Stakeholder management in regional design and development processes: how to involve farmers?

Ina Pinxterhuis and Francisca Caron-Flinterman

Livestock Research, Wageningen University and Research Centre, P.O. Box 65, 8200 AB Lelystad, The Netherlands, ina.pinxterhuis@wur.nl, francisca.caron-flinterman@wur.nl

Abstract: *The project 'Echt Overijssel!' aims to meet regional nature, landscape and agricultural goals by designing and implementing the concept of regional agriculture: new collaboration concepts and alternative product chains. Involving farmers in this process is necessary but complex. Many farmers struggle with keeping their businesses profitable and hesitate to put time and effort in processes that do not explicitly address their immediate interests. To address these interests and at the same time develop common goals and concepts, we followed a dual approach. In a forecasting route we established three farmers' networks that focus on topics close to farmers' everyday management and facilitate knowledge co-creation. These networks are to provide building blocks for regional agriculture. As a backcasting route, we launched an interactive design process that starts with developing shared visions and continues with the design and implementation of common concepts of regional agriculture. Despite this set-up, we experienced that active farmer involvement in the project was not optimal. Main causes are the resilient cultures and routines of both farmers and process facilitators, the large diversity of participants, and the differences in time horizon between farmers' needs and interests and the objectives of the project. We conclude that adequate farmer involvement in regional design processes requires specific social and networking skills of both facilitators and participants in order to facilitate mutual learning, knowledge co-creation and cooperation. Starting the design process with the active and early involvement of a small selection of interested and visionary farmers could help the process even more.*

Keywords: *regional agriculture, stakeholder participation, learning networks, interactive design, forecasting, backcasting*

Introduction

Dutch agriculture faces the transition from an orientation on production efficiency towards an orientation at sustainability, comprising a broader range of goals, such as biodiversity, environmental protection, animal welfare, recreational functions, local product chains, etc. Policy makers (regional, national and international) aim to support this transition by designing new subsidy systems (e.g. CAP reforms) and adapting laws and regulations. In addition, project financing is a way of directing research, education, and advice towards the development and implementation of sustainable agriculture. The implementation of sustainable agriculture implies the change of farming systems and management, and thus the active involvement of farmers.

At the same time, the topics to be addressed on the route to sustainability cross the boundaries of individual farms. Therefore regional approaches are required. 'Echt Overijssel!' (Truly Overijssel!) is a project that aims to meet regional sustainability goals by combining regional approaches with the active involvement of farmers. This involvement is based on normative and instrumental motives. Normative motives refer to the democratic right that farmers have to be involved in policy making that concerns their own farming systems. Instrumental motives refer to the better societal embedding and anchoring of strategies developed in the project and to the unique expert knowledge local farmers can provide in the process.

However, involving farmers in such processes is not straightforward. Many farmers in contemporary crises struggle with keeping their businesses profitable. They might hesitate to put a lot of time and effort in activities that are to meet long term regional goals but do not address their daily life needs and even might entail changes in their own farming systems. In this paper we elaborate on a methodology that aims to align farmers' interests with regional goals, using the project Echt

Overijssel! as a case. We start with sketching the background and methodology of the project. Subsequently, we describe and reflect on some experiences concerning farmer involvement during the first half year the farmers participated in the project.

Echt Overijssel! – the background

In Overijssel, large areas of farmland with the status of cultural heritage exist. This implies restrictions to farming enterprises, especially when it concerns intensification or expansion. In addition, large areas in Overijssel fall under nature conservation schemes. This again restricts farmers' possibilities for expansion. In this regional context of various claims on land use, three different challenges come together:

- Agricultural entrepreneurs need innovation or expansion in order to keep their businesses economical viable.
- Nature conservation organizations own and manage large nature reserves and need affordable ways to meet their biodiversity goals.
- In the Netherlands organic farms are strongly specialized. In order to close nutrient cycles on a smaller scale, an increase in production of animal feed in the vicinity of livestock farms is needed.

