

14 The transfer of Building with Nature approach in the context of EU Natura 2000

*Vera Vikolainen, Kris Lulofs and
Hans Bressers*

14.1 Introduction

This chapter contains two types of transfer: the transfer of the European Union (EU) Natura 2000 biodiversity policy from the supranational level to the member-state level and the transfer of Building with Nature, an emerging approach to water infrastructure design and development. The two types of transfers are related: the transfer of the EU Natura 2000 to a large extent determines the context for the transfer of the Building with Nature approach within the EU.

The EU Natura 2000 biodiversity network is a policy strategy for the implementation of the EU Birds and Habitats Directives (EEC, 1979, 1992). The directives introduced a protection regime for species and habitats while the designation of Natura 2000 areas had substantial consequences for plans and projects with potentially negative effects on the ecological values of species and habitats. As the transfer of Natura 2000 policy involved the imposition of a certain policy onto member states' governments by an external government or supranational institution it is an example of a *coercive transfer* (Dolowitz and Marsh, 1996). The implementation of Natura 2000 and the directives' requirements with respect to water infrastructure was problematic and caused project delays and cancellations across north-west Europe (Van Hooydonk, 2006; Mink, 2007).

Building with Nature is a modern water management concept also referred to as Eco-dynamic Design and Development, or Working with Nature (PIANC, 2011; EcoShape, 2012). Building with Nature aims to integrate ecosystem characteristics and socio-economic objectives at the initial design stage of water infrastructure projects in estuaries and coastal zones. This approach proposes to use nature's status and dynamics as a starting point to create designs where new infrastructure is developed alongside improved ecosystems. The initial expectation of Building with Nature proponents was that the EU network of protected Natura 2000 areas would have a negative effect on the transferability of this approach within the EU. The reason for this is that Natura 2000 aims to protect existing characteristics of ecosystems, while Building with Nature aims at

ecosystem development, which makes physical interference necessary to realize the desired potential of ecosystems. Building with Nature experiments are ongoing in the Netherlands (e.g. large-scale sand nourishment of the Dutch coast as means of flood protection, also known as the 'Sand engine') however there are not yet any completed examples of the transfer of this water management concept to other EU member states. Nevertheless, the approach is already being promoted by the European Commission in the area of port development and dredging (European Commission, 2011) and inland waterway development and management (European Commission, 2012). Hence it is helpful to anticipate the chances of Building with Nature succeeding within the varied context of Natura 2000 in different EU member states. This attempt to assess the effect of an initiative before it is put into place is also referred to as *prospective transfer evaluation* (Mossberger and Wolman, 2003). Prospective transfer evaluation of Building with Nature is particularly interesting given the fact that this approach has a potential to become a 'best practice' for water management in estuaries and coastal zones.

This chapter is structured around two research questions. The first research question is descriptive: what does the transfer of Natura 2000 in north-west EU member states look like? To answer this question, the chapter presents the review of literature on Natura 2000 implementation in north-west Europe, including France, Belgium, the Netherlands, Germany, and the United Kingdom (UK). These member states face similar challenges in implementing the directives due to their high population density and intense economic activity. However, the other EU member states (Austria, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden) are also included when they are covered in the literature referred to in this chapter. Extra attention is paid to the experience in the Netherlands because it is the member state where Building with Nature experiments currently take place.

The second research question is exploratory: what are the opportunities for successful transfer of the Building with Nature approach within the EU Natura 2000 context? To answer this question the chapter builds on the understanding of structural and specific contextual factors as specified in the Contextual Interaction Theory (CIT) (Chapter 3 of this book). CIT is used as a conceptual lens to structure the Natura 2000 context into a manageable framework, but not in the strict sense of the word 'theory' for hypotheses generation and/or testing. With the help of the CIT, the specific and structural context factors, which constitute the Natura 2000 context, are identified and systematized. Understanding of the Natura 2000 context is a first step in the prospective evaluation of Building with Nature transfer and could guide the actual transfer of this concept across the EU in the future.

The chapter is structured as follows. In Section 14.2 the historical background of Natura 2000 transfer is sketched based on the national implementation arrangements made by the member states to fulfil the requirements of the Birds and Habitats Directives. In Section 14.3 Building with Nature as a new approach for the design and development of coastal and delta infrastructure is introduced. In Section 14.4 the framework for prospective transfer evaluation is offered and the potential for Building with Nature to become a best practice is discussed. In Section 14.5 the two research questions are answered.

14.2 Implementation of the Birds and Habitats Directives

Nature conservation policy in the EU is based on the Birds Directive (79/409/EEC) and the Habitats Directive (92/43/EEC). A directive is one of the formal legal instruments for developing EU policy. The provisions of a directive are binding regarding the results to be achieved. For example, 'favourable conservation status of species and habitats' under the Birds and Habitats Directives is binding upon each member state to which these directives are addressed. The aim of a directive is to bring together and coordinate the laws of the member states in the policy field addressed by the directive. For each directive, a deadline is set to harmonize national laws in a way that secures the achievement of a directive's goal. Below we briefly introduce the main goals as set by both the Birds and Habitats Directives, as they establish and shape the governance of Natura 2000 areas.

The Birds Directive aims to conserve all species of naturally occurring birds in the wild state in the European territory of the member states, whereas the Habitats Directive aims to contribute towards ensuring biodiversity through the conservation of natural habitats of wild flora and fauna in the European territory of the member states (Article 1 of the Directives 79/409/EEC and 92/43/EEC, respectively). The member states were required to take the following steps in order to achieve the goals set by the directives:

- 1 Transpose the directives into national law (within two years of its notification).
- 2 Select and designate protected sites: Special Protection Areas (SPA) prescribed by the Birds Directive and Special Areas of Conservation (SAC) prescribed by the Habitats Directive.
- 3 Take conservation measures in the designated areas involving, if need be, a management plan.
- 4 Assess any plans and projects that are likely to have significant effect on the designated areas according to the procedure of Article 6 of the Habitats Directive.

