

A Dutch strategy for urbanisation within valuable agricultural landscapes

Since the Second World War (1940-1945) the Dutch have tried to build compact cities, partly to have as much agricultural land as possible. Strict restrictions were placed on housing developments in rural areas. By implementing land readjustment plans the efficiency of agricultural land was maximized at the same time. Today, around 70% of Dutch land is still used for agriculture, forestry or nature. During the 1990's the Dutch government noticed a growing demand for housing in rural areas, a trend which continues today. However, it was also evident that the spatial quality of these rural areas was poor due to land readjustment and urban development (figure 1).

The Dutch government, inspired to a degree by the political and societal movements of Neoliberalism and New Public Management - which still influence planning policies today – realised that it was in a good position to upgrade the spatial quality of the countryside without having to pay for it. From 1993 onwards a policy was developed which allowed landowners in rural areas to build a large house (red) if they simultaneously developed 5 or 10 hectares of their land for nature and recreational purposes (green). This policy became known as 'red for green' in the mid 1990's and can be seen as a steering concept of the Dutch government at that time. This 'red for green' policy and its offshoots, however, have not proven to be a solution for the - present - problems in the countryside when it comes to matters such as the demand for affordable housing, ecology, liveability, landscape quality and recreation. But the basic idea of housing paying for nature and landscape development has still continued to evolve regardless of legislative constraints. Now, more than 15 years since the first policy, the Dutch are on the brink of a breakthrough in small-scale urbanisation projects which have substantial benefits for the countryside while offering solutions for more efficient agriculture at the same time. As we well know, the demand for agricultural products is increasing all over the world.



Figure 1. Development of the agricultural landscape at one of the case study projects between 1907 (right) and 2006 (left). Paths, hedges and trees have disappeared and urban fabric (bottom right) appeared. Source: SAB Strategie en Ontwerp 2007.

A scientific analysis of the development of this 'red for green' steering concept and a detailed case study on new 'red for green' strategies demonstrate how this new strategy could be successful. This paper presents the highlights of this study¹. It will focus on: the strategy, the investigation method, the 'red for green' steering concept, the case study, the effectiveness of the new strategy, the sustainability of the new strategy and the conclusion of the study.

1 The strategy

At three locations in the east of the Netherlands several local governments are investigating, in consultation with planners and designers, new effective ways of implementing 'red for green' projects within valuable agricultural landscapes. In these areas many old farmers who have relatively small farms will soon retire. The common practice nowadays is that rich people buy these old farms and then build a huge villa with a big fence around it in its place. If this practice persists, only a select public will be able to live in the countryside, cultural heritage will disappear and the landscape will be visually and functionally blocked for visitors. The goal of the new strategies is to improve the landscape while creating a place to live for a broad public. The strategies plan a number of new dwellings on the site of the old farms which will lose, or have lost, their agricultural function. Old barns will be demolished – of course valuable historical buildings will be reused – and new houses will be built on around 50% to maximum 70% of the original footprint depending on the local situation (figure 2).

