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Blog Danielle Tendall



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Danielle Tendall is a scientist at the ETH Zürich: she looks at sustainable and resilient food systems, developing an approach to plan and implement concrete changes in food systems, along with food system stakeholders. Communication between science and practice, and from human to human, is her leitmotiv. In addition, she loves food in all forms, and dabbles with her own veggie patch.

Buzzwords and silver bullets

Science has long contributed ground-breaking perspectives for food security: sustainability, integrated production, sustainable intensification, whole-systems design, agro-ecology, stakeholder involvement, smallholder empowerment, gender equity, and the latest one: resilience. If you haven't heard these buzzwords, you're not "in" on food systems and food security nowadays. They are all concepts which have cropped up over the years, have been the catchphrase of every speech, the silver bullet that was going to haul over our food system and solve its problems. I'm not going to criticize these very valid concepts. But seeing that those food system problems are still around, if anything getting worse, I am left with an uncomfortable feeling of doubt. Why haven't all these brilliant concepts worked?

Let's focus on the newest hype, resilience. I happen to know more about this than the rest, since my research looks at building resilience in food systems. What is resilience? What is resilience? It designates the capacity of a system to withstand, absorb, adapt to disturbances and shocks, without losing its ability to fulfil its functions. A human being is resilient if he/she can recover from a trauma, and continue living with a reasonable degree of happiness. A forest ecosystem is resilient if it recovers after a fire, and grows back to provide habitat, food and services for many species. A food system can be resilient, if it can still provide adequate and sufficient food despite disturbances such as climate change, economic crises or even wars. In a nutshell, resilient systems typically show a lot of diversity, and have multiple weak connections rather than few strong dependencies; they have buffering capacity

and stocks; their processes show redundancy. Most critically in the case of human systems, their actors learn from past experiences, share information, and govern the system in an inclusive way. Resilience has become so popular, because it bundles many previous concepts into one, and theoretically has the power to deal with even extreme uncertainties: if your food system is generically able to adapt to any kind of problem, then you don't have to be 100% sure about each risk scenario for the future. The resilient system has the built-in capacity to take care of itself. Since I started working on resilience last year, I have heard the word on everybody's lips, and seen hope shine in many eyes (yes, mine too). Research centres all over the world, NGOs, industrial consortiums, and governments are picking up the notion, and many efforts are ongoing to make resilience happen in food systems.

So let's keep that hope: we need to make sure that resilience will not just stay a fancy buzzword. The hype helps to spread the word, to introduce a new idea throughout the global food system. That's awesome, because we need everyone to chip in if we want to make it work. Like so many previous concepts, resilience has the potential to guide a transformation in the way of thinking and planning food systems. But we also need to accept that it's NOT going to be the silver bullet. Resilience will not just work on its own, like a magic recipe. Beyond the buzzword, it will take ongoing hard work, effort, self-questioning and let's dare to say it: sacrifice, to get there. Until we are truly willing to make the necessary changes happen in food systems, and accept that there will be costs to bear, privileges to share, and priorities to revise for each of us, resilience will remain just another buzzword. We should not wait for science to find the new silver bullet. There never will be one. Many solutions are already there for the taking. It's just up to us.

