

**Junior research group “PoNa – Shaping nature: Policy, Politics and Polity. Rural Development and Biotechnology in Agriculture between Criticism and Vision”**

**Institutional framework program: Social-ecological Research Funding Programme**

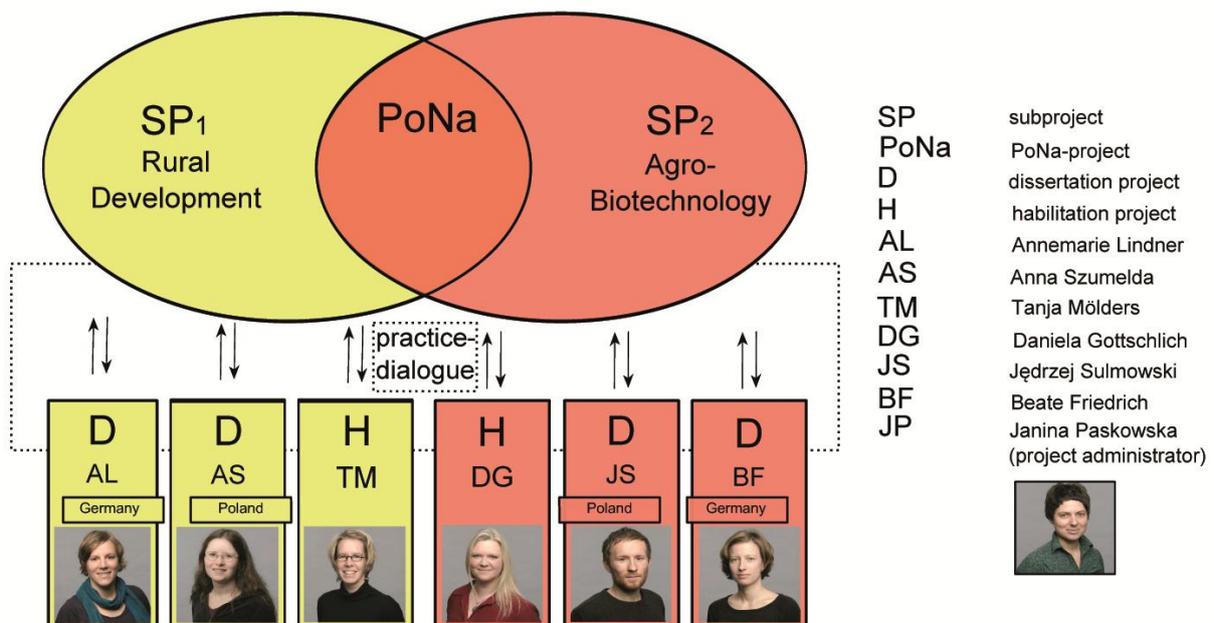
The interdisciplinary junior research group PoNa is part of the Social-ecological Research Funding Programme (SÖF) which was launched by the Federal Ministry of Education and Research (BMBF) in 1999. Social-ecological Research is a new kind of practice- and problem-oriented research which focuses on sustainability issues at the interface between nature and society. Diverse topics such as social transformation, innovation in governance or material flows are analyzed with the objective of developing strategic measures for a sustainable future. SÖF is part of the national wide “Research for Sustainability” (fona) ([www.sozial-oekologische-forschung.org/en/724.php](http://www.sozial-oekologische-forschung.org/en/724.php)).

The PoNa-project is located at Leuphana University Lüneburg, in the north of Germany.

**The Project**

Facing social ecology as the science of societal relations to nature the crucial question is how can crisis-laden relations between nature and society in a globalized world be recognized, understood and, in turn, formed (Becker/Jahn 2006). Based on this concept of societal relations to nature PoNa’s central research question is how policy, politics and polity shape nature as well as the diverse and interactive relationships between nature and society.

In its research PoNa is exemplarily targeting two policy arenas: rural development (subproject 1) and biotechnology in agriculture (subproject 2). PoNa is organised as a comparative Polish-German research.