In 2010, all member states had a legal framework for the implementation of the directives and the designation of SPAs and SACs into Natura 2000 sites, while more than 80 per cent of the member states have selected and designated about 80–100 per cent of their sites. Most of the member states plan to complete formal SAC designations in 2013–2014 (Van Apeldoorn *et al.*, 2010). The formal implementation stage is underway and its progress has been analysed in the literature.

Transposition of the Birds and Habitats Directives into national legislation

The way in which national legislation transposes the directives partly depends on the constitutional structure of the country. In France and the Netherlands, the central authorities passed the necessary legislation; in Belgium, it was passed at the regional level; in Great Britain legislation applies to England and Wales, while Scotland and Northern Ireland have their own legislation. In the Netherlands, species and habitats protection were transposed with two separate laws: site protection in the Amended Nature Conservation Act 1998 (entered into force in 2005) and species protection in the Flora and Fauna Act (2002). In the Belgian region of Flanders, habitat protection was transposed in the Amended Nature Conservation Decree 2002 (entered into force in 2004) and species protection is still in development. In the UK, the Birds Directive is transposed in the Wildlife and Countryside Act of 1981, the Wildlife Order (Northern Ireland) of 1985 and the Nature Conservation and Amenity Lands Order (Northern Ireland) of 1985. The Habitats Directive, including species protection, is transposed in the UK Habitats Regulations of 1994. Austria, Germany, England, Flanders and the Netherlands transposed the directives' provisions in nature conservation legislation. In France and Sweden, the transposition has taken place in environmental law: Environmental Code (statutory provisions) and Rural Code (regulatory provisions) in France and Environmental Code in Sweden. The legislation in countries with a federal structure, like Germany and Austria, varies widely on details in the individual federal states.

In many member states, the directives were not transposed within two years of their notification (the deadline set by the Commission). This could have been caused by the member states not prioritizing and allocating adequate resources to the implementation of the directives. At the same time, many environmental non-governmental organizations (NGOs) could offer resources and expertise required by the directives and pressured member state governments and administrations by making complaints of non-compliance to the Commission (Paavola, 2004). Such complaints are one of the ways for the Commission to stay informed about the process and to fulfil its function as a watchdog over the implementation of the EU treaties. In accordance with Article 226 of the EC Treaty, the Commission can enforce sanctions against member states for non-compliance with the directives by

referring the cases to the European Court of Justice. The European Court of Justice issued more than sixty rulings concerning the Birds Directive and forty-five rulings concerning the Habitats Directive (Beijen, 2010). Most of them were infringement procedures initiated by the European Commission for incorrect, incomplete or late transposition into national legislation, for instance in the Netherlands, Belgium, France and Italy.

Where the Habitats Directive was not correctly or timely transposed, the cases pending before national courts were checked directly against the directive's provisions (Backes *et al.*, 2006). Furthermore, the areas that were included on the list of Sites of Community Importance (SCI) but not yet designated nationally (this could take up to six years), were already protected under Article 4 paragraph 5 of the Habitats Directive. Article 6 of the Habitats Directive applied to these areas directly, irrespective of whether this provision has been correctly transposed into national law. Direct application of the Habitats Directive compelled by national courts led to many problems in practice. The situation in the Netherlands is a good example in this regard.

In the Netherlands, the Birds and Habitats Directives were completely transposed into national legislation only in 2005. The Dutch government failed to inform actors about the consequences of both directives. This failure caused a legally obscure situation and led to many problems (Beunen, 2006). The actors involved in the decision-making processes, such as project developers and street-level officers simply did not know about these directives or did not know how to apply them. This lack of attention, knowledge and awareness led to a decision that rarely met the requirements of the directives, i.e. an appropriate assessment of project effects was not done (Beunen, 2006; Beunen *et al.*, 2009). As a result, many plans and projects were challenged in court by environmental NGOs because of the presence of protected species, and thus protected species became a symbol of the directives' restrictive effect on spatial development in the Netherlands (van der Zouwen and van Tatenhove, 2002). After the first cases were decided upon in court, the role and influence of courts, judges and lawyers increased, as did the dominance of legal perspective on the directives' implementation in the Netherlands. Many of the articles published about the consequences for Dutch planning practices have been written by lawyers (e.g. Bastmeijer and Verschuuren, 2003, 2004; Verschuuren, 2003, 2004). Initial negative experiences with the directives have created an image that economic developments in the Netherlands are 'locked up' because of the implementation of these two directives. To some extent, this image is still influential in current political and professional debates (Arnouts and Kistenkas, 2011).

Natura 2000 site selection and designation

The Birds Directive gives the member states limited freedom in selecting the protection areas. It only allows the use of ornithological criteria to

designate SPAs and only the reasons of public safety (e.g. flood risk) to derogate from these criteria. Site protection under the Birds Directive (Article 4 paragraph 4) is extremely strict and does not allow any exceptions. This regime was later replaced by the habitat assessment (Article 6 paragraphs 2–4 of the Habitats Directive), which is more flexible, as it allows derogations for reasons of overriding public interest. Species protection is extremely strict and applies to all birds occurring in the wild (not only to endangered species) and derogations are limited. Similarly, only ecological criteria could be used to designate SACs under the Habitats Directive. Strict designation requirements of both directives explain the unwillingness of the member states to designate SPAs and SACs (Beijen, 2010).

Furthermore, scientific information for site designation was not always available and the directives provided no detailed designation guidelines. As a result, several member states have designated too few areas, areas that are too small, or have later tried to change their initial designations. This led to a considerable number of rulings of the European Court of Justice on the failure of member states to submit lists of designated sites in conformance with the deadlines (Paavola, 2004). Recent statistics show that the member states designated between 3 per cent and 26 per cent of their total national area as SPA and between 7 per cent and 31 per cent of their total national area as Sites of Community Importance (SCI, soon to be designated as SAC) (Natura 2000 Barometer, 2010).