These challenges have inspired the contours of the project Echt Overijssel!. Strategies to meet these challenges within the region entail new forms of land use and cooperation. For example, areas with nature conservation demands may serve as an additional source for agricultural production, demanding new ways of cooperation between farmers and nature conservation organizations, while guaranteeing the preservation of biodiversity values in these areas. At the same time, exchange of production resources (animal feed, manure) amongst specialized farms contributes to closing nutrient cycles at a regional level. These strategies can be supported by improving the market value of products from these farms by product and market development, thus enhancing their economical viability.

The objective of the project Echt Overijssel! is to meet regional nature, landscape and agricultural goals by designing and implementing new collaboration concepts and alternative product chains in agriculture. These concepts of 'regional agriculture' strive for the integration of biodiversity and closed nutrient cycles within agricultural systems in a profitable way.

Echt Overijssel! is initiated by Vereniging Natuurmonumenten (the Dutch society for nature conservation), Stichting Dianthus (a cooperation of agricultural entrepreneurs that produce regional products), and Wageningen UR Livestock Research (a research institute with a focus on innovation processes in livestock production). In 2007 and 2008 the project was set up in interaction between these three initiators. In the winter of 2008/2009 the project was communicated externally and participants were recruited. In the summer of 2009, the execution of the project started. The project is financed by the Province Overijssel; the Ministry of Housing, Spatial Planning and the Environment; and the Ministry of Agriculture, Nature, and Food.

Stakeholders participating in the project are: Stichting Dianthus, Vereniging Natuurmonumenten, the livestock feed industry, a diversity of farmers (dairy cows and goats, pigs, beef cattle, crops, horticulture), agricultural contractors, and some local residents with small enterprises in the field of agriculture or nature conservation. Furthermore, several knowledge institutions and regional and sectoral organizations are involved as experts or facilitators.

The overall guidance on strategic decisions within the project is provided by a steering committee consisting of representatives of the initiators, the Dutch farmers association, the organic farmers association, the Province of Overijssel and municipalities involved.

Theoretical framework

The approach followed in Echt Overijssel! builds on the theory of System innovations. The problems or challenges central in the project can be considered 'complex' problems since they are multi-facet

(involving environment, people, nature, products, etc.), multi-actor (involving a diversity of regional stakeholders), and multi-level (involving both the level of the individual farmer and the regional level). This kind of problems cannot be addressed nor solved in a traditional, linear way but demands a so-called system innovation approach that reflects all facets, actors and levels. The project aims to develop new regional 'regimes', consisting of new regional networks (co-operations, product chains), with new ways of thinking and acting, new rules and routines.

System innovation processes can roughly follow two different routes (see figure 1): forecasting and backcasting. The forecasting route starts with individual innovative initiatives which are nurtured, strengthened and extended and together contribute to a change of regimes in an incremental way. The backcasting route starts with formulating future visions and goals and then defines necessary steps to achieve these goals while identifying possible obstacles to be overcome (the 'transition points').
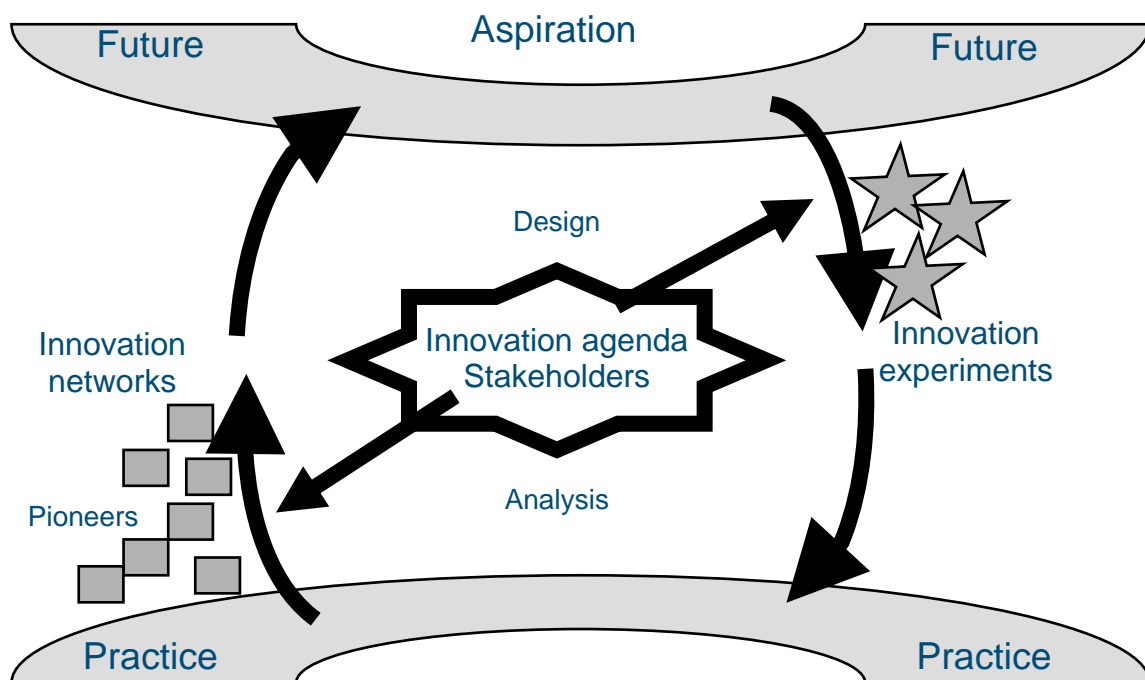

