



Reconciliation ecology in practice: Legal and policy considerations when implementing temporary nature on undeveloped lands in the European Union



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ARTICLE INFO

Keywords:

Nature conservation
Reconciliation ecology
EU nature directives
Temporary nature
Nature conservation
Dynamic environments

ABSTRACT

Strict regulations, such as the EU Nature Directives, remain pivotal for halting the downward spiral for some protected species. In recent years, though, it has become clear that nature protection rules, are also generating perverse incentives, especially when rigidly applied to areas that have already been transformed by human use, such as agricultural land, quarries and port sites. With the arrival of novel incentive concepts, such as temporary nature in several EU Member States, an unprecedented window of opportunity exists to reframe current nature protection rules. Temporary nature fosters private landowners, ranchers and project developers to actively participate in the recovery of endangered species, also in urban and industrial environments. In return for allowing nature to develop on their undeveloped and vacant lands, the project developers are provided with the legal guarantee that they can still subsequently develop their lands at a later stage. These newly founded conservation policies, which are increasingly endorsed by stand out as striking illustrations of the recently emerged branch of reconciliation ecology, since they aim at increasing biodiversity by opting for win-win scenarios in human-dominated landscapes. It is concluded that a more reconciliatory approach towards nature conservation, which goes beyond the ambit of protected areas, can serve as a catalyst for biodiversity recovery across the wider landscape. Further research will need to underpin whether the ambitious presumptions with regard to these well-intentioned and innovative approaches to nature conservation are justified.

1. Introduction

Restrictive environmental legislation such as European Union's Habitats and Birds Directives (Birds Directive, 2009; Habitats Directive, 1992), which protect endangered species and habitats, is widely considered as a key tool to stave off the ongoing biodiversity decline (Schoukens and Cliquet, 2016; Chapron et al., 2014; Donald et al., 2007). As is the case in other parts of the world, however, biodiversity within the European Union (EU) is suffering from a major decline over the past decades (Petrovan and Schmid, 2016; European Environment Agency, 2015). In the past few years, though, the prohibitive nature of the EU Nature Directives is being singled out by some authors as one of the main causes for the limited success of the nature protection efforts so far (Kistenkas, 2013). Whereas all too harsh criticism on the alleged rigidity of the protection rules appears to be misplaced in view of the poor enforcement of the EU Nature Directives in several Member States (Milieu Ltd. et al., 2016; López-Bao et al., 2015), the implementation of the protection rules might still yield counterproductive results in some contexts.

Especially in the EU Member States with a relatively low implementation deficit (Beunen and Duineveld, 2010), the tight application of the EU Nature Directives is giving way to perverse incentives in terms of the management of fallow plots of lands which are to be economically developed in the years to come (Schoukens, 2011). Since the accidental presence of protected species on a parcel of land is capable of effectively impeding a further economic development thereof, even when the project zone is not as such located within the boundaries of a protected Natura 2000 site (Schoukens and Bastmeijer, 2015), project developers have, understandably, grown weary of opening up their lands for nature conservation measures. At the same time, though, recent research revealed that in the Netherlands alone, an impressive 30.000–40.000 ha of land lie fallow awaiting their residential, infrastructural or industrial destination in accordance with the applicable zoning plans (Gies and Agricola, 2015). And while the necessary caution is in order when drawing precise conclusions from such 'raw figures', especially given the fact that national spatial planning policies are inevitably in flux and no concrete indications are provided about the factual reference situation *in situ*, a similar picture

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<http://dx.doi.org/10.1016/j.landusepol.2017.05.018>

Received 6 January 2017; Received in revised form 17 May 2017; Accepted 19 May 2017
Available online 08 June 2017

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emerges in other Member States, such as Belgium (Flemish Region) (Tritel et al., 2012).

Notwithstanding their location in urban or industrial zones, such undeveloped lands might be able to support indigenous biodiversity due to their structural or functional resemblance to natural ecosystems (Lundholm and Richardson, 2010). Yet precisely the fear of a future deadlock scenario when developing these sites culminated in the implementation of management practices primarily aimed at pre-emptively destroying habitat to prevent protected species from occupying it in a later stage at all cost. For instance, intensive mowing, the use of pesticides and fencing practices, directed at avoiding the establishment of valuable natural habitats and excluding protected species from land which is awaiting further development, are becoming increasingly popular amongst project developers and landowners (Schoukens, 2015; Paulich, 2010). At present no exact data are currently available to demonstrate that these bad practices go beyond anecdotal evidence. Still it remains undeniable that opening up these temporary available lands to nature might help to halt the further biodiversity loss within the EU, as demanded by the EU's 2020 biodiversity targets (European Commission, 2011a). Given the increasing importance of urban and industrial environments for the preservation of several endangered species (e.g. the Fen Orchid (*Liparis loeselii*), the Natterjack Toad (*Bufo calamita*) and the Common Tern (*Sterna hirundo*)) and ordinary biodiversity (Lundholm and Richardson, 2010), missing out on those opportunities for extra nature conservation actions because of the fear of additional land use restriction is no longer an option.

In order to foster conservation efforts on these undeveloped lands, the Dutch government started to promote an innovative and pragmatic policy approach towards temporary nature development on undeveloped lands in 2007 (Reker and Braakhekke, 2007). This novel conservation policy allows temporary habitats to autonomously develop and be used by protected species without there being a need to carry out additional compensation or mitigation measures when the lands are subsequently economically developed. At the heart of this approach is the position that future conservation actions are balanced with providing the project developers additional legal guarantees for future economic development. In doing so, such new policy approaches stand out as a remarkable example of reconciliation ecology, aimed at creating win-win scenarios for 'wandering' nature in human-dominated landscapes (Couvét and Ducarme, 2014; Rosenzweig, 2003).

An important question, however, is whether such innovative conservation policies are in line with the strict protection duties included in the EU Nature Directives, which seem to leave little room for derogations for damaging planning developments. In a first section of this article, the legal and policy context in which these more reconciliatory conservation strategies have emerged are outlined. Subsequently, the ecological and legal underpinnings of the recent policy developments, which have also been followed up in other Member States, such as Belgium (Flemish Region) and the United Kingdom (Natural England, 2016; Schoukens, 2015), are examined more in detail. In a final section, the use of temporary nature is critically assessed in light of the applicable legal standards and possible other relevant policy considerations. The potential strengths and weaknesses of the instrument are outlined.

2. Methodology

Starting from the legal texts of the EU Nature Directives and their practical implementation in project development cases, this article analyzes the most prominent scientific literature, official reports, guidance documents, a selection of the relevant administrative practices, judicial decisions and relevant academic output on the topic of temporary nature. The main purpose of this article is twofold. First, it aims to analyse the main legal and policy-related context in which the recent collaborative approaches to nature conservation, such as temporary nature development on private lands, have come to surface. Second, it

outlines and critically assesses the ecological and legal rationale of the concept of temporary nature as well as the opportunities and possible risks that are associated therewith.

The bulk of the subsequent analysis zooms in on the recently emerged policies to boost nature conservation actions on private lands that currently lack a protected status and await further development or may be subject to staged developments, such as quarries and mines. Since the Netherlands and, to a lesser extent, Belgium (Flemish Region) have to be seen as frontrunners in finding regulatory solutions to overcome deadlock scenarios (Schoukens, 2011; Woldendorp, 2009), the article's main focus will be on the regulatory practices in these two EU Member States. These practices are discussed in view of the current challenges for nature conservation law. Possible answers to some of the major deficiencies are pondered in the final section of this article. However, since some of these recent regulatory developments, aimed at a better alignment nature conservation strategies with future development plans, have been preceded by similar policy approaches in the United States (Bean et al., 2001; Kishida, 2001), concise references are also made to more collaborative policies within the context of the U.S. nature conservation laws, such as the so-called 'safe harbor agreements' (Trainor et al., 2013; Bean et al., 2001). This allows the article to take a broader approach to a situation of dynamic biodiversity in urban and/or industrial environments.

