

7.2 ENVIRONMENTAL CO-OPERATIVES RECONNECT FARMING, ECOLOGY AND SOCIETY

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Regional diversity, diversified farming styles and endogenous development are hot issues in the current political debate on European agriculture. This article presents a historical overview of development experiences and elaborates on the emergence of environmental co-operatives in Dutch farming. They are unique 'field laboratories' for innovations toward sustainable rural development. The achievements in terms of environmental gains and social cohesion are coupled with cost reduction for the farmers and the state.

During the four last decades a seemingly unstoppable process has swept through the European countryside. Farming and nature areas have been thoroughly reshuffled and modernisation has managed to penetrate even the remotest corners of the continent. Local specificity appears to have lost its relevance, whilst entrepreneurship, the European market, and adherence to latest technologies emerge as guiding principles. The European Common Agricultural Policy is strongly supporting the use of new genetic technologies for enhancing productivity. But, the negative aspects related to this modernisation process can no longer be obscured.

Diversity in European agriculture. Although empirical evidence indicates that the effect of modernisation in Europe has been one of globalisation, its real scope and impact has been dependent upon responses developed at the grass roots level. As much as the modernisation model, characterised by intensification, larger scale, specialisation and integration into agribusiness chains, was internalised by some regions and some farmers, it was also deconstructed and reshaped by others. Some groups have consciously taken distance from what appears to be the dominant blueprint. In fact, the impressive heterogeneity of current European agriculture shows that agricultural development is a many-sided and highly variable interaction between the local and the global, and that diversity continues to be one of the main features of European agriculture. Diversity is also becoming a keyword in the debates taking place on common agricultural policy. Any European policy on rural development must, therefore, be based on the recognition of this diversity, which can be viewed either as a problematic remnant of the past, or as a major opportunity for the future.

The diversity of Europe's agriculture can be attributed to differences in factors such as climate, soil, distance from centres of consumption, as well as historically created land-use patterns. But above all, agriculture is a social construct: the way agriculture is organised depends heavily on the individuals and organisations involved in it. They decide on the strategies used and the ways practices are linked to markets and technological developments. And it is these decisions within a complex process that makes agricultural practice what it is: a highly diversified whole.

The effects of modernisation. The renewed interest in endogenous development can be explained, theoretically, by the effects of agricultural modernisation. Since the mid-1950s modernisation of European agriculture is increasingly a process originating from, and driven by, institutions outside of the agricultural sector. This view has been consolidated by a concept of development that implied, essentially, a rupture with the existing discourse on the practices in the countryside. Agriculture was considered to be a stagnant sector, and 'getting agriculture moving' and 'transforming traditional agriculture' were amongst the main slogans in the 1960s. Those farmers able and willing to participate in the modernisation process were classified as 'modern' and innovative. Their activities were oriented towards urban dynamics, and fitted in well with mainstream economics, in which agricultural development was considered a process of adapting farming practices to global markets and modern technology.

Modernisation was, and still is, shaped by external interventions aimed at introducing new organisational models, new linkages between farming, markets and market-agencies, new technologies and knowledge, and new forms of socialisation and training. This has resulted in a redefinition of the role and identity of farmers and their families. Meanwhile, the implementation of this integrated policy on agriculture has reinforced the break away from existing practices, relationships and role definitions.

Secondly, certain conditions, times and regions proved more favourable for modernisation projects than others. Thus, modernisation increased inequalities, and has resulted not only in growth, but also in marginalised rural areas. Consequently, the simple repetition of the model based on so-called 'growth poles' and 'centre economies' became, within the less favoured areas, an increasingly less convincing policy option.

Thirdly, it must be stressed that the practice of modernisation, based on introducing exogenous elements into the farming sector, has caused dependency to be internalised into the structure of development. This emphasis on exogenous development has produced a bias in our approach to nature, and to mechanisms of agricultural development. Although considerable knowledge exists on how to design and implement projects for exogenous development, there is a sad lack of knowledge in how to conceptualise and analyse endogenous development patterns, their impact and potential. This is expressed by the widely shared belief that endogenous development has little to offer when it comes to resolving current problems. This ignorance, which has its historical roots, manifests itself today as one of the main problems in rural and agrarian development throughout the world.

