

## PART III

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Designing a rule of law for nature:  
new dimensions and ideas

PROOF

## Ecological proportionality – an emerging principle of law for nature?

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### 1. Introduction

Approaches to give nature a more important place within the law governing human societies have often constructed nature to have subjective rights in relation to human beings. An outstanding example is the vision to acknowledge nature to have a right of standing in court proceedings,<sup>1</sup> another the construct of a *contrat naturel* that shall complement the *contrat social*.<sup>2</sup> The difficulty of these suggestions is that while in the real world the weighing of conflicting rights and the striking of deals is necessary, the concept of subjective rights does not provide guidance on how to do this. On the other hand, sustainable development is much en vogue as an objective (i.e. not rights-based) principle to promote the role of the protection of nature. However, the principle has widely been rendered toothless, because it was understood as enabling any balancing of economic, social and natural concerns, which mostly comes out favouring economic interests.<sup>3</sup> Another objective concept is the analysis of economic costs and environmental benefits of environmental policies.<sup>4</sup> But insofar as the concept insists on using common denominators, its method of monetarization of qualitative values has not been convincing, and if it contents itself with qualitative balancing, it is once again without criteria for how to reach acceptable results. My suggestion is to try proportionality

<sup>1</sup> See C. Stone, *Should Trees Have Standing? Law, Morality, and the Environment*, 3rd edn (Oxford University Press, 2010).

<sup>2</sup> M. Serres, *Le Contrat Naturel* (Paris: Flammarion, 1992).

<sup>3</sup> See G. Winter, 'A Fundament and Two Pillars: The Concept of Sustainable Development 20 Years after the Brundtland Report', in H. C. Bugge and C. Voigt (eds.), *Sustainable Development in International and National Law* (Groningen: Europa Law Publishing, 2008), 25–45, at 26ff.

<sup>4</sup> For an overview of the state of the art see B. C. Field and K. C. Field, *Environmental Economics*, 5th edn (New York: McGraw-Hill, 2009), 44ff., 118ff., 137ff.

as a principle promoting the role of nature in law and providing adequate criteria of balancing. This principle has emerged as a quite sophisticated means of restriction of power within human society. I suggest also using it as a means of restriction of power of man over nature.

## 2. From sociological to ecological proportionality

### 2.1 *The tradition of proportionality*

Proportionality is a widely accepted principle of the rule of law. It was developed to structure relationships between governmental power and the citizen and was designed to ensure that public power when intruding into the rights of citizens in pursuit of public interests shall do so only under certain preconditions. These are the following:

- the objective pursued by the government shall be justifiable (1);
- the measure taken shall be
  - effective, i.e. capable of serving the public interest (2),
  - necessary, i.e. not replaceable by an alternative that is equally effective but less intrusive on individual rights (3), and
  - balanced, i.e. not excessively intrusive on individual rights in view of the importance of the public interest (4).

The principle can be represented as indicated in Figure 6.1. The arrows indicate that the measure taken will in one way or other cut across individual rights when aiming at an objective. The dotted arrow, representing alternative B, would be more burdensome than alternative A and is therefore to be rejected.

Proportionality (*Verhältnismäßigkeit*) has diverse legal-cultural origins of which the German has possibly been the most influential. In Germany the principle originated in the police law of the nineteenth century when courts developed the doctrine that the police, when taking measures to securing public order, are not allowed to interfere with individual rights more than maintaining public order necessitates.<sup>5</sup> This implied two tests: that the least intrusive measure must be chosen, and that the measure may not be out of proportion with the problem to be solved. Gradually, the principle became more differentiated and was developed into a general check of discretionary administrative action

<sup>5</sup> V. Götz, *Allgemeines Polizei- und Ordnungsrecht*, 11th edn (Göttingen: Vandenhoeck & Ruprecht, 1993), 130ff.

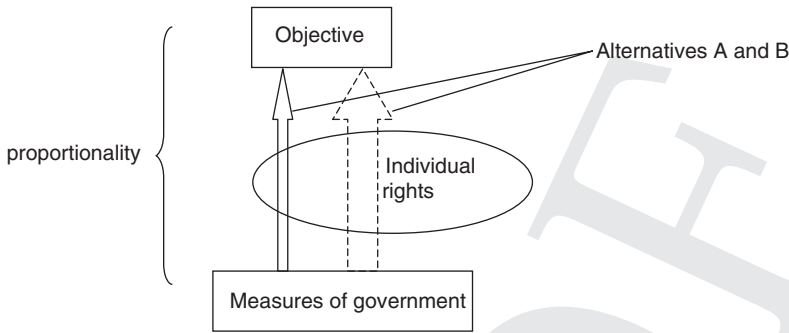


Figure 6.1 The traditional proportionality principle

and even into a constitutional principle controlling the legislature when a law was to intervene into basic rights.<sup>6</sup> In French administrative law a similar development took place, although more attached to sectoral administrative law.<sup>7</sup>

