

Organic diversity for resilient food systems

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Corona virus has revealed the vulnerability of our food systems, in all areas. Words, such as self-sufficiency, resilience and food security are no more related only to the developing countries. Self-sufficient food system with a low dependency of imported agri-food products is a precondition, a corner stone, to a resilient society. Resilience approach means preparedness to resist external and domestic threats, adaptability for changing conditions and recovery from shocks. Climate change is an example of a global man-made disturbance that is already in the adaptation stage. Many organic principles enhance transformation to a more resilient world.

The three most recent global disturbances have had a long-term impact into our societies. The 2008 Financial crises, originated from the U.S., affected to the availability of credit, increased unemployment and made the primary products' prices fell. Russia set an embargo in 2014 as countersanctions for the western restrictive measures. The import ban hit hard, making the production collapse e.g., in Norway by salmon and Finland by dairy produce. The greatest disturbances caused by COVID-19 into our food systems have been the shortage of workforce, leading to uncollected harvests, increase in food insecurity, changed purchasing behaviour and interruptions in transportation. The pandemic revealed also farmers' unfair status in the food chain. All those man-caused disturbances: one financial, the other political and the third pandemic, have had an impact into our food systems.

Longer an external or domestic crisis last, more it discloses the shortage of resources: In 2019 the net foreign trade value of manufactured food products in Sweden was -32 %. The value of the production inputs is seldom included. That tells us the real state of the self-sufficiency. In 2019, Sweden imported almost 200 000 tonnes of nitrogen and 15 000 tonnes of phosphorus fertilizers, which increases tremendously the negative trade balance, the dependence on other countries and the impact of volatile international prices. That paralyzes the food system in case of an external disturbance. The whole story has not been told, because it discredits the conventional system. The increase of organic share in our food production, gives an immediate remedy for this unhealthy situation.

The transformation towards greater food system resilience needs political, legislative and financial authority, but in parallel to that, the food system networks and knowledge transfer has to be improved, as well as shared values and mutual goals be clarified. Social capital is the second cornerstone. The lesson of the aforementioned three crises is that the ultimate efficiency, simplicity and one-track mindedness has to be replaced by more innovative, collaborative and diverse, all-encompassing approach. Diversity is the third cornerstone. Diversity in animal, crop and plant production, diversity in food manufacturing, product portfolios and marketing channels, are typical for organics.

Being abnormal and survive in this "world of one truth", organic entrepreneurs, along the food chain, have become flexible and dependant on others, building networks with shared values. Diversity is also the acceptance of other sustainable food systems, but the coexistence needs diverse policy instruments. At the end, one has to remember that to support the resilience of mankind, we need nutritious and safe food, like organic food. Organics is a forerunner to the development of food system resilience by its independency of imported inputs, and diversity in production and distribution. The open and collaborative

tradition of organic actors, with largely shared values, ensure the adaptation into the new situations caused by sudden disturbances, and ease in recovery towards new, more resilient world.