While the broader policy and ecological context in which these innovative, regulatory instruments have been drafted and developed is tackled throughout the analysis, the article's approach is essentially a legal one, in which the compatibility of these novel incentive mechanisms with the EU Nature Directives is looked into, among other things. This approach is justifiable in light of the fact that the stringent application of the applicable legal standards as to nature protection are key to understand the need for more reconciliatory approaches in the first place. The relevant rulings of the Court of Justice of the EU (CJEU, before 2009: ECJ), which is principally tasked with interpreting the EU Nature Directives and ensuring its equal application across all EU Member States, are given a prominent place in this analysis, given their major impact on the development of national practice and case-law. However, on a higher level, this paper also aims to address the major policy risks and uncertainties that are inherently tied to the use of concepts such temporary nature are outlined, even those that are located outside the strict legal sphere. As the Dutch approach to temporary nature has only recently entered into force, this paper does not aim to extensively review its concrete application in the field. Nor does it target an exhaustive review of the potential ecological shortcomings of the more lenient approaches to temporary nature.

3. Command and control: a focus on what is bad for nature?

The EU Nature Directives are widely regarded as one of the hallmarks of EU environmental law (Born et al., 2015; Wandesforde-Smith and Watts, 2014; Jones QC, 2012). In essence, both Directives require EU Member States to take measures to maintain or restore natural habitats and wild bird and animal species listed in the Annexes to the Nature Directives to a favourable conservation status. In order to achieve the main objectives of the EU Nature Directives, which have been reinforced by the 2020 EU Biodiversity Strategy (European Commission, 2011a), they lay down a set of robust protection and restoration duties. By and large, the protection schemes contained by the EU Nature Directives heavily rely on a so-called 'command and control'-approach, whereby activities that might significantly impair protected habitats or species should be principally prohibited, unless they are covered by a specific derogation.

3.1. Area protection (Natura 2000): strict scrutiny for unsustainable project developments

The 'first pillar' of the Habitats Directive requires the Member States

to conserve or, as the case may be, restore the threatened and endangered habitats and species which are listed in Annexes I and II of the Habitats Directive by the establishment of an ecological network of protected areas. Along with the Special Protection Areas (SPAs), that are already selected and designated under the Birds Directive, the Special Conservation Areas (SACs) make up the Natura 2000 Network, an EU-wide ecological network of protected sites which at present covers approximately 18% of the EU's land area.

Articles 6(3) and (4) seek to pre-empt damage being done to Natura 2000 sites or to minimize that damage. And while these articles not necessarily put a general ban on economic activities within a Natura 2000 context, the exclusive ecological focus of the substantive assessment procedures that need to be complied with considerably limits the leeway for planning authorities when issuing permits for potential harmful development in the context of a Natura 2000 site. Articles 6(3) and (4) of the Habitats Directive apply to new plans and projects liable to adversely affect the protected natural values (CJEU, 2016a), even if planned or located outside a Natura 2000 site. The competent national authorities can only authorize plans or projects if conclusive evidence is produced which showcases that they will not adversely affect the integrity of the Natura 2000 site (ECJ, 2004). As a matter of principle, unsustainable development projects will have to be rejected if they do not pass this significance test (CJEU, 2014; ECJ, 2004).

Under the derogation clause provided by Article 6(4) of the Habitats Directive, development can still go ahead, provided that there is no alternative solution, that it is necessary for imperative reasons of overriding public interest and that all compensatory measures necessary to ensure the overall coherence of the Natura 2000 Network are taken (McGillivray, 2012). In spite of the more lenient practices until now (Krämer, 2009), these three cumulative derogation conditions principally need to be interpreted in a restrictive manner (CJEU, 2016a; CJEU, 2012).

3.2. Strict species protection: restrictions beyond protected sites?

The 'second pillar' of the EU Nature Directives sets out a strict protection regime for threatened species included in Annex IV and is of even bigger importance here. This protection scheme has a wide territorial scope since it has to be applied both inside and outside areas which enjoy a protected status under EU or national law (European Commission, 2007). Also, it is more focused on the protection of individual specimens of species than on the preservation of the wider population of the said species, as is the case in the context of a protected Natura 2000 site, which might lead to even more scrutiny for new project developments (European Commission, 2007). Article 12(1) of the Habitats Directive, among others, prohibits a wide myriad of harmful activities with respect to the protected species listed in Annex VI(a). Article 12(1)(d) of the Habitats Directive also specifically prohibits the deterioration or destruction of the breeding grounds or resting places of these endangered species (Schoukens and Bastmeijer, 2015; ECJ, 2006).

In its case-law, the CJEU steadfastly highlighted the broad range of the said protection duties, pointing out that lawful land use actions, such as agriculture, forestry and recreational activities are also encompassed and, as the case may be, might be restricted if interfering with individual specimens of protected species (CJEU, 2011; ECJ, 2002). The EU judges have held that the protection rules oblige the Member States to contemplate active conservation measures, which can take the shape of species action plans and reintroduction schemes (ECJ, 2007; CJEU, 2011; Schoukens, 2014).

As is the case with Article 6(4) of the Habitats Directive, Article 16(1) of the Habitats Directive grants some margin to bypass the strict protection if the development meets a set of strict derogation conditions. However, in order to be eligible for a derogation, an harmful activity or project needs to fulfil three cumulative conditions:

- there is no satisfactory alternative;
- the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range; and
- the derogation is necessary to serve one or more of the interests exhaustively listed in the first paragraph of Article 16.

The absence of a satisfactory solution requirement is restrictively enforced at EU level. Derogations thus only should be considered as a last-resort option and cannot be presented as a one-size-fits-all solution for private development projects, which mostly do not qualify as imperative reasons of overriding public interest (Schoukens and Bastmeijer, 2015). The projects at issue must be both 'public' and 'overriding', which means that it must be of such importance that it can be weighed up against the Habitats Directive's objective of the conservation of natural habitats and wild fauna and flora. On the whole, some impairments to protected species might still be acceptable if they are related to a major infrastructure project, such as the construction of windfarms. Yet it needs to be established that no other satisfactory alternatives are in order and the necessary mitigation and/or compensation measures are implemented (Schoukens and Bastmeijer, 2015; European Commission, 2007).

3.3. Increasing criticism: deadlock scenarios and obstacle courses?

As noted above, the increasingly legalist interpretation of the protection schemes contained in the EU Nature Directives was criticized by some for giving rise to an outdated and dogmatic approach towards nature conservation, which is inapt to initiate the much-needed shift towards more nature restoration and recovery efforts on private lands (Kistenkas, 2013; Woldendorp, 2009). This criticism might be partially valid although it seems inappropriate in view of the many implementation deficits that still are noted in the context of the EU Nature Directives (Leemans, 2017; European Commission, 2016).

Moreover, denying permits for unsustainable projects is but a corollary of more stringent environmental regulations, which logically aim at halting ongoing biodiversity loss linked to new developments (Schoukens, 2017). In reality, only few plans and projects have actually been cancelled on the basis of arguments explicitly linked to the EU Nature Directives (Zijlmans and Woldendorp, 2014).

That said, it cannot be denied that a shifting and more stringent attitude towards a better enforcement of the EU Nature Directives can be detected at national level (Schoukens and Bastmeijer, 2015). Throughout the past years, the application of the EU Nature Directives in the context of economic developments was increasingly framed as an obstacle course in some Member States (Wandesforde-Smith and Watts, 2014; Jones QC, 2012). Accordingly, there might exist a legitimate cause for concern on the part of some project developers (Zijlmans and Woldendorp, 2014; Schoukens and Cliquet, 2014), especially in Member States which are characterized by a relative strict implementation of EU environmental directives, such as the Netherlands, Belgium and Germany (Woldendorp, 2009; Beunen and Duineveld, 2010).