The comparison of designated sites in Flanders, the Netherlands, England and the German federal states Lower Saxony and North-Rhine Westphalia shows that the Netherlands has designated relatively large areas: half of the sites are 100 ha or larger (Bouwma *et al.*, 2008). Flanders, the Netherlands, Lower Saxony and North-Rhine Westphalia designated an almost equal percentage of their total surface area (between 8 per cent and 14 per cent). England had the least amount at 6 per cent and the UK total is 8.9 per cent. The Netherlands has relatively many SPAs under the Birds Directive due to the importance of its territory for migrating birds. Belgium has the highest number of SPAs under the Birds Directive (234) per country surface of all twenty-seven EU member states (the EU-27) (Ministerie van Economische Zaken, Landbouw en Innovatie, 2011).

The final responsibility for area designation rests in all member states at the ministerial level. In the federal states, formal designation can take place also under regional or provincial legislation (e.g. Belgium). The member states differ in the way they designate sites. Van Apeldoorn *et al.* (2010) discern two groups:

- 1 Those that favour general designation with only few site characteristics (name, location, borders and area; also species and habitats). Site objectives are worked out in detail in management plans. France and the UK are examples of this way of working.

- 2 Those that developed a detailed designation specifying site objectives and descriptions. This way of designation can be found in, among other countries, the Netherlands.

A general designation document may lead to uncertainty about the site objectives and hence more time consuming preparation of the management plan. A more detailed designation document, on the other hand, may lead to less time-consuming preparation of the management plan, but requires more site-specific information and thus takes more time to prepare.

The responsible ministries can decentralize some Natura 2000 implementation tasks to regional bodies, national committees, working groups or independent administrative bodies. A comparative study by Neven *et al.* (2005) found that functional decentralization in the Anglo-Saxon and Nordic culture leads to a more effective implementation process of Natura 2000. In the UK, Natural England is an intermediary depoliticized organization between central and decentralized levels of government in the specific area of nature conservation. This intermediary organization has the advantage of facilitating and mediating between policymakers and the policy area, which creates support among the stakeholders that implement the policy. Among the disadvantages are that it leads to fewer chances for the administration to integrate other priorities and that it diminishes political control. In France, mediation and negotiation takes the form of 'client' or 'relation' management, which is done at the local level by a prefect. In the Netherlands, decentralization is territorial and has been expressed through delegating certain tasks and authority for nature conservation (e.g. preparation of management plans) to the provinces. The management of many Natura 2000 sites is delegated to large environmental NGOs.

Both directives leave the issues of public consultation and the participation of stakeholders (such as experts, NGOs, lay public members and sector organizations) in site selection and designation to the member states. The member states largely differ in the way that they have dealt with these issues. For EU-27, Van Apeldoorn *et al.* (2010) categorize three types of participation:

- 1 Informal consultation: The public administration body produces information. The public has to find it and look for possibilities to express their opinion. Sometimes consultation meetings have been organized, the results of which may have been taken into account by the administrative authority.
- 2 Formal consultation and approval: The public administration body produces information. Stakeholders have legal rights to express their views and these have to be considered by the administrative authority.

- 3 Shared responsibilities (full participation): Stakeholders are organized and invited to express their opinions and are highly committed to and involved in decision making.

In the first phase of site selection and designation, 50 per cent of the EU-27 member states introduced informal participation. No member state organized participation in the form of shared responsibilities during the designation process. Even though NGOs were strongly involved by helping and advising the responsible ministry in many countries, this always occurred informally. In the later phase of designation most member states have opted for a more flexible strategy with at least some commitment. For instance, the responsible authorities in Finland and France shifted from little or no public participation to a more open way of working (Van Apeldoorn *et al.*, 2010).

Neven *et al.* (2005) have reported on the role of stakeholders in Natura 2000 implementation. According to this study, the implementation in the UK and France is characterized by goal-oriented communication with sector organizations combined with a bottom-up governance practice. Government provides a coaching style of leadership, facilitating contributions of public and private parties and 'learning by doing' strategies. Spain, France and Sweden apply similar bottom-up practices. In the Netherlands, the government exhibits an active and distinctly prescriptive attitude. The Ministry of Agriculture, Nature and Food Quality (now the Ministry of Economic Affairs, Agriculture and Innovation) outline memorandum for Natura 2000 published in 2005 indicates the most important steps in the implementation process and shows 'what must be done' and where there is scope for further consideration. In contrast to France and the UK, where freedom is given to bottom-up consultations with stakeholders, the Ministry of Agriculture, Nature and Food Quality has chosen a more indirect form of participation. In the Netherlands, information from the rounds of talks has been elaborated upon and processed by specialists and site managers into the 'Document for Natura 2000 Objectives' (Natura 2000 Doelendocument, cited in Neven *et al.*, 2005), which is used as a framework for implementation. Still, the relationship between government and environmental organizations is all too frequently characterized by a traditional top-down attitude and relationship (government instead of governance) with too little acknowledgement that the two need each other's resources and each other's knowledge. Other studies done in the Netherlands often stressed the importance of openness and flexibility in steering nature conservation policy (Natuurplanbureau, 1997; RMNO, 2003; RLG, 2003, all cited in Neven *et al.*, 2005, p. 112).

Similarly, Bouwma *et al.* (2008) discern two types of participation with regard to stakeholder involvement in the designation process in the neighbouring areas of the Netherlands: selective and professional

participation. England, Lower Saxony and North-Rhine Westphalia carried out consultations at a local level with managers and owners of the sites (selective participation). By establishing working groups, England, Lower Saxony and North-Rhine Westphalia undertook an extensive site-based consultation process and an official procedure was established at the local level to enable complaints to be lodged prior to the list being sent to the EC. The Netherlands and Flanders involved only professional organizations (professional participation). Their contribution involved giving advice that was then taken into consideration in the policy process. The Netherlands and Flanders carried out consultations at the national and regional level without establishing an extensive site-based consultation process. The main targets included the authorities responsible for the areas and national organizations representing affected stakeholders.

For the neighbouring region of the Netherlands Bouwma *et al.* (2008) conclude that the selective participation in the designation process gave more opportunities to find the best solutions for all and thus generated stakeholder support and increased the legitimacy of later decisions. It also decreased the size of designated areas. Professional participation, on the other hand, deferred potential conflicts until the phase in which management plans were discussed with site owners. For the member states in general, the lack of participation of stakeholder groups in the designation process is the most common source of implementation problems (Paavola, 2004).