## Central research questions

- What kind of nature regulation can be identified in political processes, programmes, strategies, etc. concerning rural development and agricultural biotechnology on the EU level, as well as on national level in Germany and Poland?
- Which positions can be compiled, concerning the understanding of sustainability taken as basis by PoNa? Are questions of power relations, gender issues, precautionary principles, etc. taken into account?
- Which conflicts are ensued for rural development by differing and conflicting positions (heterogeneity of rural areas, plurality of regional significant politics, orientation towards sustainability vs. orientation towards growth, etc.)?
- Which trade-offs arise from co-existence of two forms of agriculture, one, which cultivates genetically modified crops and one, which doesn't? How are these conflicts being dealt with?

## Milestones of research activities

PoNa's aim is to develop recommendations on procedures, structures and contents that will contribute to transformation processes in rural development and agricultural biotechnology towards sustainability. Therefore, PoNa is going to conduct research on the following issues:

### ***2010: A critical, emancipatory understanding of sustainability***

During the first research period the research group has developed an understanding of sustainability that is shared by all members of PoNa. This common conception of sustainability is to serve as a "bridging concept" and has three different functions. Firstly, it reveals the target knowledge and identifies the contents and normative positions of PoNa. Secondly, it provides the researchers with categories and sub-categories for the analytical framework, serving both a methodical and analytic function. Thirdly, the bridging concept helps PoNa in the interdisciplinary research process to integrate terms, concepts and theories. The core aspects of the critical, emancipatory perspective to achieve intra- and intergenerational justice are the critique of domination, the deconstruction of dichotomies and separations that cause socio-economic crises, a search for new kinds of interconnectedness between these dichotomies and separations as well as the questioning of alleged social certitudes. PoNa's view of sustainability comprises these nine categories: the question of how policy, politics and polity shape nature requires (from our critical perspective) not only a consideration of the understanding of nature (1) and policy, politics and polity (2), but also of economics (3), power, and domination (4), gender relations (5), strategies of efficiency, sufficiency and consistency (6), time (7), knowledge (8) and reflexivity (9).

The results of this conception are documented in PoNa-paper No. 1 ([www.pona.eu](http://www.pona.eu)).

### ***2011: Descriptive and interpretative analysis of central political documents in the fields of rural development and biotechnology in agriculture***

Currently the subprojects are working on this issue (for details see below).

### ***2012: Identifying best practices***

We will identify against the background of our understanding of sustainability where and how policy, politics and polity shape nature in sustainable ways.

### ***2013: Future Scenarios***

In two scenario workshops, perspectives and future paths will be developed, discussed and validated together with scientific partners and practitioners.

## **Methods of research**

Within PoNa different methods of research are applied. The analysis of central political documents in the fields of rural development and biotechnology in agriculture is organized as a discourse analysis. In the course of the scientific qualifications (dissertation and habilitation projects) various interview techniques will be used. In order to bring together perspectives from different disciplines as well as perspectives from practitioners both interdisciplinary and transdisciplinary methods of integration will be applied. The scenario workshops will be one of those integration methods.

## **Subproject 1: Rural development**

### **Overall scope and research issues of subproject 1**

Europe's rural areas differ considerably in terms of history, land use, and the social-economic situation of the population. The heterogeneity of rural areas exists not only between nations but also within countries (e. g. suburban rural areas vs. peripheral regions). Regarding the significant policies for rural development, the EU agricultural policy is especially relevant for the field. In the current funding period the relevant EU policy is the European Agricultural Fund for Rural Development (EAFRD) which aims towards competitiveness as well as sustainable development.

The main objective of the subproject 1 is to analyse how rural policies, especially European agricultural policy and its national implementations in Germany and Poland, shape societal relations to nature. Therefore, we examine the various understandings of nature and the ways, in which these understandings of nature form different strategies, programmes, measures, and practices. This analysis scrutinizes an understanding of sustainability which is primarily competition-oriented. Furthermore, we try to identify forms of economy which enable a sustainable shaping of nature.

We are going to conduct research on the following issues:

#### *1. Analysis of central political documents in the field of rural development*

Currently, our research is dealing with the descriptive and interpretative analysis of documents of agricultural policy such as EAFRD regulation and its implementation in Germany and Poland. Our analytical framework is based on the concept of sustainability that was developed by the PoNa-Team as a first step of our research (see milestones 2010, 2011).