This evolution towards more stringency is most poignantly illustrated by the national case-law developments with respect to strictly protected species. In the Netherlands, for example, a 2000 court ruling sparked mayhem among project developers by stating the potential presence of the Wild hamster (*Cricetus cricetus*) as a reason to quash several spatial planning permits for a cross-boundary industrial estate (Dutch Council of State, 2000). And while the project eventually went ahead, it still created the impression that the strict schemes of species protection were capable of causing very costly delays for project developments.

In the context of a more recent lawsuit, a local environmental NGO sued the Dutch government over its refusal to grant Natura 2000 protection to a site in the Vlissingen Port Area where a colony of protected

spoonbills had settled in the previous years. The Dutch Council of State eventually dismissed the claims, holding that since the five most suitable areas for the spoonbill in the Netherlands had already been designated, the long-term protection of the plot of land was unnecessary (Dutch Council of State, 2010). Notwithstanding the eventual positive outcome of both cases as far as development is concerned, it dawned on many Dutch business people that simply allowing nature to take over their temporary available lands might significantly hamper their future development options.

In other Member States as well, an increasing number of collisions between the protection of threatened species and economic aspirations made it to the headlines of the national press (Jones QC, 2012). In Belgium, for instance, the planning of a recreational zone was blocked since the presence of a population of Forest ants (*Formica rufa*) had not duly been taken into account throughout the planning procedure (Belgian Council of State, 2013). In the United Kingdom, the Supreme Court reasserted that planning authorities need to take into account species protection law when issuing permits (UK Supreme Court, 2011). By definition, the prospect of seeing a development project halted or even delayed for several years because of the presence of two specimens of an elusive bird species is a bitter pill to swallow, even if the delay is often partially linked to self-inflicted deficiencies in permit applications (Schoukens, 2015).

3.4. Pre-emptive habitat destruction: shoot, shovel and shut up?

As an unwelcome side-effect, the prohibitive approach of many nature conservation laws seems to punish private landowners which have species habitats on their land by restricting future development options, which could give rise to perverse incentives (Bean, 2009). It has become apparent that heightened compliance with nature protection rules might also prompt landowners to opt for defensive management in order to avoid strict regulatory scrutiny (Paulich, 2010). The first notable examples of unwanted bad management practices were noted in the context of the 1973 U.S. Endangered Species Act (ESA, 1973), which constitutes the cornerstone of nature conservation law in the U.S. Throughout the 1990s, several cases were reported in which landowners threatened to clear-cut their property in order to prevent protected species from entering the area (Bean, 2009). One of these practices is dubbed ‘midnight bulldozing’ and entails that when a landowner or developer is notified of a species’ imminent listing they destroy this species’ habitat before its listing. In order to avoid subsequent restrictions, developers may indeed be tempted to ‘shoot, shovel and shut up’, as it is called by some authors (Paulich, 2010; Kishida, 2001).

In the Netherlands, intensive mowing and pre-emptive habitat destruction have gained traction in harbor areas (Milieu Ltd. et al., 2016; Woldendorp, 2009). One of the most illustrious examples of the said practices within the EU is the technique of ‘newt fencing’, which has gained considerable traction in the United Kingdom throughout the past decades. It consists of placing a barrier to keep the Great crested newt (*Triturus cristatus*), a species strictly protected by the EU Nature Directives, out of future project sites (Natural England, 2016). In Belgium as well, a notorious illustration was offered by a 2014 ruling of a Belgian court in which the avoidance practices used by a harbor company to prevent protected sea gulls from settling on the plots of land intended for the enlargement of an industrial estate, were declared lawful since they did not directly interfere with birds that actually roosted on the sites (Court of First Instance of Bruges, 2014).

4. Temporary nature as a more collaborative instrument for nature development on private lands: refocusing on win–win scenarios?

4.1. Towards a safe harbor guarantee for both nature and business: beyond opposition?

By and large, the recent shift towards this so-called avoidance management demonstrates that regulatory tools might, at least in some instances, do exactly the opposite of what is good for the protection of biodiversity. And while not all of the currently unused or undeveloped lands might offer additional opportunities for nature conservation, at least a considerable portion might temporarily function as ‘biodiversity hubs’. For, whereas it usually takes a number of years before the spatial destination of such areas is finally realized, endangered pioneer species, such as Natterjack toads or Common terns, could in the meantime take advantage of such private land. By allowing protected species to settle on these lands private landowners might proactively contribute to the recovery of many species. In order to spur win–win scenarios in the field, a more collaborative approach has emerged aimed at rewarding private landowners for habitat conservation and restoration on their lands instead of punishing them (Paulich, 2010; Bean, 2009).

With the arrival of the so-called ‘safe harbor agreements’ in the mid-1990s in the U.S., a novel policy instrument was finally available to encourage habitat restoration and conservation amongst landowners, who do not necessarily want to develop their land in the short run but want to reserve the right to do so at a later point in time (Trainor et al., 2013; Kishida, 2001). According to the U.S. Federal Fish & Wildlife Service’s Policy document (FWS) ‘A safe harbor agreement is a voluntary agreement involving private or other non-Federal property owners whose actions contribute to the recovery of species listed as threatened or endangered under the Endangered Species Act’ (FWS, 1999).

Under a safe harbor agreement landowners who voluntarily use their property for the benefit of species will, in return, be provided with a ‘safe harbor guarantee’, implying that no additional conservation measures will be imposed on their lands, even if the number of threatened or endangered species grows as a result of the actions of the landowner. The first safe harbor agreements were concluded in the U.S. back in 1995. The Policy itself only became officially effective according to the Federal Register of June 1999 (FWS, 1999).

In exchange for additional recovery actions, the participating landowners are now able to receive formal assurances that no additional restrictions will be imposed if the number of species increases through the landowner’s actions (Bean, 2009). The landowner or farmer may, at the end of the agreement period, return the enrolled property to the baseline conditions that existed at the start of the safe harbor agreement.

4.2. Temporary nature as safe haven for pioneer and other species: stepping stones in a highly urbanized landscape?

In the past decade, more strategic and consensus-driven approaches towards mitigation also found their way in the context of planning permitting procedures in the EU. However, both national courts and the CJEU have significantly curtailed the room for manoeuvre for win–win scenarios if not implemented within the context of the strict requirements set out by the derogation clauses.

Recent case-law evolutions indeed showcase that robust restoration programs cannot be used as a free ticket to align harmful project development with the EU Directives if the sequence of the mitigation hierarchy has not been strictly complied with (CJEU, 2016b; CJEU, 2014; Schoukens and Cliquet, 2014). Yet the increased scrutiny did not hold back some Member States to produce more innovative and flexible policy approaches aimed at fostering biodiversity actions in areas that are awaiting the realization of their spatial destination.

4.2.1. Temporary nature as a solution to a bothersome legal conundrum

In order to solve the ever-recurring legal conundrum between ecology and economic development, the novel concept of ‘temporary nature’ has emerged within several EU Member States (Schoukens et al., 2010; Reker and Braakhekke, 2007). At the outset, temporary nature was ‘inadvertently’ used in the wider context of harbor management. More than 10 years ago, several spatial development strategies for harbor areas already included a concise reference to temporary nature within the planning prescriptions in the Flemish Region (Belgium) (Schoukens et al., 2010). Furthermore, some of the compensations and offsetting measures that were required for earlier harbor expansion in the Port of Antwerp have also been explicitly qualified as ‘temporary nature’, implying that they could be removed if other offset sites become available (Schoukens et al., 2010). However, the first comprehensive approach towards temporary nature outside the context of existing project developments, was ‘invented’ in the Netherlands in 2004 and first published in 2005, with the Dutch policy makers re-asserting the novel conservation technique in official policy notes in 2007 (Reker and Braakhekke, 2007). The concept of ‘temporary nature’, which bears some resemblance to the above-mentioned safe harbor agreements, explicitly targeted nature development on lands that had been set aside for future economic development (Schoukens, 2011).