Management of Natura 2000 sites

The next step after formal designation is the establishment of necessary conservation measures to achieve the favourable conservation status at site level (in SPA and SAC). Both conservation measures and favourable conservation status need to be defined first, and a management plan is an instrument suggested by the Habitats Directive for this purpose. Only a few member states or regions, such as Flanders and the Netherlands, have formulated objectives at the national or regional level, which would be detailed at the site level. However, in many countries both objectives and plans are yet in their infancy (Kruk *et al.*, 2010).

The first assessment of conservation status based on the best available data covered the period 2001–2006. In the majority of member states, less than 40 per cent of species and habitats had a favourable conservation status (CBS, 2006).

Although management plans for Natura 2000 sites are only suggested by the EU legislation as an instrument to reach a favourable conservation status, they are obligated under national law or a site designation document in about a half of the EU-27 member states. In the remaining half, the plans are often written anyway as guidance for most of the sites. The majority of obligated management plans are also legally binding (Van Apeldoorn *et al.*, 2010; Kruk

et al., 2010). The Netherlands is alone among its neighbouring countries (England, Lower Saxony, North-Rhine Westphalia and Flanders) in that the formulation of management plans is obligatory by national law (Bouwma *et al.*, 2008). An important condition for achieving full implementation of management plans is obtaining high-acceptance levels by stakeholders who are involved in site management, especially where the management plans are not legally binding. In many cases, early and active stakeholder involvement in the designation process has contributed to their acceptance of the plans and their positive attitude towards Natura 2000. Case study results have shown that in a situation where management of the site depends on many different stakeholders, a planning process that emphasizes interaction and cooperation (the UK case) seems to offer better possibilities than a formal and hierarchical planning process (the Dutch case) (Beunen and de Vries, 2011). In Flanders, the original intention was to make management plans compulsory for all Natura 2000 sites. However, after drawing up six pilot schemes, Flanders decided to formulate management plans as an optional strategy. According to the Flemish environmental sector, the consensus-based approach has led to disappointingly low goal targets. The Flemish government agency stated that conducting these processes at every site was too time-consuming, and that the plan should only be used as a tool where suitable. However, Flemish farmers unions were positive about the value of a consensus-based approach to management plans (Bouwma *et al.*, 2008).

In most EU-27 member states, a management plan cannot force land owners and land users to take the necessary management measures, unless they have agreed voluntarily by signing a contract. The instrument of contract-based management is seen more and more as the basis for good site management in many EU countries. This is illustrated by the agri-environmental contracts that are used in all member states. Other instruments include letters of intent, licensing, integration of nature conservation into other programmes (e.g. rural and regional development), lists of permitted and forbidden activities, buying of land from private owners and execution of management (Kruk *et al.*, 2010). However, some issues remain with the financial compensation for land-use restrictions resulting from Natura 2000 and the extent to which interested individuals can participate in voluntary contract-based management. Another issue of concern is the general unwillingness of private landowners to join management schemes. However, in Flanders, the increased possibility of joining voluntary management schemes was viewed positively by land owners and land users, who had previously hostile emotions towards the imposed restrictions (Bouwma *et al.*, 2008).

Assessment of plans and projects under Article 6 of the Habitats Directive

Assessment of plans and projects according to Article 6 paragraphs 3 and 4 of the Habitats Directive, the so-called ‘habitat assessment’, constitutes the

main instrument of Natura 2000. The assessment obliges the authorities to check if a plan or project is likely to have significant effects on a Natura 2000 site, and if that is the case, carry out an appropriate assessment of these effects (Article 6 paragraph 3). In case of a negative assessment, the authorities must check for possible alternatives; and if there are none, state the imperative reasons of overriding public interest and take compensation measures (Article 6 paragraph 4). Initially this formulation sparked considerable criticism due to undefined terms like ‘significant effect’, ‘appropriate assessment’, and ‘overriding public interest’. These terms were later clarified through case law and guidance documents (European Commission, 2000, 2002, 2007a, 2007b).

The application and interpretation of Article 6 by the courts in England, Flanders, Austria, Germany, Sweden, France and the Netherlands has been investigated by Backes *et al.* (2006). On the whole, Article 6 was transposed reasonably well in most countries, although this has taken a considerable period of time and has caused friction. In the Netherlands, the courts have compelled direct application of Article 6, which caused a lot of problems in practice. In France, on the other hand, it seemed that projects that should have been tested against Article 6 have long profited from a tardy transposition because the rulings of local courts applying Article 6 were rejected by supreme courts. No direct check against Article 6 was encountered in England. This may be related to the fact that England had adopted the necessary implementation legislation as early as 1994.

Examples of differences in the transposition of Article 6 of the Habitats Directive in the Netherlands and Flanders are given by Van Hoorick (2004) and Freriks (2004). Article 6 of the Habitats Directive was transposed in Article 36 paragraphs 3–7 of the Nature Conservation Decree in Flanders in 2002. Appropriate assessment in Flanders applies to potentially adverse activities requiring a permit, plans or programmes. The notions ‘activity requiring a permit’ as well as ‘plan or programme’ are defined in the opening of the Nature Conservation Decree. Not all countries provide a statutory definition of a ‘plan’ in their national law (Flanders and Germany are the only ones among those studied by Backes *et al.* 2006). Flemish transposition typically uses ‘activity requiring a permit, plan or programme’ instead of ‘plan or project’ as in the Habitats Directive. The consequence is that certain activities that do not require a permit under the national permit system fall outside the scope of appropriate assessment. It is a shortcoming in the Flemish region that there is no separate permit requirement for these activities (Van Hoorick, 2004). The requirements for compensating measures (Article 36 paragraph 5-2) as stated in the Nature Conservation Decree follow the interpretation guide of the European Commission quite closely, and are perhaps stricter than the original text of Article 6 paragraph 4 Habitats Directive. They require a compensation measure that actively develops an equal habitat or an equivalent surface area of its natural environment.