#### *2. Analysis of the concept of multifunctionality*

Multifunctionality is a European concept to realize a sustainable agriculture and land use. It is recognized that agriculture does not only produce food and fiber but also various non-commodity outputs such as environmental services, biodiversity, cultural landscapes, rural ways of life, etc. As a political and economic concept multifunctionality asks how farmers could be remunerated for their contributions to a sustainable rural development. Based on a critical, emancipatory understanding of sustainability as developed in PoNa we analyse to what extent multifunctionality can be qualified as sustainable. We assume that the process of commodification of non-commodity outputs involves the risk of an intensification of crises rather than contribute to innovative approaches of alternative, (more) sustainable economies.

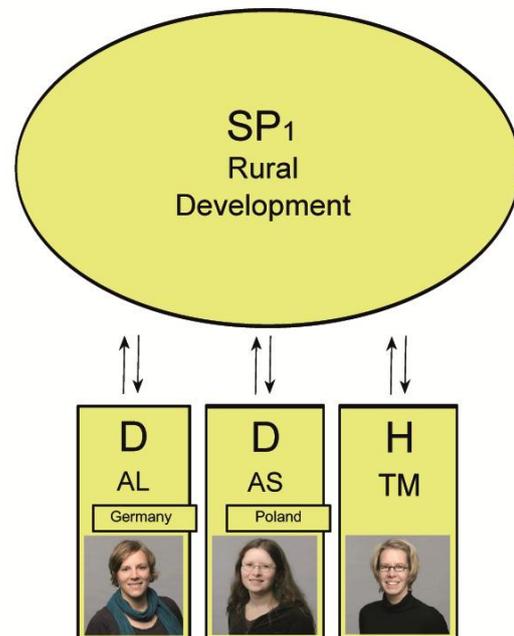
## Design of the subproject 1

Three researchers are involved in this subproject. Apart from the joint work on the issues presented above they contribute to the project by carrying out their own doctoral or habilitation thesis:

**Anna Szumelda** is a landscape ecologist. In her doctoral thesis she examines the contribution of small-scale-farming to sustainable rural development. She assumes that small-scale-farming can contribute to such a development by strengthening local economies, thus preventing rural areas from depopulation and providing a sustainable form of agriculture. Therefore, she brings together the concept of societal relations to nature with the debates on degrowth. In her empirical study Anna Szumelda will conduct interviews with small-scale-farmers in different Polish regions with regard to ecological, economic, social and agro-structural differences within the country.

**Annemarie Lindner** is an environmental scientist. In her doctoral thesis she analyses the possibilities of shaping the societal relations to nature in sustainable ways by using the example of agrobiodiversity. Annemarie Lindner is particularly interested in the relationship between protection of agrobiodiversity and its human use. The existing diversity was shaped significantly by human activities and can hardly be maintained without any further use of it. Due to an intensification of agriculture through an orientation towards a competitive, industrialized system aspects of protection and use of agrobiodiversity have been more and more separated. Annemarie Lindner analyses this dualism at the programmatic level in German policies of rural development and evaluates case studies in which a sustainable connection of protection and use seems to be successful.

**Tanja Mölders** is an environmental scientist. In her habilitation thesis she aims to develop a socio-ecological understanding of rurality. Therefore she brings together different approaches of rurality as they have been developed in different academic disciplines such as rural sociology, geography, planning sciences, etc. In particular she tries to overcome the dichotomic pattern between an either material or symbolic understanding of what is rural. While focusing societal relations to nature as relations to nature and gender relations Tanja Mölders substantiates her understanding of rurality. Finally she examines her theoretical findings in an empirical study. Therefore she uses Anna Szumelda's and Annemarie Lindner's studies on small-scale-farming in Poland and on agrobiodiversity in Germany to work out the relations to nature and gender relations within this research fields.