In a similar manner as the safe harbor agreements in the U.S., the new policy approach grants the project developer or operator the opportunity to allow temporary habitats to develop within the future working areas, such as quarry extension zones. The basic rationale of temporary nature is to grant derogations from the requirements on strict species protection before endangered species take over the construction lands, sand heaps or the recently reclaimed lands in coastal zones or port areas in exchange for conservation benefits (Woldendorp, 2009; Woldendorp and Backes, 2007). Even so, the safe harbor agreements seem to have a wider material scope, since they also target ranchers and farmers, whereas temporary nature, as it has been developed in the Netherlands, focuses more on project developers and port authorities. The idea is that, even if the project developer or landowner is allowed to remove the species which have settled in the meantime, nature will benefit from the temporarily available spaces.

In literature the legal assurances that are provided are dubbed ‘derogation in advance’ (*ontheffing vooraf*) or ‘single act’ derogation (*éénhandelingsontheffing*). It provides the landowners with the guarantee that the future development of the site will still be able to go ahead, regardless of the possible presence of protected species in the meantime (Schoukens, 2011; Woldendorp, 2009). Such a derogation can be framed in the context of a prior agreement between a private landowner and the competent authorities or, as the case may be, included in a wider programmatic approach to nature conservation at area level, for instance in the context of a port or quarry zone (Natural England, 2016; Schoukens, 2015). Accordingly, the development and the subsequent removal of the nature are being approached as a ‘single act’, which can be the subject of one application for derogation well before the removal of the species on the enrolled lands (Reker and Braakhekke, 2007). By doing so, the costs, delays and uncertainties for the developers are significantly reduced.

4.2.2. Basic definitions and further guidelines

As noted, the Dutch government decided to publish a formal Policy document on Temporary nature in 2007, containing further practical guidelines on how to deal with temporary nature (Reker and Braakhekke, 2007). This guidance was further updated in 2015, in order to incorporate the more recent lessons drawn from the first practical application of temporary nature on the ground (Economische zaken, 2015). In other Member States as well, such as Belgium (Flemish Region) and the United Kingdom, draft proposals for new policies in order to promote temporary nature on undeveloped lands are currently circulating which are based upon similar premises (Natural England, 2016; Flemish Government, 2014).

The concept of temporary nature is further delineated in the available national guidelines regarding temporary nature. For instance, it is explicitly stipulated in the Dutch Policy document that temporary nature is to be confined to plots of land that have not been given a green destination on the applicable land use plans. Temporary nature should thus remain confined to sites, such as industrial estates, quarry sites or reclamation zones, the economic planning destination of which is still waiting to be realized or implemented (Economische zaken, 2015). Accordingly, the concept is to be excluded in the context of protected sites aimed at the conservation of permanent nature. The characteristics of the site concerned should allow temporary nature development to take place spontaneously, awaiting the implementation of the final planning destination. The explicit focus on currently undeveloped industrial lands, quarry sites or housing zones sets the concept of temporary nature, as defined in the European policy guidelines, clearly apart from the safe harbor agreements in the United States. For the latter policy also explicitly targets privately owned farms, ranches and forest lands (Kishida, 2001). As of today, however, these areas largely remain off chart in the context of the recent policies aiming at temporary nature in the EU (Schoukens, 2015). This is especially so for strict nature reserves, which are subject to very stringent regulations as to interferences in protected biodiversity.

Nevertheless, in the updated Dutch Policy document it has been reaffirmed that opening up undeveloped sites for temporary nature is also permissible in the context of Natura 2000 sites, at least as long as the protection duties enshrined in Article 6(3) of the Habitats Directive are observed throughout the permitting process (Economische zaken, 2015). This is but logical since Natura 2000 sites cannot be equated to strict nature reserves. Moreover, in many Member States large tracts of port zones are also designated as Natura 2000 (European Commission, 2011b).

In general, it is required that the applicable spatial destination of the temporary nature site in question is still waiting to be realized. Accordingly, the site concerned is only temporarily available for nature development, which preferably focuses on the settlement of pioneer species and early species (Reker and Braakhekke, 2007). Still this does not explicitly require that the baseline condition in the context of temporary nature is effectively zero in terms of biodiversity. Admittedly, one might expect this to be the case in the majority of the situations since the current policies explicitly target vacant lots of land which await the realization of their future economic destination and therefore will mostly not harbor a great deal of biodiversity. However, especially on sites which already host permanent nature, such as port areas or quarries, some biodiversity values or protected species might already be present. In such instances, the derogation granted for the future removal of temporary nature does not allow the landowner to additionally take away existing natural values since they are included in the reference scenario.

The Dutch Policy document on temporary nature also sets out several guidelines on the procedures and practicalities that need to be observed when applying the concept of temporary nature. For instance, it is stipulated that the derogation expires after ten years because Dutch land use plans can only be established ten years in advance. Most importantly, though, and in sharp contrast with the safe harbor approach in the United States, no strict nature management actions are required under the recent temporary nature policies. Although the participating landowners can obviously choose to implement certain beneficial management techniques aimed at attracting more pioneer species to the site, there is no strict legal duty to do so imposed by the applicable Dutch policy guidelines (Economische zaken, 2015). Only minor restoration or development actions are tolerated. Hence, generally speaking, nature should be able to take its own course on the site (Economische zaken, 2015). Conversely, the current draft proposal regarding temporary nature in the United Kingdom explicitly urges the participating landowners to establish a management plan (Natural England, 2016).

4.3. Ecological underpinnings

It is uncontested that new policies aimed at fostering nature conservation on private lands only make sense if they are based on sound ecological underpinnings. At first glance, though, the ecological benefits tied to concepts such as temporary nature or instruments such as safe harbor agreements appear to be counterintuitive. However, while not completely alike, both the safe harbor strategies and temporary nature policies assume that, even if the project developer or landowner is allowed to remove the species which have settled on the temporarily available lands, nature will still have benefited from the available lands for the time being. This is backed up by Dutch ecological research, which showed that in spite of temporary nature being removed when the relevant site is developed, it effectively increases the survival chances of many endangered species. Especially pioneer and early species, such as the Natterjack Toad and the Common Tern, are expected to benefit from the availability of more suitable habitats which are not managed in order to prevent protected species from settling on it in the first place (Stroming and Linnartz, 2006).

Evidently, the eventual destruction of the habitat might have a local negative impact on non-mobile species present on temporary nature sites. Yet the overall populations will afterwards never be smaller compared to a zero-scenario, where the sites would not have been opened up for temporary nature. Either way natural succession would eventually also lead to the disappearance of the pioneer and early species, which are the primary focus of the recent policies within several EU Member States, since the habitats on the undeveloped lands would eventually become less suitable for the species (Stroming and Linnartz, 2006). Moreover, far-reaching effects on vulnerable mobile species can be avoided by taking certain mitigating measures at the time of the removal. For instance, the eventual destruction of the habitat should not be carried out during the breeding season or breeding should be prevented immediately before destruction. Translocation to other more suitable areas might also be contemplated for at least some species that are less vulnerable for disturbance (Schoukens, 2015).

Most importantly, recent Belgian (Flemish) ecological research has stressed that temporary nature could be framed in the metapopulation theory (Gyselings, 2016; Vriens et al., 2013). This ecological theory underlines the importance of connectivity between seemingly isolated populations and holds that populations are composed of sub-populations with dynamic functioning, with some populations facing extinction whereas other populations increase through the colonization of new areas (Hanski, 1998). Whereas isolated populations often remain vulnerable and therefore are unable to safeguard the long-term survival of a given species, this theory holds that a combination of multiple populations, which can also include sites with temporary nature, might be able to provide a more stable equilibrium. When carefully framed within a metapopulation approach, temporary nature will thus in most cases lead to an increase of the local populations of pioneer and early species. Generally speaking, it will improve the connectivity of the metapopulation network for many vulnerable pioneer species (Vriens et al., 2013).

