Planning nature conservation in Dutch metropolitan landscapes

Raoul Beunen, Ronald van Ark, Arnold van der Valk and Rinus Jaarsma
Wageningen University, Department of Environmental Sciences,
Land Use Planning Group, Wageningen, The Netherlands
raoul.beunen@wur.nl

Introduction

Evaluations of Dutch nature management policy show that the implementation of this policy is behind schedule (Milieu- en Natuurplanbureau, 2002). In this context the policy document 'Nature for People, People for Nature' (Ministry of Agriculture, Nature Management and Food Quality, 2000) outlines a number of problems: "With our current policy, we are unable to realise the national ecological network of the quality required, in time. The creation of ecological corridors between nature areas in particular has been difficult. An evaluation of current nature management policy documents shows that our approach to nature is very complicated and does not always have the envisaged effect at other levels of government".

The Netherlands (figure 1) is the most densely populated and urbanised country in the EU. Land is a scarce commodity, particularly in the west, where the rate of urbanisation is highest (Van der Valk, 2002). Urban growth also impacts the southern and eastern regions of the country, particularly along the traffic arteries connecting the Netherlands to Belgium and to Germany.

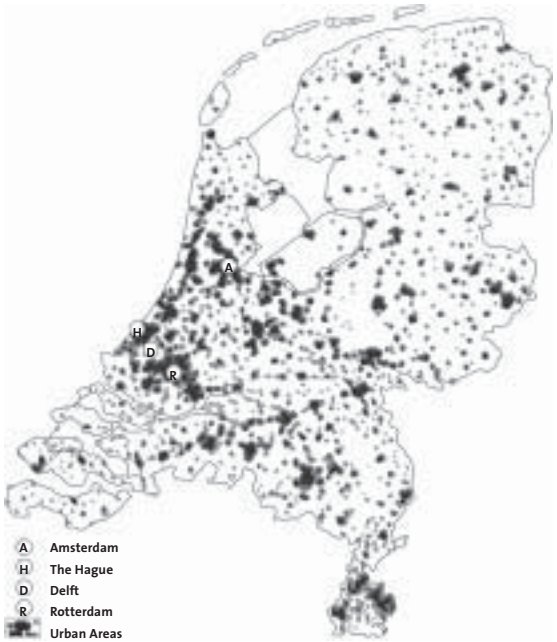

Figure 1: Dutch metropolitan landscapes

Towns, cities, suburbs, woods, farmland, horticulture, roads, parks and business parks merge into an urban field, the metropolitan landscape (Albers & Boyer, 1997; Daniels, 1999). A metropolitan landscape encompasses built-up areas and open spaces situated within the urban sphere of influence. The impact of the metropolis is extensive since, due in part to increasing mobility, accessibility (i.e. travel times) rather than distance has become a determining factor (Simmonds & Hack, 2000; Hajer & Zonneveld, 2000).

Scarcity of land for urban land uses exerts a constant threat for the remaining farms, woodlands and nature reserves. In the "war" on land the balance of economic interests and environmental/spatial quality is subject to

fierce debate among stakeholders (Healey, 1997). As a result of the relatively high demand for space for 'profitable' purposes such as living, working and transport, areas become built-up and fragmented with infrastructure, the shortage of land intensifies in general and, consequently, the price of land goes up. Such spatial consequences of the metropolitan landscape negatively impact the 'less profitable' uses that traditionally dominate open spaces, including nature areas.

Open spaces are perceived by residents as important ingredients for the quality of life in the metropolitan landscape. There is a growing tendency to spend public and private funds for the acquisition of land and development rights in open spaces. In the Netherlands so called green funds are an emerging phenomenon. One example is the 'green fund scheme' for the open space of Midden-Delfland between the cities of The Hague, Delft and Rotterdam. The Midden-Delfland green fund is the result of a financial agreement between the urban municipalities of The Hague and Delft and the rural municipality of Schipluiden. The aim of this agreement is to preserve and enhance the open agricultural landscape of Schipluiden (http://www.schipluiden.nl).