Article 6 of the Habitats Directive was transposed in Articles 19d–19k of the Nature Protection Act in the Netherlands in 2005. The Dutch Nature Protection Act links to the definitions from the Directive (plan/project) and adds the category ‘other activities’. These categories are broader than the ones found in the Flemish legislation. The decisions about ‘habitat assessment’ in the Netherlands are issued by the provincial authorities as a certificate of incorporation. The Flemish legislation stipulates that in a specific case – the case of overriding public interest – it is always the Flemish government that decides on the existence of overriding public interest, including social and economic considerations (Article 36 paragraph 5). The consequences for a project in the case that the Flemish government does not follow up on the reasons of overriding public interest are therefore not clear (Freriks, 2004).

Furthermore, Backes *et al.* (2006) found that there is a relationship between the roles the courts either do, or do not, play and the meaning of Article 6 in practice. This is explicitly linked to restrictions in access to the courts and the different ways justice is administered within the EU. In both Austria and Germany, there are very limited possibilities for public participation and legal protection available to citizens to contest the national legislation that puts Article 6 paragraphs 3 and 4 of the Habitats Directive into effect. The highest court considers that legal protection of citizens is not required since EU nature conservation directives concern the protection of a general interest as opposed to individual interest. This is not regarded by the European Commission as an infringement of EU law, as citizen involvement is not mandatory in Article 6 paragraph 3. Public participation is mandatory if there is also an environmental impact assessment procedure, but this derives from the Environmental Impact Assessment Directive and not from the Habitats Directive. In England, it is decided in each specific case whether opportunities for public participation are offered and legal protection is often available against sector decisions. There is relatively less haste in England to present differences of opinion on the application of legal frameworks to the courts, and solutions are first sought through consultations. In Sweden, the way the general public is consulted depends on the statute (e.g. physical planning law, etc.) that the decision was taken upon and is usually limited to the ‘affected public’ and environmental NGOs. In Flanders, environmental NGOs have access to the Belgian Council of State to contest decisions. In the Netherlands, access to the appeals procedure against a permit issued under the Nature Protection Act is open to interested parties and stakeholders including environmental NGOs. In the Netherlands, unlike in Germany and Austria, there is no relativity review: an interested party can present all arguments against a decision no matter whether he or she has a specific interest with these arguments. Opportunities for participation in legal actions in the Netherlands are thus much wider compared to the other countries studied.

Another finding by Backes *et al.* (2006) is related to the role of information and guidance as a facilitating measure by the government for proper application of Article 6. In the countries studied, the authorities responsible for transposing and implementing Article 6 published guides or explanatory memorandums on the interpretation of Article 6 earlier than in the Netherlands. The need for information ‘assistance’ is particularly high in France, Germany and England, where there is no separate permit for nature conservation, but the decisions on application of Article 6 paragraphs 3 and 4 are taken within the framework of other permit systems directed more at the approval of plans and projects. The issuing authority in these countries is very often not primarily an expert in the field of nature conservation and is very often advised by an expert government agency, like Natural England in England. The study notes that an expert centrally organized authority like Natural England can prove particularly beneficial for the quality of application of Article 6 Habitats Directive.

14.3 The ‘Building with Nature’ Approach

The concept of ‘Building with Nature’ was introduced by the Czech hydraulic engineer Svašek in 1979 and was further explored and linked to the field of integrated coastal management by Waterman (2008, 2010). Waterman defines ‘Building with Nature’ as flexible integration of coast and water by making use of materials, forces and interactions present in nature, in the context of the hydrological and morphological situation (Waterman, 2010). Sector organizations and supranational authorities have also adopted the concept, although under slightly different names. The process of adoption emerged naturally, as the pressure on estuaries and coasts is experienced by multiple actors due increasing economic activities in these areas. The World Association for Waterborne Transport Infrastructure (PIANC) published its first position paper ‘Working with Nature’ in 2008 and revised it in 2011. PIANC sees ‘Working with Nature’ as doing things in a different order: establish project needs and objectives, understand the environment, make meaningful use of stakeholder engagement and prepare initial project design to benefit navigation and nature (PIANC, 2011). In 2011 the European Commission adopted specific guidelines for dealing with the Birds and Habitats Directives in estuaries and coastal zones (European Commission, 2011). This document stresses that project design ‘should always be based on mutually beneficial strategies with a view to achieving dual goals of both Natura 2000 conservation objectives and socio-economic objectives, according to the “working with nature” concept’ (European Commission, 2011, p. 5). The authorities and practitioners hope that by integrating environmental concerns as early as possible in the project design stage, they serve the environment and society better and improve project implementation in the field of coastal and delta infrastructure.

In the Netherlands, the EcoShape Foundation is at the moment the main proponent of this approach (EcoShape, 2012). The foundation applies the Building with Nature approach to large-scale sand nourishments and ecological landscaping in the Netherlands by adopting three guiding principles: make optimal use of natural forces and processes present in the ecosystem; explore opportunities for nature development as an integral component of project design and reserve space to accommodate for natural system dynamics (Aarninkhof *et al.*, 2010). Although it is too early for the best practices of the approach to be established, more and more projects are beginning to show one or several features of this new approach:

- Exploring opportunities for nature development at the initial project design stage and integrating socio-economic (e.g. flood defence, recreation) and ecological project goals.
- Using nature dynamics and materials occurring in nature in the context of hydrological and morphological situation to achieve the project's goals.
- Creating opportunities for development of new nature, improving the ecological values currently present in the project area.

Building with Nature can thus be defined as an approach that uses natural dynamics to achieve project objectives and integrates ecological value into the outcome. The approach gives natural dynamics a prominent place, while the goal of nature conservation policy is to conserve the existing values. Hence nature conservation policy is an important contextual element related to Building with Nature realization and transfer. Initially, Building with Nature proponents expected that the conservation goals of Natura 2000 would block the efforts to develop ecosystems. However, empirical evidence has shown that this is not necessarily the case (Vikolainen *et al.*, 2011, 2012). More interesting is that Building with Nature – under the name of Working with Nature – has the potential to become a water management ‘best practice’ in Natura 2000 areas. The European Commission encourages its application for port development, dredging and inland waterway development and management in the context of the EU Birds and Habitats Directives (European Commission, 2011, 2012). In the next section we discuss the underlying dynamics of this process.