The foundation in both the German and French legal systems eased the way of proportionality to the European level. There it could also be married with the principle of reasonableness that stems from English common law as a standard of checking administrative discretion, but which is more procedural and less systematic than the proportionality test.<sup>8</sup> The European Court of Justice (ECJ) adopted it in its early jurisprudence on European basic rights as a means to restrict encroachments that are in principle legitimate,<sup>9</sup> applied it to the fine-tuning of Member State restrictions of the EC/EU basic freedoms and also subjected to it

<sup>6</sup> P. Lerche, *Übermaß und Verfassungsrecht. Zur Bindung des Gesetzgebers an die Grundsätze der Verhältnismäßigkeit und Erforderlichkeit* (Cologne: C. Heymanns Verlag, 1961), 29ff.

<sup>7</sup> Police law provided the learning field for the least intrusion test and expropriation law, that of the weighing of private and public interests, called *bilan coût-avantages*. See G. Dupuis, M.-J. Guédon and P. Crétien, *Droit Administratif*, 12th edn (Paris: Dalloz, 2011), 841.

<sup>8</sup> H. W. R. Wade, *Administrative Law*, 5th edn (Oxford: Clarendon Press, 1982), Chapter 12. It has been suggested that proportionality should also be adopted as a common law principle: see C. Harlow and R. Rawlings, *Law and Administration* (Cambridge University Press, 1997, reprinted 2006), 118, citing J. Jowell and A. Lester, 'Proportionality: Neither Novel nor Dangerous', in J. Jowell and D. Oliver (eds.), *New Directions in Judicial Review* (London: Stevens, 1988).

<sup>9</sup> ECJ judgment of 17 December 1970, Case 11/70 (*Internationale Handelsgesellschaft*), paragraphs 12 and 14.

any discretionary administrative decisions of the European organs, and in particular of the Commission.<sup>10</sup>

Thus, proportionality has become a wide-ranging principle of domesticating governmental powers when encroaching on individual rights or competence realms of lower ranged governance levels.

## 2.2 *Suggesting an analogy*

What I wish to suggest is that the principle should not only be applied to governmental activities that intrude on citizens' rights but also to those citizens' activities that intrude on nature. This analogy is justifiable because the two areas of application have a common denominator, that is the limitation of power. In the first case it is state power over society (or the collective over the individuals) that must be tamed; in the second it is societal power over nature that must be tamed. Proportionality in the second sense would be a requirement of justifying uses of nature by society. "Society" would include individual persons and enterprises, but also governmental bodies in their capacity not as regulators but as direct users of nature.

For the sake of clear terminology I shall refer to the two kinds of proportionality as sociological and ecological. While sociological proportionality (or in short socio-proportionality) shall primarily protect basic rights of citizens against governmental intrusions, ecological proportionality (or eco-proportionality) shall protect nature against intrusions by society (including nature-consuming governments) (see Figure 6.2).

The reason for this new targeting of the principle is the increasing scarcity of natural resources that are available for modern societies, be it biodiversity, water, clean air or a liveable climate. The implication is that societal actors are not primarily constructed as right holders but rather as bearers of obligations (although this does not exclude rights-based action against those who do not fulfil their obligations). The crucial point is thus that human society is required to justify its interests in view of nature. Nature is no longer the "environment" of mankind, which is protected by physically limiting human encroachments. Rather it is a resource that must be spared unless there is good reason to consume it.

<sup>10</sup> While the principle has been developed for situations where basic rights of individuals are encroached upon, it has been extended to check intrusions by higher governance levels into competence realms of lower levels. See e.g. Art. 5 (4) Treaty on the Functioning of the European Union (TFEU) where it functions as part of the subsidiarity principle. It even figures as a self-standing general principle of checking EU powers.