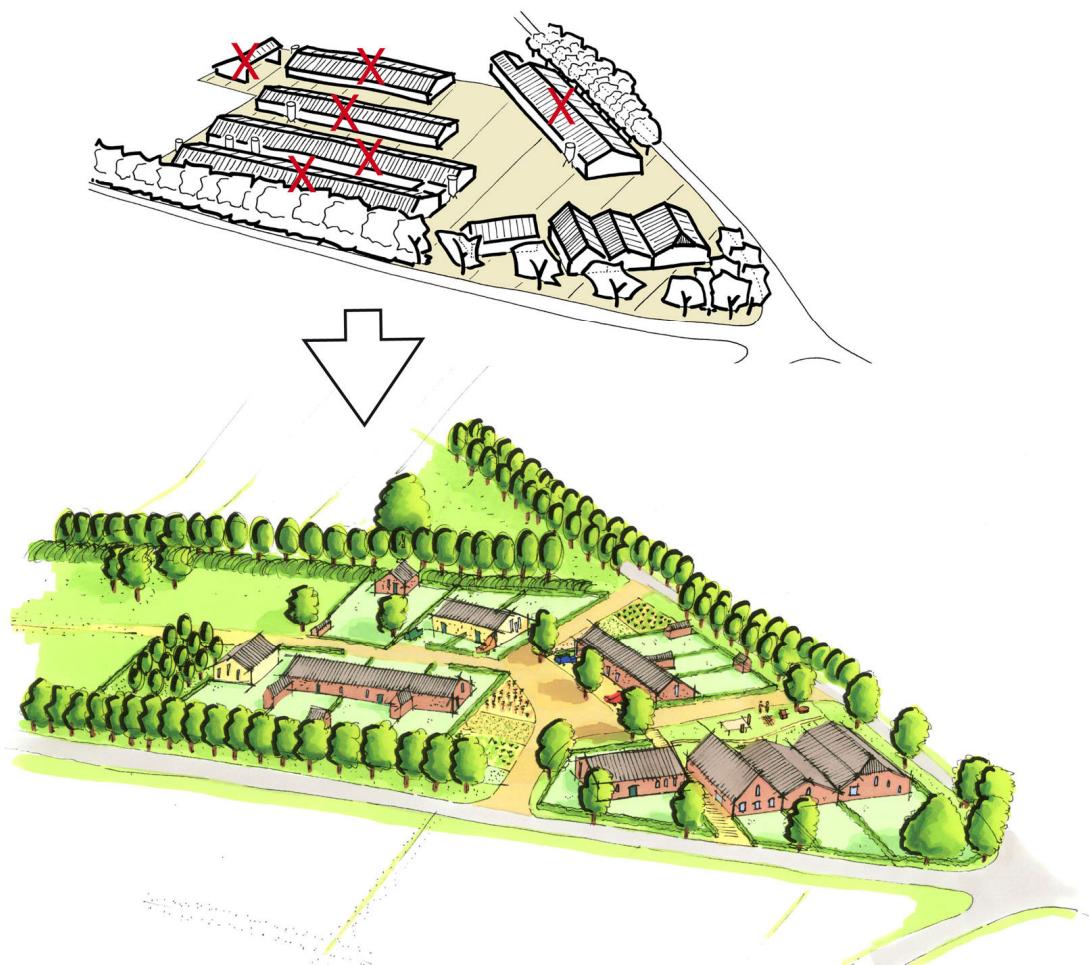


Figure 2. Transformation of a farm into a new enclave. In this image a relatively big bio-industry farm is restructured, houses are developed and greenery and paths are restored. Source: SAB Strategie en Ontwerp 2007.

Every new development needs its own unique landscape and urban design. The new dwellings will reflect local building methods and blend into the surrounding landscape. These new 'enclaves' can provide a broad public with a location for popular new living styles. The dwellings in these enclaves can contain several houses or small businesses which could help to support local communities, for instance. By adopting a clever tactic, essential strips of land, which (will) contain recreational and ecological networks, will be acquired and maintained by the new inhabitants of these enclaves (figure 3).