14.4 Discussion

The first research question asked in this chapter was: what does the transfer of Natura 2000 in north-west EU member states look like? From the literature reviewed in this chapter it became clear that the transfer of the Natura 2000 policy from the supranational level to the member-state level varies across member states. Nonetheless, it is possible to make a conceptual representation of the factors that constitute the Natura 2000 context. The

Natura 2000 factors discussed in Section 14.2 can be divided into two categories: site-related and governance-related. Using the insights from CIT, these factors are grouped according to the contextual layers as specific and structural context factors as shown in Figure 14.1. The member states differ in their choices of legal framework for the transposition of the EU directives and especially Article 6 of the Habitats Directive, the participation arrangements for stakeholders affected by designation, the possibilities for the general public to contest the decisions regarding implementation of the directives' provisions, the availability of national information and guidance for the directives' implementation and the authorities responsible for national implementation. Additionally, each member state defines the size and borders of Natura 2000 sites, determines whether management plans and/or contracts will be used, defines the conservation status and sets the conservation objectives for the site.

Prospective transfer evaluation requires information about programmes that are in effect elsewhere as well as awareness of the differences in policy settings (Mossberger and Wolman, 2003). This is often problematic, especially in complex policy arenas like that of Natura 2000 with its many variables to consider. The representation of the Natura 2000 context shown in Figure 14.1 could serve the purpose of creating awareness about the Natura 2000 context for the prospective transfer of the Building with Nature approach within the EU. The next step would be to isolate the factors that matter and gain sufficient knowledge for understanding the impact of those factors, which is not an easy task. Figure 14.1 suggests that specific context factors, which include Natura 2000 site size, borders, available management

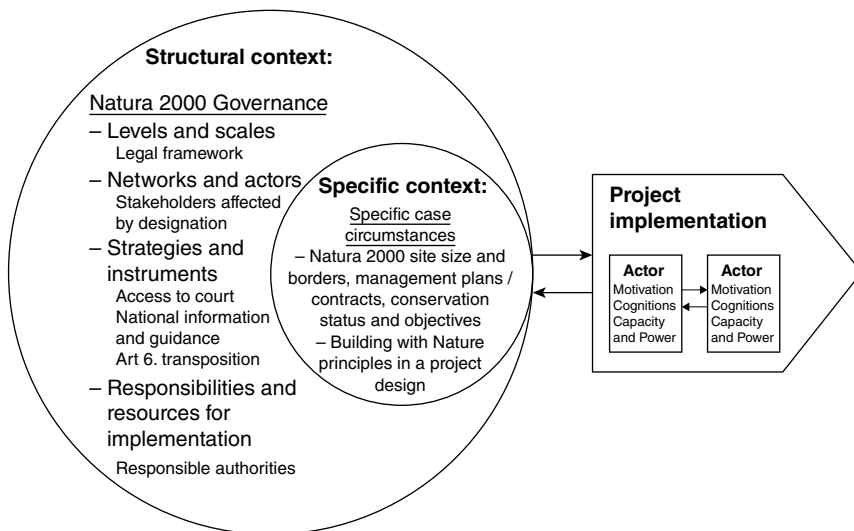


Figure 14.1 The transfer of Natura 2000 to the member-state level.

plans and/or contracts, conservation status and objectives, constitute the immediate environment where a Building with Nature project would take place. As Mossberger and Wolman (2003) suggest, prospective evaluation hinges on the ability to predict the adaptations required for successful implementation. If any adaptations were to be made to a Building with Nature project to increase its effectiveness within the Natura 2000 context, they should be related to the specific context factors of Natura 2000. For example, empirical evidence has shown that a project design that explicitly takes into consideration the conservation objectives of Natura 2000 site has more chances of success if an appeal is made to an administrative court (Vikolainen *et al.*, 2011). Another possibility that deserves further investigation is the introduction of Building with Nature principles in Natura 2000 management plans, which are currently in preparation in several member states. Specific context, in turn, should be considered against the background of structural context factors, which vary across member states.

The second research question asked in this chapter was: what are the opportunities for successful transfer of Building with Nature approach within the EU Natura 2000 context? The application of Building with Nature is encouraged by the European Commission for port development, dredging and inland waterway development and management in the context of the EU Birds and Habitats Directives (European Commission, 2011, 2012). The concept of best practice (or good practice) is rife in European policies and programmes (Stead, 2012). The strategy of encouraging best practices and models of behaviour pursued by the European Commission is efficient for building 'technocratic' legitimacy: the Commission cannot be accused of trying to impose 'the view of Brussels' if it follows a policy design that is already in place somewhere in the EU (Radaelli, 2000). However, initial expectations of Building with Nature proponents were quite different, if not the opposite. In particular the private members of the EcoShape consortium expected the efforts of eco-dynamic design and development to be blocked by the Natura 2000 conservation objectives, which they perceived as too rigid.

Although Building with Nature is not yet fully in place in the Netherlands, it is taking root in Dutch water management. In 2008, the commission appointed by the Dutch government to address the long-term threats of climate change recommended the application of Building with Nature principles for beach and shoreface nourishments, which include the primary measures to guarantee long-term safety and development of coastal zones (Delta Commission, 2008). According to Tews *et al.* (2003) 'high' environmental standards of pioneering nation-states often find their way into international agreements and recommendations with weak enforcement mechanisms. From this point of view, it is not surprising that innovative approaches like Building or Working with Nature are recommended in the European Commission Guidelines. Such 'aspirational' arrangements usually

reflect the agenda-setting power of ambitious, well-organized private actors from 'forerunner' countries (e.g. EcoShape). At the same time, transnational non-state actors facilitate national adoptions of policy innovations practised in other countries or modelled on internationally promoted 'best practices'. This is what the World Association for Waterborne Transport Infrastructure (PIANC) does in its position paper 'Working with Nature' (PIANC, 2011). Once new approaches in environmental policy have been put into practice in 'forerunner' countries, it becomes increasingly difficult for nation-states to resist adopting the same approach without threatening their image as legitimate members of environmentally responsible global society (Tews *et al.*, 2003). The adoption of Building with Nature is also favoured by the underlying problem structure: unwanted outcomes associated with water infrastructure development in Natura 2000 estuaries and coasts – in the form of project delays and cancellations – are directly visible and widely discussed by politicians and general public.