Internal and external elements. Diversity in agriculture is a multidimensional phenomenon. One of the criteria we can use to analyse this diversity is the level of autonomy in relation to markets and technology supply. Of course development patterns can neither be defined as being exclusively based on local resources, nor as only on external elements; they contain a specific balance between 'internal' and 'external' elements. The balance in endogenous development is one in which the local resources figure both as the starting point for farming and as the yardstick for measuring the utility of external elements. External elements will only be internalised if they can strengthen the vitality of local farming styles. This entails a process of careful 'deconstruction' and 'recomposition' of the

external technology, to guarantee the maximum fit with local conditions, perspectives and interests.

It could be argued that more often than not endogenous development is blocked, not only by global factors, but also by factors in the locality itself. As such, it could be stated that there is no general scheme for endogenous development. It is only the careful and detailed exploration of farming styles, and other local elements embedded in the particular frameworks of interaction with external factors, that can render insights into the prospects for endogenous development.

Re-embedding Dutch farming in its locality

In Dutch farming, the shift to exogenous development due to modernisation is much greater than in many other parts of Europe. Over the past decades, farming has been practically disconnected from its local social and natural environment, leading to environmental pollution, animal welfare problems, as well as social disintegration. Currently, Dutch rural society is deeply divided about the best way forward for the rural areas, with distrust between farmers, the state and other actors. Many 'traditional' farming systems, which were foreseen to disappear under the modernisation paradigm, are now moving to the forefront of the policy agenda and have been revalued for their positive impact on natural resources, or as providers of quality regional food. Pluri-activity, once conceived as an indication of under-developed agriculture, is now increasingly recognised as a phenomenon with important potentials for sustainable livelihood strategies [Kinsella et al., 2000]. A range of new rural development activities has emerged, including organic farming, tourism and marketing local produce, which are being adopted by farm households as a



On-farm cheesemaking in the Netherlands. Forty percent of Dutch farming families get additional income from 'rural development' activities, such as nature management, agritourism and on-farm processing of regional food products.

means of strengthening their business. Many of these new and revitalised 'old' practices correspond to a fundamentally distinct development rationale in contrast to the modernisation approach. They form the contours of a new rural development paradigm, which goes beyond modernisation [van der Ploeg & Renting, 2000; van der Ploeg, 2000].

Environmental co-operatives. The emergence of environmental co-operatives in Dutch farming can be understood against this background. These co-operatives are innovative associations of farmers at local or regional level, which promote activities related to sustainable agriculture and rural development in their locality. In most cases, the activities involve nature and landscape management, as well as the reduction of environmental pollution on the members' farms. They also include water management, tourism, production of quality regional foods and organic farming. These co-operatives emerged in the early 1990s in response to the crisis of high-tech agriculture, concerns over the deteriorating public image of farming and, most of all, the increasing number of environmental regulations of the government.

The number of farms involved in environmental co-operatives is difficult to assess, as there is no official registration. A study undertaken in 1999 [Polman & Slangen, 1999], showed that 81 co-operatives had around 6,600 member farms, with about 134,000 hectares of land. This implies 6% of all Dutch farms and 7% of the total agricultural land. The co-operatives generally attract relatively large, full-time farms. The average size of a co-operative is about 70 members with 1,600 ha of land. Regions with an environmental co-operative count nearly 50% of the farmers in its membership.

The factors that triggered the formation of the environmental co-operatives were often of a highly localised nature. A clear example is the Vel&Vanla co-operative, a combination of the 'Vereniging Eastermar's Lansdouwe' (VEL) and 'Vereniging Agrarisch Natuur en Landschapsbeheer Achtkarspelen' (VANLA), in the province Fryslân in the northern part of the Netherlands. This co-operative represents an interesting field laboratory for innovation towards sustainable rural development. In the case of Vel&Vanla, it was the state regulations on soil pollution, which threatened to block any further prospects for farm development in the area. In other situations it was the obligation to apply manure through injection techniques, which resulted in local discontent.

Crucial elements for innovation. The following elements have been observed as crucial in the process of innovation towards sustainable development:

New institutional relations between the state and agriculture. The environmental co-operatives question the overload of state regulations that apply at farm level in the Netherlands. They generally accept and endorse policy objectives set by state agencies, but claim substantial reforms, and more flexibility in implementation.

Rebuilding networks of trust at the local level. At local level, the environmental co-operatives have actively re-created networks and coalitions between the farming population and other rural interest groups, such as nature conservation agencies and entrepreneurial organisations engaged in tourism and leisure. They advocate integrated development of land use and economic activities in their region. By going beyond distrust and conflicts, doors have been opened for a range of new coalitions at the local level.