This demand for open space in the metropolitan landscape opens up opportunities for nature conservation and nature development because physical space is required to protect and expand existing nature areas. Furthermore, the mutual proximity of these areas and the connections between them are essential for the survival of certain populations of flora and fauna (Opdam et al., 1985; Opdam et al., 1995; With et al., 1996).

In this paper, we relate Dutch nature management policy with principles of spatial planning. The paper clarifies planning principles with regard to the metropolitan landscape and demonstrates how this knowledge can be used to improve the effectiveness of nature management policy. We will reflect on the bottlenecks in nature management policy and provide solutions. We draw on empirical data from two case studies.

The first case study addresses nature development, more specifically the development of ecological corridors. In 1998, the province of Gelderland commissioned a study into the possibilities for creating ecological corridors. As part of this study, 40 extensive interviews were conducted with various parties involved in two specific regions (Van Ark & Beunen, 1998). The second case study focuses on nature conservation, more specifically the implementation of the EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive). Sanderink (2003) conducted a study into the main causes of problems arising during planning processes and projects ensuing from the Habitats Directive. For this study 11 extensive interviews were held with governmental and non-governmental organisations involved in projects that were frustrated by European nature conservation legislation. For an extensive description of the backgrounds, the methods and the results for both cases we refer to the original research reports, respectively Ark & Beunen (1998) and Sanderink (2003). In this paper we focus on the most relevant results.

Case studies

Nature development: ecological corridors

Dutch nature management policy is largely based on the ideas laid down in the Nature Policy Plan (Ministry of Agriculture, Nature Management and Food Quality, 1990), of which the development of the national ecological network is a central feature. This heralded the transition in nature management policy from a passive conservation policy to an active development policy (De Jong, 2000). The national ecological network comprises key areas, nature development areas and ecological corridors (Ministry of Agriculture, Nature Management and Food Quality, 1990), which have been mapped out. The Nature Policy Plan introduced the 'ecological corridors' concept as a strategy to give significant impetus to the fragmented nature areas in the Nether-

lands. The idea is that joining areas of nature enhances the sustainability of various populations of flora and fauna. In the 1990s, the Ministry of Agriculture, Nature Management and Food Quality mapped out a number of ecological corridors in the Nature Policy Plan. The provincial authorities, municipal authorities and water boards largely included these corridors in their plans. In addition, these lower tiers of government mapped out many other regional and local ecological corridors. Consequently, the concept of ecological corridors became a commonly used concept, although it was often – and still remains – unclear what the line on the map specifically entails. Despite the fact that all these organisations mapped out the ecological corridors, the creation of ecological corridors lags behind the schedule laid down in the Nature Policy Plan (Milieu- en Natuurplanbureau, 2002).

The case-study revealed that many players are involved in the creation of ecological corridors, including municipal authorities, water boards, farmers, private land owners and many interest groups. From the interviews we concluded that none of the parties was averse to ecological corridors. On the contrary, many were, each in their own way, planning and realising ecological corridors. The interviews demonstrated that these parties represented a wide range of objectives and interests and often held widely varying views of ecological corridors. Some of the interviewed parties were interested in co-operating in creating hedgerows, bushes or ponds because they appreciate the elements of an ecological corridor as part of a scenic landscape. Others were interested in subsidies for nature management on their property as an additional source of income. However, these non-ecological views often do not meet the ideas policy makers have about ecological corridors and vice versa. In developing the ecological corridors concept, attention was paid primarily to ecological aspects, including the scope and development of areas and the required space between them. This approach was included in concrete plans to create ecological corridors. This governmental view is difficult to link with the ideas other parties have about ecological corridors. The approach has little chance of successfully creating ecological corridors since it offers few opportunities to generate the regional support and resources required. On the contrary, the interviews revealed that this sectoral, one-sided, approach caused many land users and owners (farmers in particular) to view this land claim as a threat, due in part to any subsequent effects of nature development on current or future (agricultural) use. As a consequence, substantial investments and a great deal of persuasion are required to achieve any results.