For the reasons discussed above, Building with Nature stands a considerable chance of becoming a 'best practice' for water management in estuaries and coastal zones. The underlying assumption is that best practices are equally applicable and effective in another setting. However, as pointed out by Stead (2012), best practices are unlikely to lead to the same outcomes across different EU member states no matter how faithfully they are transferred. The applicability and effectiveness of Building with Nature transfers could increase if they take into account the Natura 2000 context. The framework offered in this chapter could be useful for doing this.

14.5 Conclusion

This chapter focused on two types of transfers within the EU: the coercive transfer of the Natura 2000 biodiversity policy and the prospective transfer of Building with Nature. Although the transfer of Natura 2000 varies across member states, the core differences can be described along the nine governance- and site-related contextual factors depicted in Figure 14.1. For policymakers evaluating the prospective transfer of Building with Nature, this representation of the Natura 2000 context could be useful for becoming aware of and adapting their transfer efforts to the Natura 2000 context in different member states. The transfer of Building with Nature is likely to be favoured by the dynamics behind the adoption of environmental 'best practices' introduced by 'forerunner' countries as well as the underlying problem structure, but its applicability and effectiveness could increase if it takes into account the Natura 2000 context.

Acknowledgement

The work presented in this chapter was carried out as part of the innovation programme Building with Nature. The Building with Nature programme is

funded from several sources including the Subsidieregeling Innovatieketen Water (SIW, Staatscourant nr. 953 and 17009), sponsored by the Dutch Ministry of Transport, Public Works and Water Management, and partner contributions from the participants in the Foundation EcoShape. The programme receives co-funding from the European Fund for Regional Development (EFRO) and the Municipality of Dordrecht.

References

- Aarninkhof, S.G.J., van Dalen, J.A., Mulder, J.P.M. and Rijks, D. (2010) *Sustainable Development of Nourished Shorelines. Innovations in Project Design and Realisation*, paper presented at PIANC MMX Congress, Liverpool.
- Arnouts, R.C.M. and Kistenkas, F.H. (2011) *Nederland op slot door Natura 2000: de discussie ontrafeld [The Netherlands locked up by Natura 2000: the discussion unravelled]*, Werkdocument 236. Wettelijke Onderzoekstaken Natuur & Milieu, Alterra, Wageningen.
- Backes, C.W., Freriks, A.A. and Nijmeijer, A.G.A. (2006) *Article 6 Habitats Directive: A comparative law study on the implementation of Article 6 Habitats Directive in some member states*, Centrum voor Omgevingsrecht en Beleid/NILOS, Utrecht.
- Bastmeijer, C.J. and Verschuuren, J.M. (2003) *Knelpunten bij de Uitvoering van de Natuurbeschermingswetgeving in Nederland [Bottlenecks in the implementation of Nature Conservation Legislation in the Netherlands]*, Eindrapport in opdracht van Ministerie van Financiën. Centrum voor Wetgevingsvraagstukken, Universiteit van Tilburg, Tilburg.
- Bastmeijer, C.J. and Verschuuren, J.M. (2004) 'Juridische Knelpunten bij de Bescherming van Natuurgebieden' [Legislative bottlenecks in the protection of nature sites], *Milieu en Recht*, vol. 31, no. 3, pp. 142–149.
- Beijen, B.A. (2010) 'De Kwaliteit van Milieuriichtlijnen. Europese Wetgeving als Oorzaak van Implementatieproblemen' [The quality of Environmental Directives. European legislation as a source of implementation problems], PhD thesis, University of Utrecht.
- Beunen, R. (2006) 'European nature conservation legislation and spatial planning: For better or for worse?' *Journal of Environmental Planning and Management*, vol. 49, no. 4, pp. 605–619.
- Beunen, R. and de Vries, J.R. (2011) 'The governance of Natura 2000 sites: The importance of initial choices in the organization of planning processes', *Journal of Environmental Planning and Management*, vol. 54, no. 8, pp. 1041–1059.
- Beunen, R., van der Knaap, W.G.M. and Biesbroek, G.R. (2009) 'Implementation and integration of EU environmental directives: Experiences from the Netherlands', *Environmental Policy and Governance*, vol. 19, no. 1, pp. 57–69.
- Bouwma, I.M., Kamphorst, D.A., Beunen, R. and van Apeldoorn, R.C. (2008) *Natura 2000 Benchmark: A comparative analysis of the discussion on Natura 2000 management issues*, Rapport 90, Wettelijke Onderzoekstaken Natuur & Milieu, Alterra, Wageningen.
- CBS (2006) Centraal Bureau voor de Statistiek. Staat van instandhouding Habitats en Soorten, online, available at: www.compendiumvoordeleefomgeving.nl, accessed 11 November 2011.