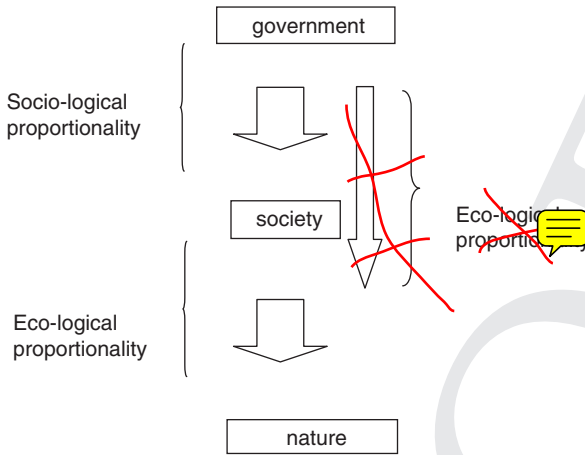


Figure 6.2 Two versions of proportionality

### 2.3 Designing ecological proportionality

Eco-proportionality would entail the following fourfold test: If an activity encroaches on natural resources:

- the actor must pursue a justifiable societal objective (1); and
- the activity shall prospectively be
  - effective, i.e. capable of serving the objective (2);
  - necessary, i.e. not replaceable by an alternative that is less intrusive on natural resources (3); and
  - balanced, i.e. not excessively intrusive on natural resources in view of the importance of the societal objective (4).

The principle can be represented as set out in Figure 6.3.

In more detail an ambitious version of the test would require the following four demands:

1. While in socio-proportionality the objective pursued by the individual is conceived as free choice, it is now subjected to a duty to give reasons. This is a veritable skandalon of the concept, but it is understandable in view of the ever growing scarcity of natural resources. It is not justifiable, for instance, to use agricultural products for biofuel where they are needed for human consumption, or to capture rare animals for keeping them as pets. Unlawful uses are also not justifiable.

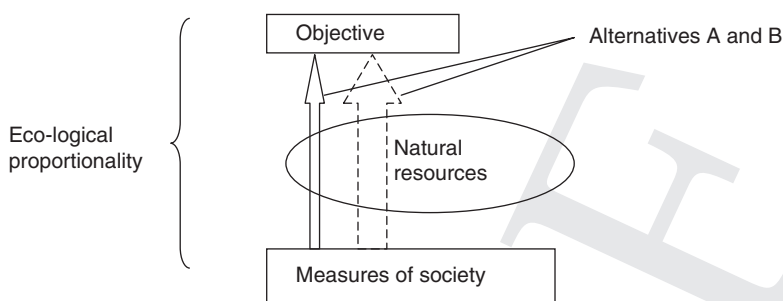


Figure 6.3 Eco-proportionality

2. If an objective is justifiable, the means taken should be fit to serve it. For instance, if a dam for hydropower generation is to be built, it needs to be proved that the river will feed sufficient water into the reservoir.
3. The most important element of eco-proportionality is the testing of alternative means. The alternative that causes the least adverse effects on natural resources should be preferred. However, as not all alternatives will serve the objective in exactly the same way, some deviation from the full realization of the objective should be accepted.
4. Assuming an objective is justified and the means is also as effective as necessary, then the means should nevertheless be rejected if its adverse effects on nature are excessive if weighed against the importance of the goal. For instance, if the extension of a highway can only be done by crossing a nature reserve due to geographical factors, but this would increase its transportation capacity by only 5 per cent, the adverse effect may be found excessive in relation to the objective.

Admittedly, it is overly ambitious to suggest introducing this scheme for all areas of utilization of scarce natural resources. It would, however, be a great step forward if at least the consideration of alternatives became a general requirement, even if the objective of an activity remained completely at the actor's discretion. The range of concretization of the two most important elements – a reasonable objective and the test of alternatives – shall be further explained.

As for the requirement of a reasonable objective, the range of possible justification reaches from personal pleasure and economic profit to the use value of a product or service up to a public interest. A public interest would have to be required, when it is unavoidable that highly valuable environmental assets are sacrificed for the objective, such as if a



rare natural habitat is destroyed for the sake of a better transportation infrastructure. The more serious the damage or risk of damage, the more weighty the benefit must be if the adverse effect is to be accepted. As the objective is an appropriate guide for determining the scope of alternatives that should be considered, it should be noted that the more the objective is formulated in general terms, the broader the scope of alternatives becomes. For instance, if the objective is defined to facilitate transportation between two agglomerations, roads and railways are two options to be considered. If the definition is less generally defined to facilitate individual transportation, only different kinds and lines of roads would be included. Finally, if the objective is very specifically determined so that a six-lane highway is to be built in a precisely delimited corridor, only small geographical deviations can be discussed. An appropriate arrangement would be for the decisions in the first and second cases to be taken at a higher and lower administrative level, respectively, while the third case should not be accepted at all for not adequately distinguishing between goals and means.