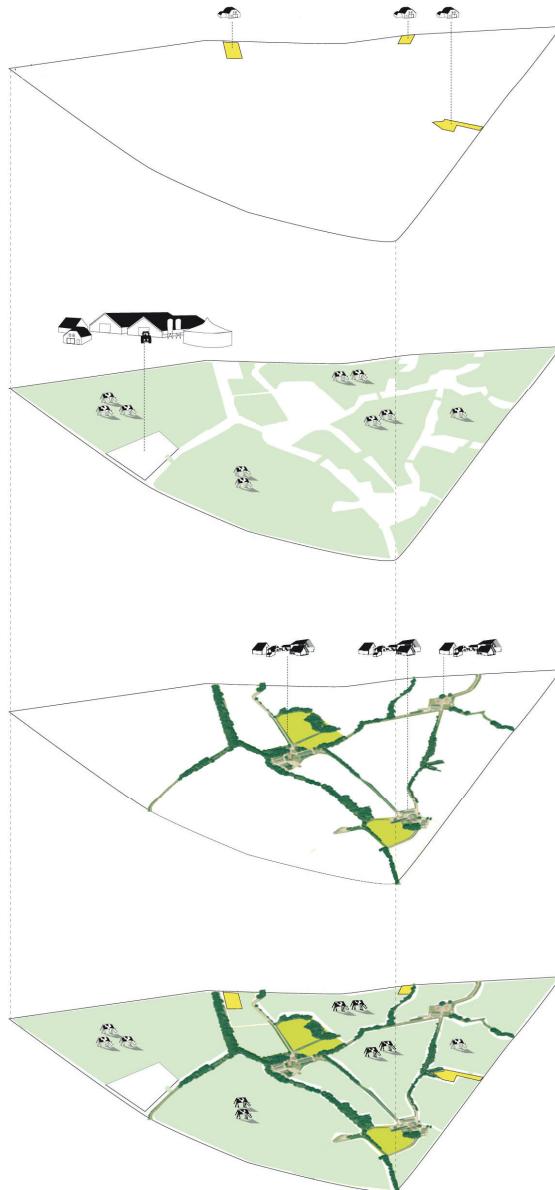


Figure 3. The new enclaves within the agricultural landscape. From top to bottom the components of the landscape: Old farms or new villas owned by non-farmers. A big farm which expanded using the land of old farms which were transformed into the new enclaves. The new enclaves with the new paths and greenery and some remaining land. The complete picture: the new enclaves together form a strong framework which supports the identity and recreational and ecological networks of the landscape. Source: de Groot & van Paridon and InnovatieNetwerk 2006.

Farmers in the vicinity of these new enclaves can purchase the remaining land on the old farms at a reasonable price. This tactic will speed up the process of scale enlargement for the remaining farmers which will give them the benefit of being able to produce more efficiently. If this new and integral strategy of 'red for green' is implemented as a regional policy, a substantial number of houses can be built without causing urban sprawl. At the same time, recreational and ecological networks can be restored on the same scale.

2 Investigation method

The most recent Dutch national planning policy document, the 'Nota Ruimte', includes a specific 'red for green' policy for new housing projects in rural areas. The purpose of this policy is 'to substantially improve the quality of nature, water, the countryside and/or recreational areas'. Besides these aims, the central government is also keen to improve liveability in rural areas. Up till now, however, the policy has not achieved many positive results. But it is possible that it could contribute to solving issues that exist in small-scale agricultural landscapes. This study, that was carried out between January 2007 and March 2008, aimed at contributing to the development of the 'red for green' steering policy in new housing projects in rural areas by making recommendations for effective or more effective ways of steering. Steering is effective when the aims of the policy are achieved. "Red for green is a theme in the field of steering that is nearly always approached in a normative way. Many fellow professionals view red for green as something desirable. Investigations on how it actually works or could work are rarely carried out²." By taking a good look at how things are done or could be done in town and country planning, well-grounded advice could be given on the effectiveness of the policy and how to improve it. Before the results of the case studies are presented, the concept of steering and the development of the 'red for green' steering concept will be outlined briefly. This will form a framework within which the case studies concerned can be analysed.

3 The 'red for green' steering concept

When the government pursues a policy, it does so using certain means in order to achieve the aim of its policy: it steers. Steering is done by adopting a particular steering philosophy, that in turn is supported by a steering concept and by the employment of steering instruments. When the 'red for green' policy was developed, Neoliberalism and New Public Management were two influential political and societal movements that at that time partly determined the steering philosophy of the Dutch government. Neoliberalism 'preaches' distant government, deregulation, the force of the free market etc. New Public Management pursues a more businesslike and result-oriented government, under the motto 'steering not rowing'. These past characteristics are also reflected in the current town and country planning policy of the government. 'Decentralize if possible, centralize if necessary' and 'development planning' are important themes in the national planning policy document of the Dutch government.

A steering concept – in this investigation: 'red for green' in new housing projects in rural areas – is based on the prevailing steering philosophy and a certain policy sector, in this case spatial planning in rural areas. The 'red for green' steering concept is explained by scientists as a policy of 'tit for tat'³. A person can build a house at a location where previously they weren't allowed to, provided a contribution is made to the quality of the rural surroundings. The government implements this steering concept by using communicative, economic and legislative steering instruments. By employing these steering instruments, it tries to influence private individuals i.e. the market, to get them to act in such a way that social objectives are served as well.