Figure 1. System innovation: forecasting and backcasting (Vogelezang and Wijnands, 2009).

Forecasting

The forecasting route builds on incremental changes in practice towards sustainability. For this route, a methodology of networks can be used, for example based on the theory of living networks by Wielinga and Vrolijk (2009). In a living network, individual participants exchange knowledge and experiences, inspire and reflect on each other, and together form a knowledge co-creating community or a Community of Practice (Wenger, 1998; Regeer & Bunders, 2003). Instead of starting with a well-defined mission or goal, the starting point is the people themselves and their energy and ambitions. While interacting in an atmosphere of mutual trust and respect, these people together can develop a common vision and common goals. Network facilitators or coaches need to guide these processes in a conscious and reflexive way (see figure 2).
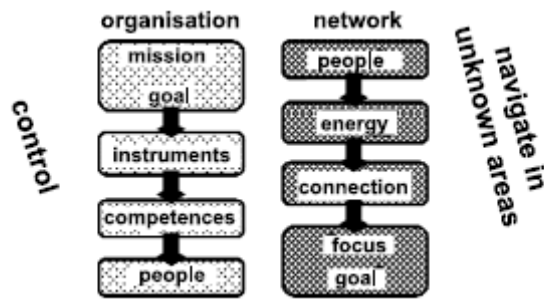
Figure 2. Management of organizations and networks. From Wielinga & Vrolijk (2009).

Backcasting

The backcasting route builds on the design of a sustainable future vision. Quist and Vergragt (2006) describe a methodology for participatory backcasting. This methodology consists of five stages or steps:

1. strategic orientation on problem and goals
2. construction of sustainable future visions
3. backcasting
4. elaboration, analysis and defining an (action) agenda
5. embedding of results and generating follow-up and implementation

In the backcasting stage, participants are involved in workshops to define necessary steps for realizing the transition from the current situation to the desired future vision.

Bos et al. (2009) describe a reflexive interactive design approach which is a specific interpretation of the process of vision formulation and backcasting. In this approach stakeholders are involved in a step-wise deliberative design process that aims to design new sustainable livestock systems. Important steps are common vision formulation, the identification of actor (and actant) needs, the definition of central functions, and the translation and combination of needs and functions into newly interactively designed concepts. This process is transdisciplinary in character, since it connects different types of actors with different types of knowledge and expertise into a common co-creating process.

Echt Overijssel! – the approach

Echt Overijssel! addresses the three regional goals of biodiversity, closed nutrient cycles, and profitability by combining the routes of forecasting and backcasting. In three learning networks individual initiatives are stimulated, thus reflecting a forecasting route, resulting in small incremental steps towards an largely open-ended future. An interactive design process reflects a backcasting route, starting with defining a common future vision and subsequently defining necessary actions. We believe both routes can reinforce and accelerate each other, ensuring both the connection to individual interests and initiatives and the guidance by overarching goals and ambitions.

Of course, individual steps and actions need to be aligned with the overall goals. However, since participants were recruited with the overall goals broadly outlined, it was assumed that they share more or less the same mindset and endorse the overarching project ambitions. In that case, defined steps and actions by participants contribute to the development and realization of the concept of regional agriculture.