Concerning the role of alternatives, the choice of options can be left subjectively to the developer, or it can follow from objective criteria. For instance, Directive 2011/92/EU on environmental impact assessment of projects confines the test to “the main alternatives studied by the developer”.<sup>11</sup> By contrast, Directive 2001/42 on environmental impact assessment of plans speaks of “reasonable alternatives”.<sup>12</sup> This objective language is less inclined to misuse by developers. As for the scope of alternatives that are to be checked, as already mentioned the (private or public) objective of the use of nature should serve as a criterion. In addition, it must be clarified if measures compensating any damage caused by an alternative are to be counted as reducing its negative impact. This should depend on the kind of natural resource at stake. For instance, the removal of living resources may be treated differently from chemical pollution, because the damage can be made good more easily in the first than in the second case. A last problem is related to the fact that alternatives may differ in their degree of attaining the objective, and they may involve different financial costs. For instance, the tunnelling of a biotope is of course more

<sup>11</sup> Directive 2011/92/EU of the European Parliament and of the Council on the assessment of the effects of certain public and private projects on the environment, OJ 2012 L 26/1, Annex IV Sec. 2.

<sup>12</sup> Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, OJ 2011 L 197/30, Art. 5(1).

costly than cross-cutting on the surface. It appears that such questions of goal attainment and financial side-effects must be solved by appropriate weighing of interests. Significant costs and curtailment of objectives may be a reason for accepting an alternative that is second best in environmental terms.

### 3. Legal status

The examples given already indicate that ecological proportionality is not alien to legal codification. Nonetheless, the principle should first of all be conceived as a social norm, not as a legal norm.<sup>13</sup> More than socio-proportionality, which encourages acting egoistically unless the state sets limits, eco-proportionality is particularly appropriate for adoption as a social norm because it explicitly aims at a societal self-commitment on how society should utilize natural resources. In addition, it may also be framed as a requirement of state-based law.

We will explore in the following to what extent the principle has already entered the realm of both social and legal norms.

#### 3.1 A social norm

In respect of social norms we will ask if individuals, enterprises and governmental bodies, when utilizing natural resources, reflect on whether the activity serves a justifiable objective, whether the objective can be reached by less intrusive means and whether the residual encroachment is outweighed by the importance of the objective.

In the social world proportionality has indeed spread widely in what is called environmental consumption. For instance, more and more consumers compare products and services not only in terms of price and functionality but also in terms of environmental impact of their manufacture, operation and disposal. Not only are least intrusive alternatives considered, but even the objectives of consumption are put into question. The use of bicycles is one example: in comparison with the car, in many situations the bicycle is not only the less intrusive alternative but also a

<sup>13</sup> On the emergence and role of social norms ('conventions') as distinct from legal norms, see as a classical text Max Weber, *Rechtssoziologie*, J. Winckelmann (ed.) (Neuwied: Luchterhand, 1960), 63ff. For a rich empirical study on 'folkways', see W. G. Sumner, *Folkways. A Study of the Sociological Importance of Usages, Manners, Customs, Mores and Morals* (New York: Ginn and Company, 1906).

better justifiable objective because it is faster in inner cities and healthier for the rider.

In the economic world, codes of conduct of enterprises and enterprise networks sometimes contain recommendations reflecting elements of ecological proportionality.<sup>14</sup> While many multinational corporations only commit themselves to vague goals of sustainable economic behaviour,<sup>15</sup> there are others that strive for minimization of environmental impact and are even prepared to reflect on the benefits of their products. For instance, the Swiss chemical company Novartis ~~country~~ the following among its principles of its 'Policy on Corporate Citizenship' concerning health, safety and environmental (HSE) performance:<sup>16</sup>

We strive to make efficient use of natural resources and minimize the environmental impacts of our activities and our products over their life cycle. We assess HSE implications to ensure that the benefits of new products, processes and technologies outweigh remaining risks.

The minimization clause can be seen as a testing of alternatives and the efficiency requirement as a form of effectiveness test. Most significantly the corporation is prepared to weigh the benefits of the products with the remaining environmental risks.

A more modest example can be found in the Organisation for Economic Co-Operation (OECD) guidelines on multinationals. Although they derive from a state-based international organization, they can be regarded

<sup>14</sup> Industrial self-regulation has since long introduced technical standards, domestically and regionally (H. Schepel, *The Constitution of Private Governance. Product Standards of Integrating Markets* (Oxford: Hart Publishing, 2005), 101–76) and more recently also globally (O. Dilling, 'Proactive Compliance? Repercussions of National Regulation in Standards of Transnational Business Networks', in O. Dilling, M. Herberg and G. Winter (eds.), *Responsible Business. Self-Governance and Law in Transnational Economic Transactions* (Oxford: Hart Publishing, 2008), 96–8). Such standards (as well as more ambitious schemes such as Standard 14000 of the International Organization for Standardization (ISO) on environmental management are elements of an emerging environmental law of the firm. Eco-proportionality would go beyond this because it demands putting production goals into question and searching for product alternatives.

<sup>15</sup> See for instance the websites of the multinational chemicals corporations BASF and Bayer.