4 Case study

Actual practice, empiricism, is analysed in this case using three 'red for green' projects that implement the 'red for green' steering concept in new housing projects in rural areas. The projects are 'Knooperpen', 'Nieuwe Buurtschappen' and 'Nieuwe erven'. These projects each

try in their own way to improve the quality of the landscape by building houses and developing greenery in the surroundings. Greenery and other investments in the landscape are always developed on land that is owned by those initiating the housing project. The cases vary in content and method (see table 1):

- 'Knooperven'. A 'red for green' project on old farms in the municipality Tubbergen. The project is in the hands of the municipal authority of Tubbergen, the provincial authority of Overijssel and *InnovatieNetwerk*, an advisory body that aims at modernizing the agricultural sector. At the moment, offers have been made on two properties that are intended to serve as pilot projects. They are also looking at the possibility of rolling out the 'Knooperven' project on a larger scale after the pilots have been implemented.
- 'Nieuwe Buurtschappen'. A 'red for green' case study for the development of a new living concept on old farms in the municipality of Rheden. It was initiated by *SAB Strategie & Ontwerp, Lavooij over Vorm*, the municipal authority of Rheden, the city region Arnhem/Nijmegen, *Symbion planontwikkeling* and *Bouwfonds* property development. The study phase has been completed and the initiators now want to develop a pilot together with local governments.
- 'Nieuwe erven'. A 'red for green' scheme as part of the 'landscape improvement zone' of the province Gelderland and the city region Arnhem/ Nijmegen. A framework is set within which new properties can be developed with houses and greenery within the old occupation structure of the landscape. This framework is included in the zoning plan for a new park to be situated between Arnhem and Nijmegen. The zoning plan is expected to be completed by the end of 2008, after which time the new properties can be built.

Content	Knooperven	Nieuwe Buurtschappen	Nieuwe erven
Objective and end result of the project	Achieve at least one good example. 'Roll out' the concept on a larger scale.	The project should materialize in pilots. A living concept suitable for old farms.	A framework for building new properties as part of a zoning plan.
Policy boundaries	Restrictions by agricultural, landscape and environmental legislation.	Strict restrictions related to landscape, environment and housing.	Restrictions still to be laid down.
Spatial situation	In the countryside, close to or in the proximity of villages and rural centres.	In the countryside close to towns, villages and rural centres.	In the countryside with scattered housing very close to towns.
Location of 'red and green' development	On existing properties and close proximity.	On existing properties and close proximity.	Condensing an occupation structure on new properties and close proximity.
Process	Knooperven	Nieuwe Buurtschappen	Nieuwe erven
Initiator	Government.	Market representatives and government.	Government.
Reaction to existing policy	Link up and develop new ideas.	Link up interpret and 'implement'.	Implement and develop policy.
Composition and working method of team	Local governments, who take on advisors when needed and maintain contacts with interested parties.	A project team composed of various advisors that maintain contact with local governments.	Team of civil servants from seven local governments supplemented by external advisors.

Table 1. Characterization and differences in method and process between the three case studies.

Using a comparative hierachic case study and various research techniques, a broad insight was gained on the basis of the above differences in the steering instruments that are employed during the implementation of the 'red for green' steering concept. Table 2 provides an overview of the various communicative, economic and legislative steering instruments that were apparent in the 'red for green' policy of the government and in the application of the 'red for green' steering concept in new housing projects in rural areas by local governments in the three case studies. The column 'movement' indicates whether a particular steering instrument could be employed from the viewpoints of the movements Neoliberalism and/or New Public Management. By analyzing this information, it can be assessed whether the 'red for green' steering concept actually matches the steering philosophy based on Neoliberalism and New Public Management. We can also take a look at which steering instruments are generally employed in practice.