The learning networks started in June 2009 and will be accommodated until June 2011. The interactive design has a more diffuse start with a first meeting held in September 2009. Once an action agenda has been set up, the project will facilitate the implementation until 2013. The following sections describe the approach as well as the steps taken in the first half year.

Forecasting: Learning Networks

In three learning networks, farmers and other (agricultural) entrepreneurs are to define common goals, exchange ideas and experiences, perform experiments, and develop shared knowledge on a diversity of practical issues, all in an interactive way, carefully guided by network coaches. This approach is based on Wielinga & Vrolijk (2009) and Regeer & Bunders (2003), see above.

Farmers and other entrepreneurs could apply as participants of the project themselves. Subsequently, all applicants were interviewed on the context of their enterprises as well as on personal interests, challenges, and ambitions. All applicants showed their personal interests and ambitions were consistent with the overall project goals and were invited to participate in the project.

In order to achieve and maintain their commitment during the project, participants' interests need to be addressed in an explicit way. Therefore participants were divided among three learning networks, on the basis of the information given in the interviews. Each network focuses on a different aspect of regional agriculture: (1) animal feed and nutrient cycles, (2) integrating biodiversity in cropping, and (3) product-market concepts. It was made clear that participants could stop or switch to another network when it would become apparent there was no 'click' with other participants or when insufficient common ground was found.

The topics addressed within these networks are close to everyday management and to current interests and questions of participants in order to make participants feel recognized and acknowledged. In addition, building a trustful atmosphere aims to stimulate farmers to exchange ideas and to work together at shared goals. These shared goals need to be aligned with the overall goals of the project in order to provide building blocks for the overall concept of regional agriculture.

The following activities were defined as essential, although not chronological, steps within the progress of the learning networks:

- vision development

- definition of chances and challenges

- a diversity of actions to support learning:

    - exchange of knowledge and experiences

    - experiments and data collection

    - field trips etc. for inspiration

    - consultation of experts

- reflection on the meaning of actions and results for the total concept of regional agriculture.

- external communication

In June 2009 all participants met each other for the first time in a start-up meeting. In this meeting the framework of the project was explained again, mutual expectations were exchanged and discussed, and the three network groups made a start setting up their working plans. Since then, the three networks regularly meet, sharpening their various goals and defining activities to work towards these goals.

Backcasting: Interactive design

For the interactive design of a regional agriculture 'system', we used the methodology of Quist & Vergragt (2006), with elements of Bos et al. (2009) for the translation from a common vision into an implementable concept. Initially ideas and results of earlier actions or experiments are exchanged and project goals are formulated (step 1 of Quist and Vergragt, 2006, see above). Then shared future visions on regional agriculture are formulated (step 2). Subsequently, essential needs and functions are identified, which are to be integrated and translated into overarching concepts for regional

agriculture (step 3, using methods of Bos et al., 2009). Based on these concepts concrete goals and actions are identified (step 4), to be laid down in a regional business plan which is used to implement the designed concepts (step 5).

The first step in the interactive design process concerns the formulation of the three main goals of the project (agro-biodiversity, closing of nutrient cycles, and new product market combinations). This step was executed in the pre-project phase with representatives of the initiators and financiers. To include other relevant issues and a broader set of experiences in the project, various stakeholders and the project participants were interviewed. Furthermore the first months of the project were used to explore the more immediate needs of the participating farmers and to fill in their agenda for the learning networks (forecasting route).

The second step concerns the development of a shared vision of what regional agriculture should entail to explicitly address the defined goals. For this purpose visionary multi-stakeholder meetings are organized with participating farmers and other stakeholders (e.g. governing bodies, nature conservation parties, water bodies, ngo's).

Subsequently, in the third step participants are asked to identify obstacles, requirements, and chances that hamper or facilitate the achievement of the formulated visions and goals. This could take place within the network groups but also within additional plenary meetings. All data will be gathered into a 'Brief of Requirements' (Bos et al., 2009) for successful regional agriculture.

Then, participating farmers and other stakeholders are invited to take part in interactive design meetings. In these meetings, based on the requirements and chances identified and inspired by the visions formulated, new concepts for regional agriculture will be developed.