<sup>16</sup> This wording appeared until March 2013 on the Novartis website, but has since been replaced by a less ambitious formula that focusses on emission reduction, leaving out the balancing of benefits from products with environmental costs. See <http://www.novartis.com/corporate-responsibility/responsible-business-practices/protecting-the-environment/index.shtml> (last visited 24 June 2013).

as a self-commitment standard shared by progressive industries. They posit among other things:<sup>17</sup>

[Enterprises should:]

6. Continually seek to improve corporate environmental performance, at the level of the enterprise and, where appropriate, of its supply chain, by encouraging such activities as:

- (a) adoption of technologies and operating procedures in all parts of the enterprise that reflect standards concerning environmental performance in the best performing part of the enterprise;
- (b) development and provision of products or services that have no undue environmental impacts; are safe in their intended use; reduce greenhouse gas emissions; are efficient in their consumption of energy and natural resources; can be reused, recycled, or disposed of safely.

The guidelines claim that technologies should reflect the standards that have no undue environmental impacts; are safe in their intended use; reduce greenhouse gas emissions; and are efficient in their consumption up to the standard of the best performing factory of the entire concern. Although this does not yet entail a comparison with the best technologies worldwide, it does trigger the consideration of alternatives and the orientation towards the multinational's obligation to reach best standards. Likewise, when choosing the kind of product or service provided, the enterprise should respect quite ambitious yardsticks such as 'no undue environmental impacts', safe use, greenhouse gas reduction, energy and resource efficiency, and the reuse, recycling and safe disposal of waste.

Of course, such guidelines are recommendations and self-commitments, not binding rules, and they are framed in adhortative, not in obliging language. They are nevertheless examples of social norms. The more they are concrete and supported by organizational infrastructure such as specialized environmental officers, reporting commitments, management plans, internal auditing mechanisms and so on, the more they will be considered as self-obligatory.<sup>18</sup>

<sup>17</sup> OECD (2011), *OECD Guidelines for Multinational Enterprises*, OECD Publishing, Chapter VI No. 6, available at: <http://dx.doi.org/10.1787/9789264115415-en> (last visited 5 June 2013).

<sup>18</sup> M. Herberg, 'Global Legal Pluralism and Interlegality: Environmental Self-Regulation in Multinational Enterprises as Global Law-Making', in O. Dilling, M. Herberg and G. Winter (eds.), *Responsible Business. Self-Governance and Law in Transnational Economic Transactions* (Oxford: Hart Publishing, 2008), 30–2.

### 3.2 *A legal norm*

In conclusion, the principle of eco-proportionality is indeed emerging as a social norm. It is important as a source of societal self-regulation, especially in those areas where the law has not yet intervened. Eco-proportionality is, however, also suitable as the content of state-based binding legislation. Of course, state-based legislation can also formulate basic rules that society should respect when utilizing natural resources. In fact, given the present-day urgent need for bolder steps towards environmental protection, it may serve as an appropriate instrument for guiding society towards showing better respect for nature. This is all the more so if it can be shown that the principle is not entirely new but can already be traced in some legal contexts. Examples given before as well as additional ones may show that this is indeed the case. They concentrate on the EU and Germany as far as national or regional cases are concerned, but also include cases of international agreement.

One elaborate example is a set of criteria established for the protection of the European Network of Protected Areas called Natura 2000. If a project that causes significant adverse effects on a Natura 2000 site is to be realized, it can exceptionally be authorized if there are no alternative solutions that have no or fewer adverse effects and the adverse effects are outweighed by an overriding public interest. In such a case compensatory measures shall be taken that reduce the impact (Art. 6(4)(1) Directive 1992/43/EC). The provision reads:

If, in spite of a negative assessment of the implications for the site and in the *absence of alternative solutions*, a plan or project must nevertheless be carried out for imperative reasons of *overriding public interest*, including those of a social or economic nature, the Member State shall take all *compensatory measures* necessary to ensure that the overall coherence of Natura 2000 is protected [emphasis added].

A similarly sophisticated example is provided by the German Federal Nature Protection Law (Bundesnaturschutzgesetz, BNatSchG).<sup>19</sup> Section 15 BNatSchG establishes that whenever a project causes a significant alteration of nature and landscape (*Eingriff in Natur und Landschaft*), the following criteria must be fulfilled. First, it has to be assessed whether any adverse effects of the project can be avoided. Here, project variants

<sup>19</sup> Section 15 Federal Act on Nature Protection (Bundesnaturschutzgesetz – BNatSchG).

are sought that intrude less into nature.<sup>20</sup> As a second step, any adverse effects that are found to be unavoidable must be compensated for either by remediation near to the spot (*Ausgleichsmaßnahme*) or by restitution, possibly further away (*Ersatzmaßnahme*). As a third step, the remaining damage must be weighed against the importance of the project; if it is weightier than the project, the latter is impermissible. If it is less grave, some monetary compensation must be paid.

