

**Session Biosphere: April 13th 09.00 hrs**

**1s5 Nature-based solutions for circular food systems under climate change**

## **A transition towards a circular agricultural economy with a focus on nature-inclusive initiatives**

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The Dutch government advocates a transition to circular agriculture, in which nature-inclusive agriculture is one of the important perspectives (LNV, 2019). From the private sector, we see all kinds of initiatives emerging, both from individual farmers and from other parties in the food system. There is a wide variety of initiatives - some very successful, others languishing. A lot is happening at once, with the transition going frustratingly slow for some, but so fast for others that they can barely keep up. That is why we have constructed a conceptual framework with two axes: scaling up and transition range. The framework is filled in with five initiatives in the field of circular nature-inclusive agriculture, from primary producers with a regional focus. We interviewed key stakeholders from these initiatives about the background and the development up to now.

Key concepts are the current regime in farming and niche developments (e.g. Smits et al., 2020). Regime is the dominant, common way of producing, but this can be put under pressure by social developments. Lesschen et al. (2020) state that in the current regime, maximalisation of land productivity is paramount and that this is accompanied by monocultures and extensive use of resources from outside the farm, such as animal feed, fertilizers and pesticides. Niches are new, emerging ways of producing which may be. Niches may scale up or form clusters among each other, but they could also remain small and serve a specific group of stakeholders. When niches develop into generally accepted modes of production, they can become part of the regime. Circular and Nature-inclusive agriculture is still such a niche.

With help of the framework we show that initiatives have developed at different scaling-up levels and transition ranges. Some have reached a stage of a stable niche. However, we do not (yet) see upscaling to a level where the existing regime has been overthrown. Many initiatives remain 'experiments', but there are also initiatives that have already proven themselves and are even being followed. This imitation can lead to changes in the

regime depending on the number of followers, such as greater attention to soil quality and manure use. In this sense, it is more a case of evolution (gradual shifts) rather than revolution (the overthrow of the regime).

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