, and it is even worse for those who live in the city.

Looking at the data of other ASEAN capitals, food prices in Bangkok are the highest on many items. This is not only caused by the global food insecurity but also due to the unbalanced food distribution within the country. Thailand's food chain is greatly affected by the distributions controlled by big corporations (see Lianchamroon's presentation for a detailed chart). While farmers generally benefit from food price increase, that is not true for the 80% of the farmers in Thailand such as rice producers. 44.2% of the small scale farmers and those living in the rural areas have adapted to the pandemic and food crisis by growing crops and raising livestock for their own consumption. Currently, 3% accounts for sustainable agriculture which includes organic farming, totalling around 0.5%. Lianchamroon was pleasantly surprised, however, that within the special committee of the parliament, 423 voted to support the goal of 100% sustainable agriculture for Thailand. Lianchamroon suggested that striving for increased practice of sustainable agriculture will bring good outcomes for Thailand.

Prof. Dr. Stephan von Cramon-Taubadel, Chair for Agricultural Policy at the University of Göttingen since 1999, offered the EU's and global perspective on the matter. There was good progress until the end of the last decade with the number and share of hungry in the global population decreasing until around 2016 the progress slowed down, and when the pandemic hit, it started backtracking rapidly.

Prof. von Cramon-Taubadel suggested that in finding a solution to this global food crisis, we need to change the consumption patterns, adopt more use of technology and most importantly, to look at these problems globally, together. In terms of consumption, consumers are going to have to adjust the patterns especially on livestock products. Each consumer is exerting a demand on such a large area of land and demand for agricultural production capacity outside of the EU. Prof. von Cramon criticised the European Green Deal for focusing too much on Europe alone. The Deal sets the goal of organic farming to reach 25% by 2030 which he accounts as completely unrealistic.

Over the last 25 years, Germany reached the share of 11% with large subsidies and government support, and it does not seem feasible to reach 25% in the next mere 7 years. Furthermore, organic farming has lower yields - meaning if there's less production and the consumption stays the same, then production needs to happen elsewhere on the planet, which will still produce greenhouse gas emissions outside of the EU.

Although organic farming is part of the solution, Prof. von Cramon points out that other factors need to come into play - such as making use of modern technologies like digitalisation, information technology, and robots, in order to make the use of damaging agricultural chemicals more efficient and therefore less damaging, as well as a means to provide agricultural labor.

In regards to global cooperation, trade is going to have to continue to be an important





component of food security. Agricultural production capacity is not distributed the same way as the population on this planet. There needs to be a reliable global trade system where countries are not going to shut down or stall exports when a crisis arises. The Black Sea region is one of the particularly wellsuited spots on this planet to grow staple foods - and with the war between Russia and Ukraine, it severely compromises the ability to produce food.

Last year, Thailand served as a very good international citizen by boosting its rice exports when rice prices were soaring internationally, when they could have stopped their exports to keep its domestic prices lower. Prof. von Cramon-Taubadel points out that it should be the WTO working out these issues, but their negotiations have been without much success for decades.

It may take a few more years until the Farm to Fork Strategy in the European Green Deal to get more concrete, most likely after 2025, after the European Commission's elections in 2024. There needs to be continued efforts on innovation in the food and agriculture space while reviewing what needs to change in the current system, global cooperation, and a new mindset to be able to continue putting food on our plates.



## Relevant Links:

Prof. Dr. Stephan von Cramon-Taubadel https://www.uni-goettingen.de/ en/prof.+dr.+stephan+v.+cramontaubadel/18906.html

Witoon Lianchamroon -**BIOTHAI Foundation** https://www.biothai.org/

Chris Krause - Good Food Institute https://gfi.org/