Further examples are given below in summary versions. A short comment in square brackets indicates which elements of eco-proportionality are represented.

- A derogation from the obligations to protect endangered bird species is permissible for reasons of interests of public health and safety, air safety and prevention of serious damage to crops, 'where there is no other satisfactory solution' (Art. 9 Directive 2009/147/EC) [objective to be justified, alternatives to be tested].
- Member States may derogate from the obligation to ensure good surface water quality if the environmental and socio-economic needs served by water uses cannot be achieved by a significantly better environmental option not entailing disproportionate costs (Art. 4 (5) Directive 2000/60/EC) [alternatives to be tested, objective to be considered].
- New plant protection products that contain certain immanently dangerous substances may not be approved if for the envisaged uses an authorized plant protection product, or a non-chemical control or prevention method, already exists that is safer for the environment (Art. 50(1)(a) Regulation (EC) 1107/09) [alternatives to be tested].
- The production and marketing of certain immanently dangerous chemicals can only be authorized if either their health or environmental risk is adequately controlled or outweighed by socio-economic benefits and if there are no suitable alternative substances or technologies (see Art. 60 (2) t. 60 Regulation (EC) 1907/06) [alternatives to be tested, solution to be weighed against objective].
- An environmental impact assessment (EIA) must show what alternatives to the proposed project were tested and why they were rejected (Art. 5 (3) Directive 85/337/EEC, as amended; Art. 5 Directive 2001/42/EC) [alternatives to be tested].

<sup>20</sup> The project can, however, not be put into question *in toto* at this stage, and the scope of alternatives is confined to those at the same location.

- An operator of a dangerous installation must apply best available techniques, which are defined to be techniques aiming at environmental protection that are most effective, advanced and practically suitable, but also economically viable and considering the costs and advantages (Art. 2 no. 10 Directive 2010/75/EU) [alternatives to be tested; costs to be weighed against environmental advantages].

A number of international agreements have also adopted elements of the eco-proportionality principle.

- According to the Convention on Persistent Organic Pollutants (POPs), 'when considering proposals to construct new facilities or significantly modify existing facilities using processes that release chemicals listed in this Annex, priority consideration should be given to alternative processes, techniques or practices that have similar usefulness but which avoid the formation and release of such chemicals' [alternatives to be tested].
- The Convention on Environmental Impact Assessment in a Transboundary Context provides that the EIA contains 'a description, where appropriate, of reasonable alternatives (for example, locational or technological) to the proposed activity and also the no-action alternative'<sup>21</sup> [alternatives to be tested].
- According to the Protocol on Strategic Environmental Assessment (SEA), the environmental report shall 'identify, describe and evaluate the likely significant environmental, including health, effects of implementing the plan or programme and its reasonable alternatives'<sup>22</sup> [alternatives to be tested].
- The Convention for the Protection of the Ozone Layer suggests an exchange between contracting parties of technical information on:
  - The availability and cost of chemical substitutes and of alternative technologies to reduce the emissions of ozone-modifying substances and related planned and ongoing research;
  - The limitations and any risks involved in using chemical or other substitutes and alternative technologies, as well as socio-economic

<sup>21</sup> Espoo Convention on Environmental Impact Assessment in a Transboundary Context of 1991, Art. 4 with Appendix II (b).

<sup>22</sup> Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context of 2003, Art. 7(2). Disappointingly, a survey of strategic environmental reports in Germany showed that alternatives were considered only in a third of all cases. See R. Wulfhorst, 'Die Untersuchung von Alternativen im Rahmen der Strategischen Umweltprüfung', *NVwZ* (2011), 1099.



information on, among others, ‘The costs, risks and benefits of human activities which may indirectly modify the ozone layer and of the impacts of regulatory actions taken or being considered to control these activities’<sup>23</sup> [alternatives to be tested, objective (‘benefits’) to be considered].

In conclusion, it appears that eco-proportionality has been adopted by a number of national, EU and international legal acts in different forms, and sometimes in a rather comprehensive version. There seems to be some rationale behind the choice of design. It appears that the more ambitious the test, the greater the value the concerned natural resource is considered to have, or the more serious the adverse effect. Thus, the particularly strict version of Natura 2000 is explained by the rarity status of the protected resources. By contrast, the lenient version required for an EIA may follow from the fact that the EIA covers many effects and the environment as a whole, not just particularly serious effects or particularly endangered resources.