The re-embedding of farming. At farm level, a wide range of possibilities exists to realign farming with ecology and wider society, although the exact lines along which to proceed may vary substantially. The environmental co-operatives are an attempt to restore the wholeness, context and specificity of farming, by reinforcing the craftsmanship of farmers and their capacity to produce tailor-made innovations. Examples are nature management plans, nutrient balances, ecological norms, codes of conduct, and farm certification schemes. Common to all these innovations is that they shift the control of farming and rural development back to the locality-specific coordination mechanisms. This renewed embedding, however, requires adequate institutional back-up.

Social, economic and environmental impact. The achievements of the more developed environmental co-operatives give an indication of their potential. The members of the Vel&Vanla co-operative have reduced the level of environmental pollution of their farming operations through reduced use of external inputs and a more efficient use of internal farm resources. Nitrogen surpluses on member farms have reduced from 346 kg N/ha in 1995-96, to 269 kg N/ha in 1998-1999. The regional average during the same period was 371 and 306 kg N/ha respectively. In fact, the N-loss level in the season of 1999-2000 was already in line with the national policy goals set for 2003.

The farmers of the Vel&Vanla co-operative also implement a range of activities that contribute to nature management. At present, 270 ha of land belonging to member farms is under special meadow birds and botanic protection, 240 kilometres of hedgerows and 220 ponds are actively managed, with a positive impact on local natural resources. In general terms, the co-operatives have had their impact on socio-economic performance of the member farms, as local leaders point at the 'renewed spirit' among farmers, leading to positive effects on the local economy. More farmers would have given up farming if not for the co-operatives.



A Vel&Vanla farmer (left) explains the biodiversity value of hedgerows to tourists who camp on his farm. Agritourism adds to the family income and is one of the 'ways out' of the limitations of agricultural modernisation.

The co-operatives also facilitate members to take up new activities to diversify farm revenues. This is most obvious with respect to payments for nature and landscape management. On the Vel&Vanla member farms, payments for conservation activities contribute on average to € 5,500 of revenues, though the disparities between farmers are large. In the case of organic farms, the farmers receive € 18,000 extra, while agri-tourism activities add on an annual

average of € 8,000 [Roep, 2000]. The activities with the local tourist agency have substantially improved the reputation of the area as a tourist destination, creating new opportunities for the farms in the area, directly and indirectly.

The practices of environmental co-operatives have also resulted in important cost reductions. A part of these are reductions in transaction costs [Saccomandi, 1998], as farmers spend less time on bureaucratic regulations, sometimes avoid unnecessary investments, and manage their farms more efficiently. These benefits at farm level are frequently combined with similar cost reductions for state agencies and third parties. Additionally, there is a sharp reduction in state control costs. Monitoring is now conducted to a large extent by the co-operatives themselves, while external state control is reduced to one visit in several years. Other important cost reductions result from reduced environmental pollution. Vel&Vanla has recognised the virtues of low-external-input and sustainable agriculture, or LEISA, [van der Ploeg, 2000] when reducing nutrient losses. The co-operative has started study groups and on-farm research on these subjects. This would have been impossible without this organisational structure, as exemptions from standard state regulations required contacts with research institutes. As a result of these innovations, the associated cost reductions amount to about € 315 per ha, which implies an annual benefit of € 4,000 for an average farm of 30 ha.

Concluding remarks

While public opinion and the Dutch parliament support further development of environmental co-operatives, doubts about this trend have been voiced at local government level, especially within the Ministry of Agriculture, Nature Management and Fisheries. Being used to standard policy regulations that are applied uniformly, the legal experts of this ministry have started to question whether further development of localised regulatory frameworks could be adequately administered, and the results sufficiently monitored. Although the co-operatives were given room for a policy experiment in 1995, and despite positive results, the state bureaucracy has managed to block off any option for the environmental co-operatives to by-pass the standard regulations.

While the co-operatives will receive no official policy status, and while further exemptions from standard regulations are out of the question, they continue their activities at local level. In many cases support of national state agencies is not needed for this. The future of environmental co-operatives depends, however, on their capacity to mobilise other actors, including government agencies, and to establish alliances at local and regional levels. The rise of these co-operatives is in line with general trends in other European countries. With international policy favouring more decentralised, participatory and integrated approaches, these co-operatives can probably show the way to a more diverse European agriculture.



Local market in Valle Alto, Bolivia. A key strategy for endogenous development to reach its potential is regional economic management, in which producers, consumers and traders are ensuring the retention of most benefits within the region.