Nature conservation: Habitats Directive

The implementation of European nature conservation legislation (European Commission, 1992) caused problems for public and private activities in the Netherlands, like construction of new buildings or expansion of infrastructure. Following appeal, the national courts annulled various decrees since they were inconsistent with the European Habitats Directive. As an additional problem, individuals have made spurious use of the Directive in an attempt to stop certain developments (Van den Top & Van der Zouwen, 2002). The resulting publicity has made nature conservation legislation a key topic of debate. No one is happy with the current situation (RLG, 2002; VNO-NCW, 2002). Various projects have unnecessarily encountered roadblocks. The fear of coming against similar situations with new projects has increased resistance to nature conservation legislation. The legal jostling frustrates the spatial development of other uses and undermines support for nature conservation.

The study of these conflicts revealed that the problems are not so much caused by the legislation as such, but rather by its implementation and the communication and knowledge exchange related to it. In many cases, the courts annulled decrees since the requirements of the Habitats Directive were insufficiently taken into consideration due to a lack of attention, knowledge or awareness. Reasons for such annulments include the argument that it has not been sufficiently proven that the project has no significant effects, that

no research had been conducted into the effects or that the lack of reasonable alternatives has not been convincingly demonstrated. It is not so much nature conservation legislation that causes the problems, but the fact that in decision-making processes the Habitats Directive often was not taken into consideration. By ensuring that, if necessary, the requirements of the Habitats Directive figure prominently in planning processes, most of the bottlenecks currently encountered can be avoided. After all, "there is not any a priori prohibition of new activities or developments within Natura 2000 sites; these need to be judged on a case by case basis" (European Commission, 2003, p. 2).

Nature management policy in a planning perspective

If it concerns spatial issues, nature management policy should be regarded as a subject of spatial planning. From an analytical perspective, spatial planning comprises spatial arrangements as well as organisational and procedural arrangements (Van Ark & Hidding, 2002). Questions on spatial arrangements address the actual, physical object and primarily involve substantive knowledge and spatial concepts. The approach of Dutch nature management policy focuses largely on these spatial arrangements. However, ecological expertise, technology and methods alone are not enough to successfully implement nature policy. This also requires knowledge of the administrative aspects, of the way in which the decision-making process is conducted, of procedures and organisational structures and of the role of the parties involved in the entire process. The characteristics of the metropolitan landscape require a specific approach to spatial planning. Each use of space is tied to certain players who all have their own objectives, such as water management bodies, farmers, nature management bodies, home owners, etc. The various land uses fall under different policy areas, including nature management policy, agricultural policy and water management policy.

The traditional planning approach entails the development of plans by the upper tiers of government and the implementation of these plans by the lower tiers of government, which then must garner support from private individuals and organisations. However, in many instances, both the ability for the higher tiers of government to direct the lower tiers of government and the influence the government has on private individuals and organisations is limited. This can be attributed to both a lack of resources or authority on the part of the various tiers of government and the fact that they lack the specific knowledge, local and otherwise, required to develop effective plans. For this reason, coalitions are required in such situations since players can only consider their own competence during the planning process (Mastop, 1987). In some ways, the government fulfils a double role. On the one hand, the government must, in fulfilling its responsibilities, establish certain preconditions (i.e. objectives). On the other hand, the various tiers of government – each with their own competencies – must define the possible options in collaboration with other public and private parties. Consequently, in many instances, the interdependence of the various tiers of government and other parties means that government can only exercise control within networks (Goverde & Tatenhove, 2000). Although the government certainly continues to play a unique role, owing to its specific authorities and democratic legitimacy, it can no longer be viewed as a central player.