Yet there remains the inherent risk that temporary nature leads to a so-called ecological trap or sink. Ecological traps can be created when the attractiveness of newly created or restored habitat increases disproportionately in relation to its value for survival and reproduction. By preferring falsely attractive or poor quality habitat over existing less-attractive but more qualitative habitat, species might become more vulnerable (Battin, 2004). Evidently, such effects could also arise in the context of temporary nature, where new habitats are developing, sometimes merely because of the absence of harmful human activities (such as mowing) on sites which will eventually be economically developed. However, recent research has concluded that the risk of creating an additional ecological sink by opening up sites for temporary nature is not distinctly higher when compared with biodiversity in permanently protected sites (Gyselings, 2016; Vriens et al., 2013).

Moreover, in cases of new permanently created ‘bad habitat’, the negative effects might even be exacerbated. Still, with the right to return to the baseline conditions established, an additional sink effect could be created. In that regard, the applicable policy documents require mitigating measures to be observed whenever the plot of land is returned to its original conditions. And if there remains a substantial risk that an existing population would be redistributed from a habitat which enjoys long-term protection to a temporary habitat, the competent authorities ought simply to refrain from entering into agreements and thus reject the applications for derogation associated thereto (Schoukens, 2015; FWS, 1999).

Ultimately, the only conceivable hypothesis in which long-term negative net effects might arise is when the generic nature conservation policies fall short in setting aside a sufficient amount of valuable habitats for the species that also settle on undeveloped lands which are enrolled in temporary nature agreements (Gyselings, 2016). Indeed, one can imagine instances in which the removal of temporary nature would lead to the extinction of species that do not have other suitable patches of habitats to colonize after the removal of temporary nature. In such a situation, the metapopulation theory might not hold. Even so, under such circumstances the real cause for decline is not as such linked to the usage of safe harbor or temporary nature agreements. The lack of robust nature conservation policy, aimed at protecting and funding permanent ecological infrastructure in the long run, constitutes the root cause of the decline of the said species (Stroming and Linnartz, 2006).

4.4. Legal foundations

Merely establishing additional guidelines for nature conservation on private, undeveloped lands would have little effect if not coupled with additional measures aimed at providing additional legal certainty for the participating landowners. From a legal perspective, though, the rise of these novel policies has led to challenging questions regarding the alignment of the final removal of the protected species after the expiry of the permit and/or the agreement with the available derogation clauses.

4.4.1. Little guidance at EU level

Aligning the new policies towards temporary nature development on private lands with the preventative approach upon which the EU Nature Directives proved to be particularly challenging (Schoukens, 2011). For one, temporary nature development is not explicitly listed in the EU Nature Directives as a justification ground to deviate from the strict protection rules for species, nor is it mentioned within the context of Natura 2000 sites as a reason for derogation by Article 6(4) of the Habitats Directive.

Moreover, as demonstrated above, the room for granting derogations in the context of the EU Nature Directives is restricted to cases where the public interests linked to potentially damaging project manifestly outweigh the conservation interests linked to the protection of natural habitat and species (Schoukens and Cliquet, 2016).

Likewise, the European Commission does not cite temporary nature as a clear-cut example in its guidance documents on the EU Nature Directives, either (European Commission, 2007). Only in its 2011 Guidance on the implementation of the EU nature legislation in estuaries and coastal zones does it briefly note that ‘(t)he creation of temporary nature areas should be considered where land dedicated to port development is temporarily not used for such purpose’ (European Commission, 2011b). The Commission thereby seemed to suggest that the management and protection of such land should then be dealt with in the context of integrated management plans.

Submitting that temporary nature, because of its positive net-effects, is inherently compatible with the protection duties set out by Article 12(1) of the Habitats Directive appears to run counter to the explicit wording of the Habitats Directive. Even when temporary nature could indeed be framed within the wider objective of the Habitats

Directive, which is to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest (Article 2(1)), it still implies the protected species and their breeding sites to be destroyed in a later stage. The latter actions, even if aimed at long-term biodiversity conservation, remain principally prohibited unless a prior derogation has been obtained. In recent case-law in relation to Natura 2000, the CJEU has held that nature restoration measures, if linked to act aimed at the destruction of habitats elsewhere, cannot be tagged as ‘conservation measures’ within the framework of Article 12(1) of the Habitats Directive (CJEU, 2016b).

4.4.2. ‘Single act’-derogation

All the above helps to explain why legal research swiftly shifted focus to the derogation clauses present within the framework of the system of strict protection (Schoukens, 2011; Woldendorp and Backes, 2007). In the Netherlands, it was suggested to base the ‘single act’ derogations granted for temporary nature on Article 16(1)(a) of the Habitats Directive and Article 9(1)(a), second indent, of the Birds Directive (Woldendorp and Backes, 2007). This narrative appears particularly appealing since both derogation clauses allow the granting of derogations ‘in the interest of protecting wild flora and fauna and conserving natural habitats’. Admittedly, in its Guidance on strict species protection the Commission acknowledged that Article 16(1)(a) ‘specifies neither the types of fauna, flora or natural habitats covered nor the types of threats.’ This seemed to indicate that the provision is primarily aimed to preserve vulnerable, rare, endangered or endemic species and natural habitats against the negative predation impact of another, more common protected species (European Commission, 2007).

However, a broader use of the derogation clause is not excluded merely by the narrow interpretation line set out in a non-binding guidance document. For one, in its 2007 ruling in the Finnish Wolves case, the ECJ underlined that granting derogations under Article 16(1) of the Habitats Directive ‘remains possible by way of exception where it is duly established that they are not such as to worsen the unfavourable conservation status of those populations or to prevent their restoration at a favourable conservation status’ (ECJ, 2007). With reference to the above-mentioned ecological research, which indicates that temporary nature brings net conservation benefits for most species involved, even if it is removed eventually, both Article 16(1)(a) of the Habitats Directive and Article 9(1)(a), second indent, of the Birds Directive thus offer a firm legal foundation to reconcile the wider application of temporary nature with the strict protection schemes contained by the EU Nature Directives.

Interestingly, the legal solution that was finally opted for in the Netherlands was akin to the approach set forth in respect of the safe harbor agreements within the USA. In its 1999 Guidelines, the FWS decided to base safe harbor agreements on Section 10(a) (1) (A) of the ESA, which allows for the issuance of permits to enhance the ‘propagation or survival of affected species’ (Bean, 2009). The fact that in two distinct national jurisdictions, legal authors researching more collaborative approaches to nature conservation independently of the other have conjured up similar solutions for cases of temporary nature seems to further reinforce the persuasiveness of the above-presented rationale.

As noted above, within the Dutch policy guidelines both the development and the subsequent removal of temporary nature as a ‘single act’ can be the subject of an application for a derogation well before the removal of the nature on the enrolled lands (Reker and Braakhekke, 2007). The fundamental mechanism behind the new policy is giving project developers legal certainty as to their future right to economically develop a site. In a worst-case scenario, if the application for a derogation is rejected, landowners are still free to decide not to let nature freely develop on their site and continue to manage their lands in such a manner that it will not be colonized by new protected species. Also in other Member States, such as Belgium and the United Kingdom a similar strategy is (was) being developed (Natural England, 2016; Flemish Government, 2014).

4.4.3. Programmatic approach

The above notwithstanding, an alternative approach, which is aimed at framing the use of temporary nature within the context of a wider mitigation and compensation strategy at area level, gained traction over the past years. Instead of focusing on filing individual derogations requests for specific cases of temporary nature, a more area-oriented and comprehensive conservation policy trend aims to provide a more stable basis for the metapopulation theory underpinning of temporary nature the creation and removal is already ‘authorized’ through the adoption of an area-oriented management plan, for instance, at port level. Legally speaking, a more programmatic approach to temporary nature appears reconcilable with the framework of the derogation clause provided for by Article 16(1)(e) of the Habitats Directive (Schoukens et al., 2010).