- Delta Commission (2008) *Working Together With Water: A living land builds for its future – Findings of the Deltacommissie 2008, Summary and conclusions*, Delta Commission: the Hague, online, available at: www.deltacommissie.com/doc/deltareport_summary.pdf, accessed 2 August 2012.
- Dolowitz, D.P. and Marsh, D. (1996) 'Who learns what from whom: A review of the policy transfer literature', *Political Studies*, vol. 44, no. 2, pp. 343–357.
- EcoShape (2012) 'Building with Nature', www.ecoshape.nl, accessed 12 March 2012.
- EEC (1979) Council Directive 79/409/EEC of 25 April 1979 on the Conservation of Wild Birds, *Official Journal L 103*, pp. 0001–0018.
- EEC (1992) Council Directive 92/43/EEC of 22 July 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora, *Official Journal L 206*, pp. 0007–0050.
- European Commission (2000) *Managing Natura 2000 Sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC*, Office for Official Publications of the European Communities, Luxembourg.
- European Commission (2002) *Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC*, Office for Official Publications of the European Communities, Luxembourg.
- European Commission (2007a) *Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC: Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission*, Office for Official Publications of the European Communities, Luxembourg.
- European Commission (2007b) *Guidance Document on the Strict Protection of Animal Species of Community Interest under the Habitats Directive 92/43/EEC*, Office for Official Publications of the European Communities, Luxembourg.
- European Commission (2011) *Guidelines on the Implementation of the Birds and Habitats Directives in Estuaries and Coastal Zones, with Particular Attention to Port Development and Dredging*, Office for Official Publications of the European Communities, Luxembourg.
- European Commission (2012) *Guidance on Sustainable Inland Waterway Development and Management in the context of the EU Birds and Habitats Directives*, Office for Official Publications of the European Communities, Luxembourg.
- Freriks, A. (2004) 'Gebiedsbescherming op grond van de Vogelrichtlijn en de Habitatrichtlijn: implementatie in Nederland [Site protection on the basis of the Birds and Habitats Directives: implementation in the Netherlands]', in F.C.M.A. Michiels and L. Lavrysen (eds) *Milieurecht in de lage landen*, Boom Juridische Uitgevers, Den Haag.
- Kruk, R.W., de Blust, G., Van Apeldoorn, R.C., Bouwma, I.M. and Sier, A.R.J. (2010) *Natura 2000: Information and communication on the designation and management of Natura 2000 sites*, Summary Main report 2: Organizing the management in 27 EU member states. Alterra-rapport 2044.1./INBO.R 2010.28, Alterra, Wageningen.
- Ministerie van Economische Zaken, Landbouw en Innovatie (2011) *Implementatie Natura 2000 in Nederland. Analyse naar aanleiding van het Regeerakkoord en de motie van der Staaij c.s. naar nationale koppen, rek en ruimte in de Natura 2000-implementatie*, Den Haag: Ministerie van Economische Zaken, Landbouw en Innovatie.

- Mink, F.J. (2007) *Maritime Infrastructure and Marine Coastal Zones: Issues with the Habitats Directives*, European Dredging Association Paper 06-0347, European Dredging Association, Brussels.
- Mossberger, K. and Wolman, H. (2003) 'Policy transfer as a form of prospective policy evaluation: Challenges and recommendations', *Public Administration Review*, vol. 63, no. 4, pp. 428–440.
- Natura 2000 Barometer (2010) online, available at: www.ec.europa.eu/environment/nature/natura2000/barometer/index_en.htm, accessed 11 November 2011.
- Neven, M.G.G., Kistenkas, F.H. and van Apeldoorn, R.C. (2005) *Eurosites Insights: Image, implementation, interpretation and integration of Natura 2000 in European perspective*, Alterra-rapport 12222.1, Wageningen.
- Paavola, J. (2004) 'Protected areas governance and justice: Theory and the European Union's Habitats Directive', *Environmental Sciences*, vol. 1, no. 1, pp. 59–77.
- PIANC (The World Association for Waterborne Transport Infrastructure) (2011) PIANC Position Paper 'Working with Nature', www.pianc.org/workingwithnature.php, accessed 14 March 2012.
- Radaelli, C.M. (2000) 'Policy transfer in the European Union: Institutional isomorphism as a source of legitimacy', *Governance*, vol. 13, no. 1, pp. 25–43.
- Stead, D. (2012) 'Best practices and policy transfer in spatial planning', *Planning Practice and Research*, vol. 27, no. 1, pp. 103–116.
- Tews, K., Busch, P. and Jörgens, H. (2003) 'The diffusion of new environmental policy instruments', *European Journal of Political Research*, vol. 42, no. 4, pp. 569–600.
- Van Apeldoorn, R.C., Kruk, R.W., Bouwma, I.M., Ferranti, F., de Blust, G. and Sier, A.R.J. (2010) *Natura 2000: Information and communication on the designation and management of Natura 2000 sites*, Summary Main report 1: the designation in 27 EU member states, Alterra-rapport 2043.1./INBO.R 2010.24, Alterra, Wageningen.
- van der Zouwen, M. and van Tatenhove, J.P.M. (2002) *Implementatie van Europees natuurbeleid in Nederland [The Implementation of European Nature Policy in the Netherlands]*, Planbureaustudies nr. 1, Natuurplanbureau, Wageningen.
- Van Hoorick, G. (2004) 'De implementatie van "Natura 2000" in het Vlaamse Gewest [The implementation of Natura 2000 in the Flemish region]', in F.C.M.A. Michiels and L. Lavrysen (eds) *Milieurecht in de lage landen*, Boom Juridische Uitgevers, Den Haag.
- Van Hooydonk, E. (2006) *The Impact of EU Environmental Law on Waterways and Ports*, Sixth Framework Programme Sustainable Surface Transport document M22.00.24.052.001, Maklu Press, Antwerp.
- Verschuuren, J.M. (2003) 'Nogmaals kokkels, hamsters en woelmuizen: recente ontwikkelingen rond de implementatie van de Vogel- en Habitatrichtlijn in Nederland' [Once again cockles, hamsters and voles: Recent developments concerning the implementation of the Birds and Habitats Directives in the Netherlands], *Nederlands Tijdschrift voor Europees Recht*, vol. 9, no. 1/2, pp. 34–38.
- Verschuuren, J.M. (2004) 'Implementatie milieuriichtlijnen: Nederland raakt achterop' [The implementation of environmental directives: The Netherlands is lagging behind], *Nederlands Tijdschrift voor Europees Recht*, vol. 10, no. 12, pp. 348–351.

- Viskolainen, V., Bressers, J.T.A. and Lulofs, K.R.D. (2011) 'Management aspects of Building with Nature projects in the context of EU Birds and Habitats Directives', *Environmental Engineering and Management Journal*, vol. 10, no. 11, pp. 1675–1686.
- Viskolainen, V., Bressers, J.T.A. and Lulofs, K.R.D. (2012) 'Implementing EU Natura 2000 at the project level: Lessons from the Veluwe Border lakes in the Netherlands', *Public Administration*, vol. 90, no. 4, pp. 1016–1031.
- Waterman, R.E. (2008) *Towards an Integrated Coastal Policy via Building with Nature*, Waterman, Delft.
- Waterman, R.E. (2010) 'Integrated coastal policy via Building with Nature', PhD thesis, University of Delft, the Netherlands.