In the fourth step, the concepts developed are translated into a plan of action, consisting of individual actions and steps to be implemented in agricultural and regional practice. In the last phase of the project the plan of action will be executed, step 5.

It is important that the whole process in the project is interactive and multi-stakeholder in nature so that as much relevant knowledge and experience as possible are integrated into the end result. Only then, the chance on successful implementation and embedding is optimal. Hence, in this project multi-stakeholder meetings form an important platform for the design of new concepts for regional agriculture. The overall project is monitored via an interactive monitoring and evaluation approach that mainly focuses on facilitating internal and external learning processes.

Farmer involvement – Experiences

We experienced that many of the farmers participating in Echt Overijssel! struggle with keeping their enterprises economically viable. For example, encouraged by the high milk prices in 2007, several of the participating dairy farmers have started building and growth activities. However, due to the low milk prices in 2008 and 2009, these farmers experienced an income squeeze. They stated that they only are prepared to put time and efforts in collaborative processes when they feel these processes will contribute to generating extra income on the short term.

In spite of the created network environment – carefully guided groups focussing on topics close to farmers' experiences in daily practice – it appears difficult for farmers to articulate the questions they want to address. Only after a few months and several meetings each network was able to formulate common goals (see box 1) and even then, these goals were strongly inspired by the input of the network coaches.

The three different learning networks follow their own dynamics. Concerning the first two steps of network development (vision development and definition of chances and challenges), the three networks have defined their own project goals.

In the Animal Feed network, goals are:
- Efficient production on own areal (grass/clover, herbal mixes, crop rotation)
- Enhancement of the production of animal feed in own region
- Use of biomass for energy production.

In the Cropping network, defined goals included:
- Identification of options for profitable wheat production combined with nature values
- Mutual understanding between nature conservation organizations and farmers around choices for wheat production with nature values
- Optimizing the crop rotation including wheat from participating enterprises.

In the Market network, goals defined included:
- More concrete and recognizable products and services with surplus value from the regions.
- Recognizable own identity for products and services from the region.
- Development and implementation of a common market approach

Box 1. Goals of three networks in Echt Overijssel! as defined by the participants.

Some of these goals explicitly promise to provide building blocks for a concept of regional agriculture. In the Animal Feed network, for example, an explicit focus is 'contributing to the closing of nutrient cycles by enhancing the regional production of animal feed'. In the Cropping network participants strive for the production of wheat with preservation of biodiversity. Overall however, possibly caused by a rather influential role of the network coaches, participants hesitated to commit themselves to the defined goals and were not able to translate these goals into concrete actions effectively.

One aspect that held back farmers' active involvement is the fact that there was limited social cohesion between the participants. This was intensified by the fact that there is a strong diversity between the different participants. While some farmers are ecologically focussed, others focus on economic viability. At the same time, some participants have large agricultural enterprises while others work part time in small enterprises. The part-timers often were called hobby-farmers and not taken seriously by members of the first group.

Two of the networks chose to meet on the farms or business locations of the participants. In these networks each meeting ends with an excursion on site, thus improving the social cohesion and understanding of each others' background. In the third network, this form of socializing was not facilitated, and meetings take the shape of regular business meetings. Since this network also has the greatest variety of participants, finding common ground is most difficult in this group.

At the project level, important challenges still are the achievement of both a feeling of coherence and togetherness between the three networks and an overall commitment among participants to the long term goals of the project. Frequently participants said they do not want to talk but to do something 'real'.

Another issue that hampers farmers' involvement in the project is that nature conservation parties and governments are often seen as unreliable entities due to continuously changing policies. For example, the current interest of these parties in biodiversity was disputed. Some farmers were wondering whether subsidies would change into the direction of agricultural production again in the near future because of the growing concern to feed the world. They themselves do not consider biodiversity as an important factor for agricultural production or even human well-being.

The first plenary meeting in September 2009 introduced biodiversity and how to utilize biodiversity in agricultural practice. The aim was to create consciousness on the importance of biodiversity and on challenges and opportunities involved, as a first necessary step in vision development. Since then, other plenary meetings were organized to zoom in on relevant overarching topics (e.g. product and market development; aspects of shared land use). However, since participants were busy with

building activities and other individual occupations, and did not sufficiently feel the value of collaboration and deliberation, many cancelled these plenary meetings. At the same time, the few participants present at plenary meetings were not very actively participating in discussions.