By virtue of this enigmatically phrased provision, EU Member States are permitted to grant derogations ‘to allow, under strictly supervised conditions, on a selective basis and to a limited extent, the taking or keeping of certain specimens of the species listed in Annex IV in limited numbers specified by the competent national authorities.’ In its Guidance on strict species protection, the European Commission already suggested that management plans including the strictly limited harvesting of protected species are to be seen as a proper implementation of this derogation clause (European Commission, 2007).

Although this guidance is non-binding and the examples provided by the Commission explicitly related to the management of large carnivores, it does not appear to be excluded to ground more area-oriented approaches to temporary nature upon this derogation ground. Indeed, a programmatic approach to species protection might further solidify the metapopulation theory in the context of dynamic areas, such as port areas, by balancing the removal of temporary nature in one site with the ‘creation’ of new opportunities elsewhere in the said area (Schoukens, 2011). These guidelines were put into practice with the adoption of the 2014 species protection program for the Antwerp Port Area, in which some modest actions towards temporary nature, aimed at the recovery of the Hen harrier (*Circus cyaneus*), were included (Flemish Minister for the Environment, 2014). However, not all national or regional species protection regulations will provide for sufficient legal grounds for a more plan-based approach to project development in dynamic areas (Schoukens, 2011). In comparison with individual derogations, an area oriented approach might eventually persuade the competent authorities to opt for adaptive management in the context of dynamic biodiversity.

On the downside, though, a so-called programmatic approach is also contingent on the presence of over-arching organisational structures, such as port authorities, capable of establishing comprehensive management plans for large tracts of land in which temporary nature can be framed. For many individual landowners outside the context of harbor sites, this administrative hurdle will moreover constitute an effective impediment for considering temporary nature. In addition, assessing temporary nature within a wider area-oriented approach also entails the risk of blurring the difference between temporary nature on the one hand and mitigation and offsets, needed as compensation for the loss of permanent biodiversity on the other (Schoukens, 2014). In this respect, it is to be reiterated that the above-presented ecological research aptly demonstrated that in order to achieve beneficial net-effects, the removal temporary nature does not need to be offset.

4.4.4. First legal successes in national courts

The more pragmatic *ad hoc* approach put forward by the Dutch policy guidelines seems to provide a better pathway for accommodating the fears of project developers and landowners regarding temporary nature on the short term. The risks and burdens associated with embedding temporary nature in a programmatic approach explain its modest success for now.

Most importantly, however, the premises upon which the Dutch guidelines were grounded also gained approval from national judges

(Schoukens, 2015). The first legal proceedings on the topic of temporary nature concerned a site with unused industrial lands within the Amsterdam port area. In the said derogation, the port authority had been granted a derogation as regards temporary nature for ten years in respect of species such as the Natterjack toad and several other protected bird species. The derogation contained numerous mitigating and monitoring requirements. And while the derogation was subsequently challenged in court, the District Court of Amsterdam proved willing to accept the legal soundness of the Dutch policy guidelines in a ruling of 27 May 2011 (District Court of Amsterdam, 2011). Interestingly so, the Dutch court ruled that providing additional legal assurances in the form of a 'single act' derogation for the project developer was a necessary prerequisite in order to obtain positive net outcomes for nature. And therefore it could serve as a viable premise for temporary nature. In the absence of the possibility to apply for a derogation well in advance of the removal of temporary nature, few project developers would be found willing to let protected species settle on their lands, the Dutch judges reasoned. Likewise, the legal certainty obtained by the landowner could not be qualified as a mere economic interest. The ecological research presented by the Dutch environmental NGO to disprove the ecological benefits of temporary nature was rejected.

Furthermore, the European Commission also affirmed the legal soundness of the recent policy developments regarding temporary nature in 2014 (European Commission, 2014). When questioned about the legal foundations of the temporary nature draft policies put forward by the Flemish government, the Commission indeed indicated that, in principle, issuing 'single act' derogations in order to boost temporary nature on undeveloped lands is compatible with the objectives of the EU Nature Directives. If the assessment rules are adhered to and it is assured that the conservation goals of the site are achieved in the permanently protected core areas of the said site, temporary nature can be in line with Natura 2000 protection (Article 6(3) of the Habitats Directive) according to the European Commission. Pertaining to Article 12(1) of the Habitats Directive, the Commission reasserted that temporary nature is not inherently incompatible with the strict species protection rules. Most importantly, the Commission reaffirmed that derogations can be granted in advance for temporary nature projects on the basis of Article 16(1)(a) of the Habitats Directive. However, the Commission did not refrain from adding that such approach would only be justifiable if it could be maintained that, in the absence of such a proactive derogatory approach, project developers would indeed implement proactive avoidance measures on their lands. Whereas the viewpoint of the Commission is non-binding in itself – only a future ruling of the CJEU might offer absolute legal certainty in this respect – it still might provide additional certainty to project developers and stakeholders interest in temporary nature.

5. Discussion: strengths and weaknesses?

In recent years, the application of the collaborative policies outlined above has gained considerable traction, with at present approximately 2000 ha of lands covered by temporary nature agreements or derogations in the Netherlands and other Member States eager to implement similar policies in this respect (Stroming and Innovatienetwerk, 2015). According to the website of the Environmental Defense Fund, one of the first propagators of safe harbor agreements in the United States, more than 4 million hectares of private lands are currently under safe harbor agreements (EDF, 2015). However, in spite of the well-intentional ambitions linked to these innovative instruments, the new policies remain controversial. In countries like Germany, considerable doubts persist as to its alignment of this concept with the EU Nature Directives (Haeser, 2016).

5.1. Opportunities and chances

5.1.1. A more collaborative approach to nature conservation

Before addressing potential pitfalls and drawbacks related to the novel approaches to nature conservation on private lands, it is paramount to briefly reiterate the major benefits linked thereto. The first benefit linked to the use of temporary nature is self-evident. By taking away the fear among landowners of facing additional restrictions when opting for more favourable nature management techniques on their lands, novel policies and concepts, such as temporary nature, could open new doors for the recovery and reintroduction of endangered species on large acreages of land which traditionally remained off the chart for traditional nature management actions (Kishida, 2001). In recent literature the importance of having put into place strategies to foster nature conservation on urban and industrial sites is highlighted (Lundholm and Richardson, 2010).

Temporary nature moreover can be cited as an appropriate instrument to achieve win–win scenarios for biodiversity protection on the ground. As is mostly the case with such bottom-up approaches, landowners and project developers are better equipped to ensure more tangible effects in the field (Housein, 2002).

Within a context of temporary nature, landowners are no longer seen as the subject of protection rules, which is still often the case when designating protected sites, but rather as equal partners at the negotiation table. It remains their free choice to decide whether or not to enrol their lands under a temporary nature agreement.

Thus, private landowners are increasingly invited to enter negotiations on equal footing, which might also take away some of the fuel of the increasing opposition against nature conservation laws and lead to an increased acceptance of nature conservation policies in general (Schoukens, 2015; Bean, 1998).

5.1.2. Strengthening rather than relaxing protection schemes

Collaborative instruments such as temporary nature also allow governmental bodies to strike sensible deals with private landowners in order to enhance biodiversity within urban or industrial zones, where nature often only plays a secondary role. In times of increasing resistance against environmental protection, especially whenever it touches upon ownership rights, shifted approaches such as temporary nature can help to further enhance the legitimacy of nature conservation laws without undermining their core principles, such as the preventative approach (Schoukens, 2015).

For, in sharp contrast to other recently emerged reconciliatory offsetting instruments, such as species or conservation banking (Lapeyre et al., 2014; Reid, 2011), concepts such as temporary nature do not require development-related harm to be sustainable. Project developers enrolled in temporary nature should not resort to the usage of temporary nature in order to compensate for future loss, as is the case with offsetting schemes, but merely target an increase of endangered species' habitats, either through active measures or by letting nature recover on its own.

