

Innovation Project

Food and Agriculture Cluster



Natural Fertilizer Recycling Company (NDV): Multiplier and Data Provider for Regulating Land-Use Conflicts from the Perspective of the Liquid-Manure Problem

Due to growing animal stocks and increasing numbers of biogas facilities (fermentation residues), as well as the limited possibilities for use as fertilizer, handling liquid manure involves ever greater distances. In the future therefore, important steps will involve both an increase in transport-worthiness and a reduction of transport routes and quantities of organic nutrient-containing materials produced; this is especially true for liquid manure and fermentation residues. New, climate-adapted business models need to be developed. During the course of the **northwest2050** project, The Naturdünger-Verwertungs GmbH (Natural Fertilizer Recycling Company/NDV), functioning as an expert and a multiplier, provided data on background knowledge especially for the presentation series Land-Use in the Context of Climate Change in the Northwest.

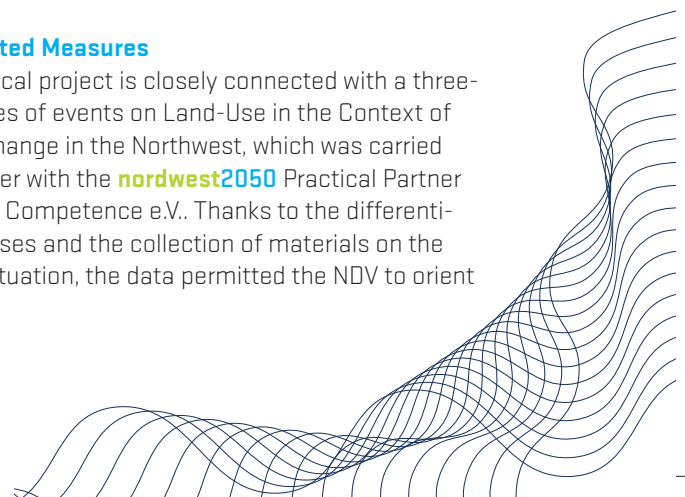


The Need for Climate Adaptation

Climate change in northwestern Germany is likely to enhance competition for land. The population development, the limited possibilities for removing organic nutrients, and the expansion of renewable energies are even today increasing the pressure on the land. Especially for this reason, the important agriculture and food sectors are faced with new demands.

Implemented Measures

This practical project is closely connected with a three-stage series of events on Land-Use in the Context of Climate Change in the Northwest, which was carried out together with the **northwest2050** Practical Partner Centers of Competence e.V.. Thanks to the differentiated analyses and the collection of materials on the regional situation, the data permitted the NDV to orient



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its participatory approach toward regulating land-use conflicts toward key regional actors and their interests and problems.

Method and State of Implementation

The presentations were conceived with the goal of a regionally specific management of land-use conflict situations in the context of a global problem - climate change and the endangerment of food security. The contribution of the NDV was the development of a substantive analysis and the help in designing the concept for the presentations.

One example of the conflict between agriculture and water management based on the fact that fertilization with industrial fertilizers, fermentation residues have an impact upon groundwater quality and, in sensitive areas, have already caused problems. There is an increasing need for action here, in order to arrive at solutions acceptable to all participants.

This problem affects a large number of actors from various branches and segments, and is extremely complex. In addition to interviews, the mediation of regional contacts and continued collection of material on the current situations, an exchange continued throughout the course of the project which on the one hand led to the drafting of the Aurich Declaration (see the Centers of Competence e.V. newsletter), and on the other, sparked follow-up projects which are currently being planned, in which dialogue and the achievement of long-term sustainable regional land-use regulations are to be continued and concretized.

Results and Transferability

A key result is the realization that the achievement of concrete steps for regulating land-use conflict situations requires the experience and knowledge of actors on the regional situation such as, in this case, on the issue of organic nutrients. This first of all involves the constellations of actors and the communications between them.

In order on the one hand to regulate conflicts, and on the other to achieve changes in land use in spite of great dependency on the limits set by government policies, it is important to first of all establish a dialogue so that use claims to the land can be negotiated on the basis of new preconditions. Moreover, such issues as water management could be of interest in this context beyond the scope of the project **nordwest2050**. A transfer to other regions and/or other sector clusters of the procedures developed with the input from and the methods of the NDV is also possible.

nordwest2050 is one of a total of seven projects funded by the Federal Ministry of Education and Research (BMBF) in the context of the KLIMZUG Program (Klimawandel in Regionen zukunftsfähig gestalten - Creating Climate Change-Ready Regions). In 2012 **nordwest2050** was awarded as an official project of the United Nations' World Decade on Education for Sustainable Development. The goal of the adaptation research is to develop strategies and measures by means of which regions and industries can be better prepared for life and business under the conditions of climate change. This is on the one hand designed to strengthen future competitiveness, and on the other to promote the development and use of new technologies and procedures for adaptation to climate change.