Discussion

In spite of the well thought-through plan and the good intentions of all stakeholders involved, in practice many things turned out different. We think a main cause is that we assumed a relatively common mind set towards the project goals, and a willingness and ability to cooperate and learn in joint processes. However, it appeared that individual interests and needs are so strong that many farmers hesitate to put efforts in achieving common goals. In addition, cultures are so resilient that people easily fall back into old routines. Many of the participating farmers are not used to talk and discuss, in particular not when it concerns 'higher' goals and ambitions. They want to act. They tend to wait until others tell them what to do so that they can decide whether to follow this advice or not. In this atmosphere, researchers and advisers who had taken up the role of facilitators in Echt Overijssel! seem to fall back into standard patterns of disseminating knowledge or advice, even though they were selected on their ability to manage multi-stakeholder processes. Affected by the reluctant attitude of many farmers, the facilitators tend to manage people and activities instead of facilitating the process of knowledge co-creation among participants. The influence of facilitators, guided by the project ambitions, is apparent in the defined goals and constructed work plans of the networks. This may have contributed to the alienation of participants from these goals and plans and slowed down the development of ownership among participants.

A more practical issue that hampers the project is the large variety of participating entrepreneurs, which weakened the mutual trust and strongly delayed the process. In addition, the differences in time horizon between farmers' needs and interests and the objectives of the project is strengthened by the contemporary income crisis in agriculture makes the farmers more focused on profitability.

However we still believe that both routes of forecasting and backcasting can reinforce and accelerate each other when executed together. Also, the large variety of participants may in the end result in more robust knowledge, i.e. knowledge that can be used by a greater range of players in regional agriculture, then would have been developed when the participants were more uniform in background. We cannot elaborate yet on whether these two aspects will prove to be true in our case, since the project has only started in June 2009.

Because of the required process in the project, it is important that the duration of the project is substantial (in our case at least 5 years) and that demands for project deliverables are kept relatively open. This requires trust and patience from the financiers and good communication between project management and financiers.

Reflecting on our experiences, we suggest that the following actions will support active farmer involvement in regional design and development processes:
- Network coaches and process facilitators need to be able to keep the processes in the group open and to let participants themselves define their goals and routes. This requires a large toolkit with inspiring and activating process methods and (some) freedom in time span and topics addressed. All involved, including the authorities commissioning the project, need to understand this process takes time, particularly when the variety of participants is large.
- In addition, adequate networking and participative design of regional agricultural systems requires specific social skills from all participants. These social skills may be crucial for building long term cooperation as well, which we see as an important aspect of further regional development. Addressing social skills for successful networking as a topic in the design process thus may support the process of designing regional agricultural systems as well as the implementation of the designed systems.
- A small group of interested and visionary farmers / entrepreneurs could be involved actively early in the process, not only to set the first contours of goals, chances and possibilities but also

to define necessary activities. In our experience it is not sufficient to involve farmer representatives for this purpose.

- This small group could also be used as a tool to inspire other participants and facilitate the creation of commitment with and ownership of overarching visions and goals.

References

Bos, A.P., Groot Koerkamp, P.W.G., Goselink, J.M.J. and S. Bokma (2009) Reflexive Interactive design and its application in a project on sustainable dairy husbandry systems. *Outlook on Agriculture* 38(2): 137-145.

Regeer, B.J. and J.F.G. Bunders (2003) The epistemology of transdisciplinary research: from knowledge integration to communities of practice *Interdisciplinary Environmental Review* 5(2): 98-118.

Quist, J. and P. Vergragt (2006) Past and future of backcasting: The shift to stakeholder participation and a proposal for a methodological framework. *Futures* 38: 1027-1045.

Vogelezang, J.V.M. and F.G. Wijnands (2009) Methodisch werken aan systeeminnovaties. *Syscope* 22: 3-9.

Wenger, E. (1998) *Communities of Practice. Learning, meaning and identity.* Cambridge: Cambridge University Press.

Wielinga, E. and M. Vrolijk (2009) Language and Tools for Networkers. *The Journal of Agricultural Education and Extension* 15(2): 205 — 217.