Whereas it is obviously not totally unthinkable that some enterprises might merely be interested in implementing these incentive mechanisms because of public relations motives, which could lead to cases of greenwashing in some instances, the use of these mechanisms should in principle not lead to further impairments to nature but rather focus on the creation of additional opportunities for nature conservation (Schoukens, 2015).

5.1.3. Permanent beneficial effects for biodiversity

While comprehensive research on the effectiveness of these novel policy approaches is lacking due to their relatively young age, recent studies indeed reveal that recently created temporary nature sites in the Netherlands appear capable of attracting many endangered species, including the Otter (*Lutra lutra*) (Landschap Overijssel et al., 2013). The first monitoring results clearly indicate that the new policies are

capable of yielding major lasting (permanent) benefits for nature.

In the scarce literature on the topic, it has also been concluded that several safe harbor agreements in the U.S. have accomplished remarkable successes in terms of restoring the populations of protected species that are mostly found on private lands. This was especially the case for the safe harbor agreement that has been developed for the Red-cockaded woodpecker (*Leuconotopicus borealis*), which apparently succeeded in promoting the dispersal of the species on private lands and enhanced overall population connectivity relative to otherwise similar territories located on lands which were not covered by safe harbor agreements (Trainor et al., 2013; Kishida, 2001). Also the safe harbor agreement aimed at the recovery of the Aplomado falcon (*Falco femoralis*) has been subject to favourable reception in the available literature. One author, concluded that the ‘the safe harbor agreement helped to restore a once vanished species to the landscape of south Texas, and it has done so without the ‘rancor and controversy that has sometimes accompanied reintroduction efforts of other species elsewhere’ (Bean, 2009). Also the first experiences with temporary nature in the Netherlands point to similar positive results (Schoukens, 2015).

5.1.4. Private funding for biodiversity conservation

It is widely known that funding shortages are seriously compromising the effectiveness of nature conservation law (European Commission, 2017). In this regard, another important benefit to be mentioned precisely relates to the funding of temporary nature. In comparison with traditional conservation instruments, such as the concept of ‘protected sites’, the habitats creation efforts aimed at pioneer species are entirely supported by private landowners. In some cases temporary nature might even be framed as a simple positive externality of an inherently damaging activity, such as mining or harbor development.

Whereas the latter finding should not lead us to negate and denounce the permanent negative effects, such as habitat destruction, caused by such economic activities, it still underlines the stark potential of temporary nature. For, if one would be willing to preserve or create ‘pioneer habitats’ in quarry sites within the realm of the traditional approaches to biodiversity protection, the designation of a nature reserve on the site appears to be the only option left. Of course one could also try to enforce the protection duties tied to existing habitats in an extensive manner. However, such liberal interpretation would almost certainly be challenged in court, whereas designating these economic areas as a protected site would prove to be very costly since it might require partial expropriation. Therefore, in times of budgetary constraints, temporary nature steps in as a relatively cheap and attractive policy instrument to achieve quick wins for endangered species.

5.1.5. Temporary nature as precursor for the development of a green infrastructure

Lastly, temporary nature also perfectly fits in with the concept of Green Infrastructure, which constitutes an essential part of the EU’s Biodiversity Strategy to 2020 (European Commission, 2011a). With the adoption of the Strategy on Green Infrastructure in 2013, Green Infrastructure is further defined as ‘a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services. It incorporates green spaces (or blue if aquatic ecosystems are concerned) and other physical features in terrestrial (including coastal) and marine areas’. On land, Green Infrastructure is also present in rural and urban settings. Especially in an urban context, temporary nature might function as important incentive to spur up conservation actions amongst project developers and business people.

5.2. Caveats and constraints

5.2.1. No 100% legal certainty

In spite of the above-presented robust legal analysis, more

traditionally minded conservationists may still seek to question the legal underpinnings of concepts such as temporary nature over the coming years. The very fact that the CJEU, the ultimate authority for interpreting EU law, has not yet expressed itself on the legality of the said incentive mechanisms, could fuel the criticism of disbelievers. It is only a decision of the CJEU that can bring full legal certainty. And since case-law evolutions are to a certain extent unpredictable, it can thus not be excluded that the above-sketches optimism might at some point be countered by more strict jurisprudential interpretation of the derogation clauses.

By some measures, recent decisions of the CJEU, in which the preventative nature of the protection rules contained in the EU Nature Directives is steadfastly reasserted (Schoukens and Cliquet, 2016; CJEU, 2016b; CJEU, 2014), indeed seem to limit the leeway for the development of more flexible premises within the context of strictly protected species and protected sites (Natura 2000). However, all these court cases explicitly concerned scenarios in which proactive mitigations strategies had been applied outside the context of the available derogation clauses, which is not the case with temporary nature. Moreover in the present context, nature is not used as an offset or compensation for future impairments to permanent nature, as was the development-related cases that led to the recent decisions of the CJEU.

In my view the legal foundations of temporary nature, if framed within the context of the above-sketches derogation clauses, remain firm. It is very unlikely that the approach will be soon overturned by a court decision. Yet regardless of the comprehensive legal research that has gone into the development of the policy strategies and the positive signs on behalf of the European Commission, a certain reluctance on the part of project developers when meddling with temporary nature is understandable. Also environmental associations, which mostly focus on creating protected areas aimed at the permanent preservation of biodiversity, might find concepts such as temporary nature particularly unsettling. In addition, neighbours of temporary nature sites could, in the absence of further communication on the temporary character of the area, perceive it as permanent nature. It is also worth bearing in mind that the successful examples of safe harbor agreements in the United States only represent a small part of the existing practice and that exact figures on the benefits of temporary nature in the EU are still lacking. Some authors even suggest that the safe harbor agreements might only be able to create permanent beneficial effects if landowners refrain from exercising their right to return to the baseline conditions (Kishida, 2001). Further research may clearly whether the underpinnings of the safe harbor agreements are also tenable in the long run.

Even so, many if not all of the persisting concerns can be addressed through additional guidance. Partly because of the presence of well-developed guidelines in countries like the Netherlands and the U.S., the legal foundations of the novel policy approaches have remained unaffected until now (Kishida, 2001). To avoid further impairments some countries, such as the Netherlands, urge the developers to observe a set of mitigation measures when removing temporary nature. In addition, effective communication strategies are to be launched in order to prevent neighbours from believing that temporary nature sites are forever. This could limit the opposition against the eventual removal of the nature when the site in question is developed.

More fundamentally speaking, an overly exclusive focus on obtaining 100% legal certainty as regards future liabilities also appears to be missing the point. Opponents of temporary nature might claim that it remains troublesome to grant issue derogations at a time when no certainty is reached on the protected species expected to be present on a site. Yet such counterarguments are not persuasive in themselves. For, one must bear in mind that undesirable (worst case) scenarios, such as instances in which species that have not been included in the granted permit unexpectedly settle on the said site, can also arise outside the specific context of temporary nature on undeveloped lands. For instance, when an operational or planning permit has been issued for a new construction based on a prior comprehensive ecological

assessment, changed environmental circumstances, such as the settlement of species that were not taken into account in the environmental reports, could still force the competent authorities to impose additional protection measures or even revoke permits on the basis of the EU Nature Directives (CJEU, 2016a). If necessary, the issued permits for temporary nature might need to be revised in view of changed environmental circumstances.

5.2.2. No alternative for robust conservation strategies aimed at permanently protected sites

Regardless of the high expectations linked to the collaborative conservation instruments discussed above, it would be wrong to assume that the success of these more collaborative policies might take away the need for more robust acquisition programs aimed at the preservation of imperilled species on permanently protected lands. Generally speaking, temporary nature is to be framed a *complement* and not as an alternative for robust nature conservation policies. The mere presence of these instruments should thus not be abused as a justification to disinvest in comprehensive nature restoration programs aimed at creation or enhancing ecological networks of protected sites (Schoukens, 2015).