Due to these interdependencies, policy development and decision-making are more than ever negotiation processes, conducted not only between government and third parties, but increasingly between the various tiers of government (De Roo, 1999). Accordingly, attention must shift from the organisation of government competencies and policy tools and measures, known collectively as 'government', to less formalised practices of 'governance' (Healey, 1997; Hajer & Zonneveld, 2000; Janssens & Van Tatenhove, 2000). This gives rise to other forms of collaborative partnerships. Moreover, it means that planning processes become more important than (official) planning documents (Janssens & Tatenhove, 2000). Obviously, laying down options at certain moments in a planning document (i.e. plan, vision, policy doc-

ument, etc.) may still be important. However, these planning documents are only part of a more comprehensive and long-term cyclical planning process (Mastop, 1987). This demands a new way of thinking. It not only requires another modus operandi, but particularly a review of the role of the various public and private players in the decision-making process.

The approach of nature management policy in The Netherlands is characterised by a traditional planning approach, meaning a hierarchical approach, based on governmental plans. Furthermore, this approach is sectoral oriented, because it mainly focuses on the ecological aspects. This approach puts a strain on the collaboration between the government and the stakeholders involved because the policy goals cannot be linked with the goals and views of other parties. Both cases illustrate this. The sectoral approach entails the risk that the necessity of and possibilities for combining the objectives of other parties will not be recognised (Van Ark & Beunen, 2002). Nature policy in metropolitan landscapes requires a different planning approach than the hierarchical planning approach. Involving the stakeholders in the decision-making processes can help to generate knowledge, provide the needed resources and legitimacy of plans (Hajer & Zonneveld, 2000).

The sectoral and hierarchical control by the Dutch government, particularly with regard to nature management policy, is not in line with the need to integrate the various spatial claims and the fact that, in many instances, various parties, including the various tiers of government, are interdependent. This approach is one of the key reasons why the creation of ecological corridors has encountered so many problems. Traditional plans often do not dovetail with the views and requirements, spatial and otherwise, of other players. It is advisable to consider ecological corridors in a broader context to enable co-ordination with the objectives and interests of the other parties. Planning the ecological corridors requires that the higher tiers of government take a more reserved approach (controlling the main lines).

The implementation of the Habitats Directive has revealed that problems largely arose due to the fact that the directive was insufficiently taken into consideration in the decision-making process. When the requirements of this directive are sufficiently taken into account during the planning process, these problems can largely be avoided. Investigating and limiting as much as possible the possible negative impact on nature from the start enables the parties involved to properly consider the various interests and take a well-considered decision regarding the developments that are or are not wanted. Involving the various interest groups from the start not only brings additional knowledge to the table, but also creates broader support for decisions and, consequently, reduces obstructions, which may take the form of legal procedures.

Conclusions

There is a lack of space for nature development and conflict is arising more frequently between nature and other spatial claims in metropolitan landscapes. Yet, urban claims attach growing importance to certain qualities of open space, including the presence of nature. The implementation of current Dutch nature management policy entails a number of bottlenecks, which are due in part to the fact that the characteristics of the metropolitan landscape are insufficiently taken into consideration in nature management policy. A review of the situation in the Netherlands demonstrates that nature management policy focuses primarily on spatial arrangements (for example, the creation of the national ecological network) and generally overlooks the importance of organisational and procedural arrangements (planning approaches and procedural concepts).

Nature management policy is formulated to guarantee the preservation of biodiversity. Particularly in metropolitan landscapes, which are characterised by competing demands for space, it is vital to generate and maintain sufficient support for nature conservation and development. In general, more attention should be paid to the decision-making processes and the role of

other (public and private) stakeholders and their goals and views. Each situation requires a different planning process as each development issue has its specific objectives, domains and players. Taking into account the requirements that metropolitan landscapes set for both the spatial arrangements and the organisational and procedural arrangements, enables the formulation of feasible nature management policy, which responds to the complexities of these decision-making situations.

References

Albers, G., Boyer, J. (eds.), 1997. Open space in Urban Areas, Hannover: Verlag der ARL.

Daniels, T., 1999. When City and Country Collide. Managing Growth in the Metropolitan Fringe. Island Press, Washington D.C.

De Jong, D., 2000. Nature Conservation Policy: Transboundary Arrangements. In: J. Tatenhove, B. Arts, and P. Leroy (eds.), Political Modernisation and the Environment. The Renewal of Environmental Policy Arrangements. Kluwer Academic Publishers, Dordrecht, 97-115.