## **Subproject 2: Biotechnology in agriculture**

### **Overall scope and research issues of subproject 2**

Since the mid-1990s the use of genetically modified organisms (GMOs) in agriculture has become one of the most hotly debated issues. The controversy started over the promise of making this world a better place. Scientists and organizations in favour of GMOs argue that these organisms would help agriculture to be more effective. Opponents of GMOs, on the other hand, reject the idea, that agro-biotechnology can provide a clean technology for enhancing eco-efficient agro-production and health benefits for the poor. Rather, they refer to multiple risks: the contaminated food chain, inherent hazards for both eco-systems and humans, and socio-economic problems such as property rights or questions of patenting of genes and gene sequences.

The main objective of the subproject 2 is the variety of the political processes in the multilevel system accompanying the introduction or the rejection of GMOs as food and feed in the EU, Germany and Poland. We analyse these political processes and investigate the ways they change the relations between societies and nature. Furthermore, we try to identify sustainable and unsustainable elements of these processes in order to finally formulate recommendations for shaping societal relations to nature in the field of agricultural biotechnology in a sustainable way.

We are going to conduct research on the following issues:

#### *1. Analysis of central political documents in the field of agricultural biotechnology*

Currently, our research is dealing with the descriptive and interpretative analysis of political documents such as the GMO law in Poland and Germany as well as the directives and regulations on the EU level. Our analytical framework is based on the concept of sustainability that was developed by the PoNa-Team as a first step of our research (see milestones 2010, 2011).

#### *2. Analysis of images used in campaigns about GMOs: A picture-discourse-analysis*

While the pros and cons are well known in the debate about GMOs in agriculture, little attention has been paid to the pictures which have been used by actors of both sides and to the question how they illustrate and correspond to the respective point of view. Following the results of the discourse on the “visual turn” in the social sciences we analyse how pictorial messages are produced and what underlying ideas they transport. GMOs are often shown either as monsters or as the outcome of the fine art of engineering sciences. We will identify how illustrators play with the recipients’ fears on the one hand, and we will highlight, on the other hand, the attempt to give people a sense of security through images which say: “Everything is under control”. We point out that what is frequently employed for these purposes, especially by promoters of GMOs, are graphic metaphors from the medical and military areas.

#### *3. Research on conflicts resulting from the coexistence regulations*

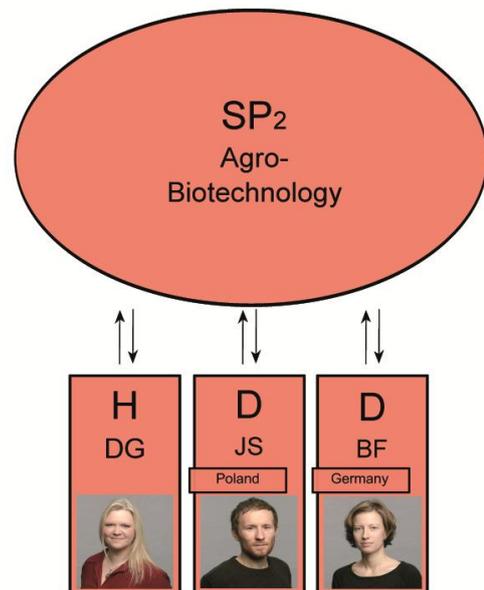
Agro-biotechnology can be seen as a test of democratic accountability for societal choices. The invention and release as well as the commercial use of GMOs in agriculture have given rise to numerous conflicts in different arenas and on different levels in the political multilevel system. One possible answer to the question “GMOs – yes or no?” is coexistence. This concept, introduced by the EU in 2002, promises to answer “yes” and “no” at the same time by enabling both the cultivation of GM and non-GM crops. We argue that the concept of coexistence and its proposed implementation have failed to resolve the existing conflicts while new conflicts and problems have been generated through the individualization of choice. This concept does not only comprise the coexistence of GM and non-GM crops, but also that of farmers with different positions and interests and, finally, the coexistence of different types of agriculture and society. We see the debate over agro-biotechnology as much more

than a mere conflict between those who are in favour of or against GMOs: We discuss the kind of natural and social order that is co-produced through the use of the concept of coexistence.