Moreover, whereas concepts such as temporary nature, may create more enthusiasm among private landowners to embark on nature management aimed at pioneer habitats, the removal of potential land use restrictions will probably not be sufficient to persuade the majority of the targeted landowners to opt for more comprehensive recovery actions on their plots of land. In itself this would not be to the detriment of temporary nature, which mostly only requires halting the ongoing moving and other harmful management practices on a site. For some landowners, though, the assurances offered by such new policies will succeed in sparking nature conservation efforts on their property. Others will probably only be willing to contemplate such actions if additional financial incentives are provided (Bean, 1998). For sure, a good case might be made for providing additional financial incentives for lasting nature management measures on private lands. Yet if landowners are not under the legal obligation to implement specific management actions regarding temporary nature, which is the case in the Netherlands, such financial incentives might certainly be perceived as wholly inappropriate (Schoukens, 2015). In the Netherlands, for instance, no specific funding mechanisms are linked to temporary nature.

5.2.3. No unrealistic baselines

When implementing temporary nature, it is evidently paramount to depart from a correct reference point. In other words, the ecological baseline of the enrolled lands needs to be adequately assessed prior to the granting of the permit. Some landowners might find it tempting to set the reference scenario as low as possible, even when existing nature elements are present on the site.

By contrast, conservationists will tend to advocate a higher baseline, which better protects the existing nature in the field (Housein, 2002). Needless to say an underestimation of the populations present on the site might in some cases lead to a negative net outcome for biodiversity. It could lead to cases where *permanent* nature is destroyed with reference to a derogation granted for the removal of *temporary* nature. One must therefore warrant that the actions taken under these collaborative policies go beyond what is legally required. Obviously, this additional concern is not exclusively related to cases of temporary nature. It also plays an increasingly seminal role in the context of mitigation/offset schemes (Maron et al., 2015). That said, this risk has been already tackled through the issuance of stricter due diligence requirements in some Member States. For instance, in order to avoid future abuses of the concept of temporary nature, the Dutch Policy document obliges the landowners to produce an adequate inventory of the nature and species that are present on the site in order to allow a clear-cut baseline to be established, against which the beneficial net effects linked to temporary nature are to be measured (Economische

zaken, 2015). Along the same lines, the 1999 Policy document regarding safe harbor agreements, stresses the need to take into account population estimates among other things and focus as much as possible on the size and condition of habitat instead of the number of species present on the enrolled property (FWS, 1999).

5.2.4. No excuse for non-observance of mitigation duties

For some companies or landowners engaged in the innovative policies it might be very tempting to make double use of temporary nature areas as mitigation for future impairments to biodiversity. What is more, the first safe harbor agreements in the United States were agreed in the context of traditional large-scale mitigation programs needed to justify future impairments of protected and permanent nature (Schoukens, 2015; Bean, 1998). Likewise, the first cases of temporary nature in Belgium (Flemish Region) emerged in the context of mitigation strategies for port development projects (Schoukens, 2011).

Whereas some competent authorities might be inclined to agree with the landowner's demands to use temporary nature areas as mitigation actions for new impairments, it remains recommendable to limit the use of these new policy tools to scenarios where no immediate removal of protected species is involved. Further conflation between concepts such as mitigation and compensation, on the one hand, and temporary nature, on the other hand, is to be avoided at all cost. One should therefore explicitly point out that temporary nature is not to be used as compensation for future impairments of existing biodiversity elsewhere in a development zone (Schoukens, 2015; Bean, 1998). An often-conflated distinction between cases of temporary nature and mitigation strategies might ultimately compromise the legitimacy of the more collaborative policies towards nature conservation.

5.2.5. No free-ticket for administrative burden relief

As a last point, the administrative burden associated with instruments like temporary nature is to be addressed. Instinctively, it appears reasonable to keep the additional procedural requirements linked thereto as low as possible (Bean, 1998). Accordingly, it has been suggested that the competent authorities should avoid imposing too many monitoring and reporting requirements on the participating landowners (Schoukens, 2011).

In the Netherlands, one is even contemplating the issuance of generic derogations or exemptions for temporary nature projects, which would lead to further burden relief for participating landowners by scrapping the prior derogation procedure as a precondition for temporary nature (Stroming and Innovatienetwerk, 2015). The observance of certain codes of conduct should be effective enough to avoid further abuses. Yet while having to adhere to a complex permit system can deter landowners from opting for voluntary conservation efforts, it might still be appropriate to provide at least some form of oversight through the issuance of individual derogations or the presence of an overarching programme. Given the relatively young age of these innovative regulatory instruments and the lack of reliable data regarding the long-term effects thereof, it seems reasonable to put forward strict monitoring requirements within the context of the first generation of temporary nature areas. Moreover, general exemptions for temporary nature will, in any event, stand at odds with the individual protection requirements enshrined in the EU Nature Directives (Schoukens, 2011; Schoukens et al., 2010). These jurisprudential evolutions considerably limit the leeway for more flexible regulatory approaches in this respect. At the same time the scrutiny might serve to limit the number of 'in-authentic' applications of temporary nature to an acceptable minimum.

6. Conclusions

Strict regulations aimed at protecting and preserving natural sites and endangered species remain pivotal for halting the downward spiral for some protected species (Milieu Ltd. et al., 2016; Moreno-Mateos et al., 2015). However, as demonstrated by the plight of many

endangered species, both inside and outside the EU, a stringent regulatory framework in itself appears to be incapable of bringing many species back to a healthy conservation status, amongst others due to insufficient management, poor enforcement and a lack of additional funding (Milieu Ltd. et al., 2016; Leverington et al., 2010). With the arrival of novel incentive mechanisms, such as temporary nature, an unprecedented window of opportunity is created to reframe current nature protection rules so as to convince private landowners, ranchers and project developers to actively participate in the attempts to recover the most endangered and threatened species, also in urban and industrial environments. In light of the dire situation of biodiversity in the EU (European Environment Agency, 2015), such collaborative instruments stand out as striking illustrations of the recently emerged branch of reconciliation ecology since they aim at fostering nature conservation in human-dominated landscapes (Lundholm and Richardson, 2010; Rosenzweig, 2003).

While the conservation of 'ordinary' biodiversity is often not the primary objective of many nature conservation laws, such as the EU Nature Directives (European Commission, 2015), a more reconciliatory approach towards nature conservation and green infrastructure, which goes beyond the ambit of protected areas (Mora and Sale, 2011), might also serve as a useful catalyst for biodiversity recovery across the wider landscape (European Commission, 2013). Even so, this paper has highlighted that several caveats are in order when implementing concepts such as temporary nature in the context of national nature policies.

First, a robust legal framework needs to be put in place in order to accommodate the fears of landowners when opening up their sites for the temporary settlement of protected species. Temporary nature could be authorized through the use of 'single act' derogations or, if possible, framed within a programmatic approach. Second, it should be ensured that realistic baselines are used when granting derogation for temporary nature, amongst others to avoid that the concept is 'abused' as cover-up for existing conservation duties or, alternatively, as offset for future impairments to permanently protected nature. Third, while temporary nature might function as additional tool for the preservation and even restoration of certain endangered species, it should never be presented as an alternative for conservation strategies aimed at setting aside strictly protected areas in which endangered species are protected on a permanent basis.

Further research will need to underpin whether the ambitious presumptions with regard to these well-intentioned and innovative approaches to nature conservation are justified. New regulations and guidelines could provide more legal certainty for the landowners and project developers involved and limit the risks of abuse. However, when carefully implemented and shaped, these more novel policy tools have the potential of creating interesting new opportunities for averting or reversing further extinction scenarios for several endangered species, not as an alternative but rather as a complement for the existing protection schemes.

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