Communicative steering instruments	Movement	Policy	Empiricism
Advice, transfer of knowledge and education	Neo, NPM	X	Kn, NB, NE
Providing information	Neo, NPM	X	Kn, NB, NE
Propagating vision (policy concepts, main objectives and determining restrictions)	Neo, NPM	X	Kn, NB, NE
Setting up own organisation, decentralisation and self-sufficiency	Neo, NPM	X	Kn, NB, NE
Entering into agreements		(X)	
Economic steering instruments	Movement	Policy	Empiricism
Exchange or action; 'tit for tat'	NPM	X	Kn, NB, NE
Programme funding	Neo, NPM	X	Kn, NB, NE
Tax incentives	Neo		
Fiscal instruments	Neo, NPM	X	Kn
Provision of loans	Neo, NPM		(NB)
Risk-bearing participations (active land policy)		X	Kn
Subsidies		X	
Legislative steering instruments	Movement	Policy	Empiricism
Contracts	Neo, NPM	X	Kn, NB, NE
Obligations (search for long-term obligation to provide greenery)	Neo, NPM	X	Kn, NB, NE
Establishing a legal entity	Neo, NPM	X	Kn, NB
Deregulation	NPM	X	Kn, NB
Standards and permit system		X	
Enforcement (withdrawal/granting permit)			NE

Neo = Neoliberalism, NPM = New Public Management, Kn = Knooperven, NB = Nieuwe Buurtschappen and NE = Nieuwe Erven.

Table 2. Steering instruments likely from viewpoint of movement, apparent in policy of applied in empiricism.

The table above represents a simple overview of the results from the study. The 'red for green' steering concept in new housing projects in rural areas would appear to be linked to the movements and the steering philosophy from which it stems. Many steering instruments

that are likely to be employed from the viewpoint of Neoliberalism and New Public Management can be found in policy and empiricism. The employment of the communicative, economic and legislative steering instruments will be discussed in more detail below:

- Communicative steering instruments: In policies and in empiricism it appears that the government notifies, stimulates and supports the market (civilians, businesses, land owners and developers) intensively in order to implement 'red for green' policies in new housing projects in rural areas. In the study and research phase of the concepts, local governments even take the lead in developing new applications for 'red for green' projects.
- Economic steering instruments: Only two steering instruments are represented over the whole breadth. This is to be expected considering that the government started the 'red for green' policy to let the market contribute to improving the quality of rural areas. On the other hand, taxes to pay for greenery when one builds a house are not possible legally in the Netherlands. The local governments do, however, support the development of the three projects with man hours or finance (funding programmes). Later on these projects should be able to finance themselves.
- Legislative instruments: From the movements Neoliberalism (free market system) and New Public Management (not the regulations, but the result counts) a policy aimed at development was expected. This is reflected in the application of private law (contracts and the establishment of legal entities) and deregulation. However, there is also the necessary consideration of obligations and to a lesser extent reinforcement as well. Consideration of obligations is the downside of the economic 'tit for tat' instrument. In all cases, an attempt was made to work towards development. Establishing tolerable legislation on agreements is part of that development. The government needs to make sure that the investments in the landscape are actually made.

5 Effectiveness of the new strategy for new housing projects in rural areas

From the above tables, it appears that a set of steering instruments recurs from the movements and in policy and empiricism. The study also demonstrates that the cases using this set of instruments are capable of achieving success, to meet the objectives of the 'red for green' policy – a substantial improvement in the quality of nature, water, landscape and/or recreation. The content and methodology of this 'success formula' is feasible at the location of the investigation, but it has not yet led to physical results there or at other locations. All cases still have to be put into practice. In order to actually assess the success of the projects, it would be better to look at the results in 10 to 20 years time, after the projects have been completed. After such a long period new greenery will have taken shape and it will be possible to determine whether local communities have benefited.

The case study also prompts us to query the extent of the effectiveness on a larger scale of further developments and applications of this new strategy regarding new housing projects in rural areas:

- Remember that striving for development is not detached from good regulations to prevent too much building being carried out on the landscape, for example.
- The way in which the steering instruments are employed, depends on the local administrative, official, spatial and policy situation.
- Implementing a 'red for green' policy is always about made-to-measure solutions that work for specific landscapes.
- In many areas, there are one or more types of policy in operation that are geared towards improvements in the quality of the countryside. 'Red for green' in new housing projects in rural areas is only one of the possibilities to improve the landscape and liveability and it often complements existing policy.
- Demand for rural housing is extremely varied and often comes from within the same region. The houses built (new or in old farm buildings) can therefore vary per location.

- Securing the quality objectives of a 'red for green' project is an ongoing requirement . To achieve this, the strategies should not only include good designs and frameworks. They also need to include strict rules that determine, for example, that a good design is a prerequisite for being allowed to build the houses.