### 3.3 *Social and legal norms combined*

Often the law does not conclusively regulate a problem. In such cases the principle of eco-proportionality may instead guide actors as a social norm that complements the legal norm. Three situations may be highlighted in which such complementary function is most promising: when the law is widely absent, structurally unambitious or rather vague.

#### 3.3.1 *Unregulated areas*

Multinational enterprises often invest in countries that do not operate adequate environmental standards. According to customary international law, their rules of their home country do not apply in the foreign country.<sup>24</sup> As already indicated, these enterprises nevertheless sometimes do not exploit this regulatory gap, but strive for some kind of self-regulation. If they go further than the applicable law requires, this is often motivated by economic calculus such as the image of their product in consumer countries or economies of scale for pollution abatement technology. However, the ambition could also be based on respect for nature and a sense of need

<sup>23</sup> Vienna Convention for the Protection of the Ozone Layer of 1985, Annex II Nos. 4 and 5.

<sup>24</sup> P. Birnie, A. Boyle and C. Redgwell, *International Law and the Environment*, 3rd edn (Oxford University Press, 2009), 788.



to justify its utilization. Eco-proportionality as a social norm would suggest itself as a principle in that situation, at least in the form of alternatives testing. The OECD guidelines have already been cited as an example that could be further elaborated.

### 3.3.2 Undercutting thresholds

Environmental standards setting quality objectives for air, water, soil, biodiversity and so on are often based on insufficient knowledge about the appropriate protective level. As a safety device, some regulations such as that on dangerous installations require the application of best available techniques even if the environmental standard is not exceeded.<sup>25</sup> But in other areas such requirement does not apply. In the emissions trading concept in climate protection law it is even rejected. Although the capping of emissions in the Kyoto Protocol system has obviously been too lenient, emitters are nevertheless not required to do more by using best emission reduction techniques, but are allowed and even stimulated to sell non-used allowances derived from the fixed quota.<sup>26</sup> Eco-proportionality would provide a ground for going further out of respect for nature.

Eco-proportionality could also provide a foundation for the precautionary principle. While precaution is constructed to mean that most thresholds rest on uncertain knowledge, the fact is that threshold-setting is a political struggle between economic and ecological interests that often disregards scientific knowledge. Precaution is therefore a fall-back position of those who lost the game. Resting it on the presumption for nature would at least acknowledge that precaution is a matter of politics rather than of cognition. The requirement that best available technologies must be applied is then a yardstick, not to cope with uncertainty but to pay tribute to the growing scarcity of natural resources. It would suggest that natural resources should not be consumed if the consumption can be avoided.

### 3.3.3 References by formal law

Sometimes the law explicitly refers to social norms. This is true, for instance, for the standard of due diligence in tort law, duties of care in environmental law, good practices in the law of agriculture and so on. In

<sup>25</sup> See section 3.2 above.

<sup>26</sup> For this observation see in more detail G. Winter, 'The Climate Is No Commodity: Taking Stock of the Emissions Trading System', 22:2 *Journal of Environmental Law* (2010), 1–25, at 16.

such cases eco-proportionality can serve as guidance for adopting more elaborate rules.

Often the law is not explicitly referring to social norms but implicitly relies on them because the problem at stake escapes precise regulation. For instance, living natural resources such as plants, animals and their ecosystems have the capacity of reproduction and recovery from damage. The capacity is limited because lost species cannot be revived, destroyed habitats are slow in recovery, toxic substances may persist for thousands of years and human settlements can hardly be removed. But before these limits are reached, there is leeway to shape nature and thus a need for management. For this reason protection standards are often formulated in very broad terms. For instance, when transportation and energy networks are built, they unavoidably cost living nature. How should it be determined whether that is to be tolerated or not? Once again, eco-proportionality would help here as a frame of balancing interests, even where it has not been introduced as a legal standard.

#### 4. Overlapping proportionalities in environmental law

Eco- and socio-logical proportionality appear to be overlapping in the realm of environmental law. In environmental law many rules already establish basic obligations of society vis-à-vis nature, asking for respect for it and obviously also requiring proportionality of means and ends, including alternatives testing. For instance, the German Federal Law on Protection from Emissions (Bundesimmissionsschutzgesetz – BImSchG) empowers the competent authority to order the operator of a dangerous installation to improve its environmental performance unless this causes unproportional costs. The relevant provision, Article 17, reads:

- (1) In order to perform the obligations resulting from this Act or from any ordinance issued hereunder, orders may be issued following the granting of the licence or an alteration notified pursuant to Article 15(1). If after the issue of such a licence or after an alteration notified pursuant to Article 15(1), the protection of the general public or the neighbourhood against any harmful effects on the environment or any other hazards, significant disadvantages and significant nuisances turns out to be inadequate, the competent authority shall issue subsequent orders.
- (2) The competent authority shall not issue any subsequent order if such order would lack *proportionality*, above all if the effort needed to

comply with an initial order is not commensurate with the *desired effect*; in this respect, special attention shall be paid to the nature, volume and hazardousness of the emissions originating from the installation and the immissions released by it as well as to the *useful life* and the characteristic *technical features* of the installation [emphasis added].