De Roo, G. 1999. Planning per se, planning per saldo: over conflicten, complexiteit en besluitvorming in de milieuplanning. Sdu Uitgevers, Den Haag.

European Commission, 1992. Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora. European Commission, Brussels.

European Commission, 2003. Commission strategy to protect Europe's most important wildlife areas – frequently asked questions about NATURA 2000. Brussels.

Goverde, H., Van Tatenhove, J. 2000, Power and Policy Networks. In: H. Goverde, P. Cerny, M. Haugaard, H.H. Lentner (eds.), Power and Contemporary Politics. Sage, London, 96-111.

Hajer, M., Zonneveld, W., 2000. Spatial Planning in the Network Society – Rethinking the Principles of Planning in the Netherlands. European Planning Studies, 8 (3), 337-355.

Healey, P., 1997. Collaborative Planning, Shaping Places in Fragmented Societies. Macmilland Press LTD, Hong Kong.

Janssens, J., Van Tatenhove, J., 2000. Green Planning: From Sectoral to Integrative Planning Arrangements. In: J. Tatenhove, B. Arts, and P. Leroy (eds.), Political Modernisation and the Environment. The Renewal of Environmental Policy Arrangements. Kluwer Academic Publishers, Dordrecht, 145-174.

Mastop, J.M. 1987. Besluitvorming, handelen en normeren: een methodologische studie naar aanleiding van het streekplanwerk. Planologisch en Demografisch Instituut van de Universiteit van Amsterdam, Amsterdam.

Milieu- en Natuurplanbureau, 2002. Natuurbalans 2002. Kluwer, Alphen aan de Rijn.

Ministry of Agriculture, Nature Management and Food Quality, 1990. Natuurbeleidsplan. Den Haag.

Ministry of Agriculture, Nature Management and Food Quality, 2000. Nota Natuur voor Mensen, Mensen voor Natuur. Den Haag.

Opdam, P., Foppen, R., Reijnen, R., Schotman, A., 1995. The landscape ecological approach in bird conservation: integrating the metapopulation concept into spatial planning. Ibis 137: 139-146.

Opdam, P., Rijsdijk, G., Hustings, F., 1985. Bird communities in small woods in an agricultural landscapes: effects of area and isolation. Biological Conservation 34, 333-352.

RLG, Raad voor het Landelijk Gebied, 2002. Voorkomen is beter... Advies over soortenbescherming en economische ontwikkeling. Publicatie RLG 02/5.

Sanderink, T., 2003. De macht van de korenwolf. Consequenties van Europees natuurbeleid op ruimtelijke ingerepen in Nederland. Wageningen University, Wageningen.

Simmonds, R., Hack, G. (eds.), 2000. Global City Regions. Their Emerging Forms. Spon Press, New York.

Van Ark, R.G.H., Beunen, R. 1998. Implementatie van ecologische verbindingszones. Een onderzoek naar de succes- en faalfactoren. Wageningen University, Wageningen.

Van Ark, R.G.H., Beunen, R., 2002. Natuurlijk Combineren! Landschap 19 (2), 123-128.

Van Ark, R.G.H., Hidding, M.C., 2002. New strategies for spatial planning in the Netherlands: the role of regional contracts for the advancement of multiple land use. In: proceedings Fourth International Conference on Multiple Use of Land, June 20-22, 2002, Bellingham, USA.

Van den Top, M., Van der Zouwen, M., 2002. Europees natuurbeleid in Nederland: een pionier die zichzelf in de weg loopt. Landschap 17 (2), 81-96.

Van der Valk, A., 2002. The Dutch planning experience. Landscape and Urban Planning 58, 201-210.

VNO-NCW, 2002. Soortenbescherming in Nederland. Vereniging VNO-NCW, Den Haag.

With, K.A., Gardner, R.H., Turner, M.G., 1996. Landscape connectivity and population distribution in heterogeneous environments. Oikos 78, 151-169.