6 Sustainability of the new strategy

The effects of the 'red for green' steering concept for new housing projects in rural areas form a sustainable strategy in various ways for urbanization in small-scale agricultural landscapes. At present, the sustainability of the strategy stems from the following points:

- It prevents sprawl. By building on existing farm sites or within existing occupation structures villages next to the agricultural landscapes no longer need to expand, spoiling valuable landscapes and creating sprawl.
- All three cases take the local landscape as the basis for the project and try to improve the quality of the landscape by planting greenery, laying paths and reusing valuable buildings. In this way, cultural heritage is protected, ecological links are made and the residents can make better use of the landscape for sport and recreation.
- The cases offer a social context in which people can live on an existing property or a new property. The new houses are affordable for those with lower incomes so that, for example, both the young and the elderly are able to buy a home close to their social network.
- The enclaves also offer locations for small businesses. The new residents, small businesses and the existing local community can support each other so that the level of services will be improved.
- If this strategy is implemented on a larger scale, reasonably priced agricultural land will be freed up more quickly for farmers who wish to expand. This will benefit the amount of local produce. At the same time, farms that have become out-dated will be restructured sooner.
- The process of this strategy is sustainable because it takes account of existing policy restrictions and is based on local land ownership situations and local living requirements. By doing so, realistic plans are made for houses for which there is a demand.

If the effects of the new 'red for green' strategy in new housing projects in rural areas is supplemented in practice with principles of permaculture, autarky and organic agriculture, the transformation of the countryside can be designed in a totally sustainable way. These principles are based on keeping the water, food and energy cycles as local as possible. Examples of this are the generation of energy using the sun, wind or biomass, or the production and consumption of food locally so that the need for transport is limited, or the treatment of waste water locally. This can all be done using building materials that are fully recyclable in the biological or technological sense and that give no health risks during use.

7 Conclusion

The investigation demonstrates that the new strategy for implementing the 'red for green' steering concept in new housing projects in rural areas can be successful. To achieve this success, the concept must be implemented on a large scale in small-scale agricultural landscapes. The local governments involved must be aware that implementing the steering concept will not always be a straightforward process or that it always contains the solution to the problems. Each area has its own point of departure and different problems. A good strategy has now been developed for three areas for which a specific rural and urban development design still requires to be made at the level of actual properties to be developed. This calls not only for a clear framework within which quality can be guaranteed, but also flexibility in order to offer solutions for specific situations. The following recommendations on content and process could be helpful when applying this new strategy in the future:

- Use the characteristics of the local landscape in a regional design. Do new houses fit in the area at all?
- Always base the design of the enclaves on the principles of permaculture and autarky in order to maximize sustainability.
- Examine the agricultural (economic) structure of the region to determine which strategy is best suited to improve it.
- Develop housing in order to serve local living demands.
- Take existing policy frameworks in the provinces, regions and municipalities into account. Work within these and offer additional possibilities.
- Different official and administrative situations call for different approaches. Make sure the concept has broad support.
- Market representatives and government bodies have to be prepared to co-operate closely and to invest in order to successfully complete a 'red for green' project.
- Ensure clear regulations for expanding agricultural businesses. Farm buildings, too, have to fit into the landscape.

If the necessary effort is made, the 'red for green' strategy in new housing projects in rural areas can provide benefits and sustainable progress in the agricultural landscape and society without creating urban sprawl.

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¹ Research conducted by M.J.C. Meijer for his graduation from Radboud University Nijmegen, the Netherlands, as a spatial planner. Dissertation title: Red for green in new housing projects in rural areas, How government and market forces can influence spatial quality (in Dutch: Rood voor groen bij nieuwbouw in het buitengebied, Samenspel van markt en overheid voor ruimtelijke kwaliteit).

² Buitelaar, E. & Needham, B. (2005). De retoriek voorbij. In S&RO 01/2005, pp. 62-65

³ Needham, B. (2006). Financiering en beleid, 'voor wat, hoort wat?' In H. den Hartog (ed.) (2006). Exurbia /Wonen buiten de stad (pp 133-139). Episode publishers Rotterdam.

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