Proportionality in this sense is also an important principle in international law. For instance, Article 2.2 of the Agreement on Technical Barriers to Trade (TBT Agreement) requires that a measure aiming at a public interest such as health or environmental protection shall not be more trade-restrictive than necessary. The Appellate Body has established a rather sophisticated methodology of how to apply the test, requiring consideration of the following:

- (i) the degree of contribution made by the measure to the legitimate objective at issue;
- (ii) the trade-restrictiveness of the measure; and
- (iii) the nature of the risks at issue and the gravity of consequences that would arise from non-fulfilment of the objective(s) pursued by the Member through the measure. In most cases, a comparison of the challenged measure and possible alternative measures should be undertaken. In particular, it may be relevant for the purpose of this comparison to consider whether the proposed alternative is less trade restrictive, whether it would make an equivalent contribution to the relevant legitimate objective, taking account of the risks non-fulfilment would create, and whether it is reasonably available.<sup>27</sup>

However, this kind of proportionality, although dealing with environmental protection, is still characterized by the logic of minimizing encroachments on societal interests, as is familiar from its application in state–citizen-relationships. Environmental protection appears here as a public interest. The means serving it must be limited in order to protect individual rights. In contrast, eco-proportionality would reverse the question and demand that societal interests are limited in view of the protection of nature. Socio-proportionality, even in the realm of environmental protection policy, starts with a presumption for societal interests, while eco-proportionality departs from a presumption for the protection of nature. In the first vision mankind appears as master and nature as

<sup>27</sup> AB Tuna WT/DS381/AB/R, No. 322.

Table 6.1. *Socio-proportionality and eco-proportionality compared*

	Socio-proportionality	Eco-Proportionality
Objective justifiable?	Justify protection of nature	Justify social benefits
Means effective?	Exclude options that entail a superfluous burden on society	Exclude options that entail a superfluous burden on nature
Means necessary?	Choose the option that entails least burdens on society while being equally effective	Choose the option that entails least burdens on nature while being equally effective
Means balanced?	Sacrifice nature if the burden for society is excessive	Sacrifice social benefit if burden for nature is excessive

servant; in the second nature is seen as the source without which human-kind cannot survive.

The distinction between socio-proportionality in the realm of environmental policy and ecological proportionality may appear academic, because in both concepts societal interests are weighed against the interests of nature. But as the relevant law is often indeterminate, basic starting points and orientations do make a difference.<sup>28</sup> For instance, a major distinct feature of eco-proportionality is that it puts individual and social welfare interests more radically into question than does socio-proportionality. In traditional environmental law these interests remain largely unquestioned. For instance, in the cited Article 17 BImSchG, only 'the useful life and characteristic features of the installation' are considered on the side of societal interest, and in the equally cited Article 2.2 TBT Agreement only free international trade is considered. No question is raised as to whether the installation and international trade, respectively, provide a service for society. By contrast, eco-proportionality would ask more fundamentally for reflection on goals and giving reasons for them.

<sup>28</sup> The author feels that this difference has not been elaborated sufficiently in his chapter 'Balancing Environmental Risks and Socio-Economic Benefits of Alternatives: A General Principle and its Application in Natura 2000', in I. L. Backer, O. K. Fauchald and C. Voigt (eds.), *Pro Natura – Festschrift til Hans Christian Bugge* (Oslo: Universitetsforlaget, 2012), 585–601.

Table 6.1 is an attempt to structure the difference between the two proportionalities by varying the answers to the four tests.

## 5. Conclusion

Eco-proportionality is proposed as a possible structure for the balancing of interests of exploitation and protection of nature, thus fettering the discretion built into concepts such as nature rights, the *contrat naturel*, sustainability and cost-benefit analysis. Eco-proportionality is an analogy to the well-established principle of proportionality, here called socio-proportionality. Both principles have a common denominator in that they make a check on power, power of the state over society and of society (as individual and collective) over nature, respectively. As in socio-proportionality, eco-proportionality requires four tests, namely a justifiable objective of action and the effectiveness, necessity and weighing of means. It has been shown that the principle is already present both as a social and legal norm. There is reason to suggest that it should enter into more spheres of societal practice and legal order, at the same time taking a more differentiated and ambitious shape.