## Design of the subproject 2

Three researchers are involved in this subproject. Apart from the joint work on the issues presented above they contribute to the project by carrying out their own doctoral or habilitation thesis:

**Jędrzej Sulmowski** is an environmental scientist. In his doctoral thesis he analyses the use and construction of expert knowledge in the discourse about the new GMO law in Poland. One of the main characteristics of this discourse is the dominance of scientific knowledge. Legislative actors deal with scientific expertise as it was free from politics and refer to it as “sound science” although social studies of science and technology have shown all over again that scientists and scientific evidences are endowed with societal influences and by no means “objective” or “neutral”. These insights seem mostly not to be reflected and integrated in legislative work on agricultural biotechnology in the EU and in Poland. Furthermore the growing dependence on expert advice raises the question, whether decision making in the field of biotechnology can be seen as democratic or not. The main goal of the dissertation is to identify conditions for reflexive knowledge governance as a response to the problems described above.



**Beate Friedrich** is an environmental scientist. In her doctoral thesis she analyses local conflicts on agricultural biotechnology. The cultivation of genetically modified crops undoubtedly causes conflicts. However, the German state did not intervene between 2005 and 2008. Government and public authorities set policies, but in the end farmers could choose whether to grow genetically modified crops – or not. Consequently, conflicts on agricultural biotechnology were transferred to rural areas. Beate Friedrich proposes to analyse these questions through a survey of three regions. The investigation assumes that these conflicts are antagonisms or contradictions in conflict sociology terms and that mainly contradictions relating to societies' relations to nature play a central role. Consequently the dissertation will refer to both conflict sociology and to concepts of societies' relation to nature.

**Daniela Gottschlich** is a political scientist. In her habilitation thesis she analyses the question of shaping nature as a question of democracy. By using biotechnology in agriculture as an example she examines how, by whom and where in the multi-level political system new forms of societal relations to nature are negotiated. Daniela Gottschlich focuses on the relationship between democracy, sustainable development, and the governance of conflicts over the use and the implementation of biotechnology. She elaborates analytical perspectives in three broad categories: namely by 1) diagnosing the EU's democratic deficit and the processes of (de)politicization, 2) reflecting the conflict about the use of GMOs in agriculture with respect to the conditions of uncertainty and non-knowledge and the precautionary principle and 3) identifying the transnational GMO-free movement as a new political actor and as a change agent for social-ecological transformation.

## **Collaboration and partners**

The transdisciplinary collaboration is being conducted via praxis dialogues, which are a constitutive component of the two workshops "Policies of shaping nature I and II". Besides the German and Polish Partners who are relevant for the whole team, actors from practical fields will be included in the dialogues during the empirical study.

Main partners in Germany:

- Deutsche Vernetzungsstelle Ländliche Räume (dvs) in der Bundesanstalt für Landwirtschaft und Ernährung (BLE), Deichmanns Aue 29, 53179 Bonn (German networking hub for rural areas (dvs) in the Federal Agency for Agriculture and Alimentation (BLE))
- Arbeitsgemeinschaft bäuerliche Landwirtschaft (AbL e.V.), Koordinationsstelle Gentechnikfreie Regionen, c/o Gewerkschaftshaus, Heiligengeiststraße 28, 21335 Lüneburg (Working group for rural agriculture (AbL e.V.), Office of Coordination for genetical engineering-free regions)

## **Literature and links**

Becker, Egon/Jahn, Thomas (Ed.) (2006): Social Ecology. Grundzüge einer Wissenschaft von den gesellschaftlichen Naturverhältnissen. Frankfurt/New York: Campus

Jahn, Thomas (2000): Social-Ecological Research – Perspectives and Conceptual Framework for a New Funding Policy. Synopsis of the Report for the German Federal Ministry of Education and Research. ISOE-DP 8 ([www.isoe.de/english/projects/sozoek.htm](http://www.isoe.de/english/projects/sozoek.htm))

[www.pona.eu](http://www.pona.eu)

[www.sozial-oekologische-forschung.org/en/724.php](http://www.sozial-oekologische-forschung.org/en/724.php)