

BEST AVAILABLE TECHNIQUES PRINCIPLE: INTERNATIONAL TREATIES AND DRAFTING IN NATIONAL LEGISLATION

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Abstract Best available techniques (BAT) is a legal principle with origins in public international law. Through the activities of drafters at national levels, it finds its various expressions in the legal systems of individual states. This article will analyse the possible approaches to including the BAT principle in national legislation and the general guidelines that drafters should follow to achieve the desired effectiveness of legislation. International treaties are to be understood as partial drafting instructions. A case study will be made for the Slovenian legal system, where the expression of the BAT principle within the Slovenian national regulatory framework will be critically evaluated.

Keywords

best available techniques,
best available
technology,
legislative drafting,
sustainable development,
environmental law

1 Introduction

In the era of globalisation 3.0 (or 4.0, depending on the count) (Friedman, 2005; Baldwin, 2019), the international community, individual states, as well as many corporations in the natural resources sector are attempting to embrace technological advancements while at the same time balancing developmental and profit-generating aspirations with the need for sustainable conservation of natural resources and the desire to mitigate threats to the environment. Complex national and supranational regulatory frameworks have developed to find the optimal balance between the above considerations.

This article will analyse a specific principle that has emerged in international natural resources law, namely the best available technology/techniques (hereinafter BAT) principle and how it influences individual states' policy and drafting processes, which became or might become signatories of the instruments containing BAT principle. BAT is a manifestation of the meta-principle of sustainable development (Merkouris, 2012: 42) as it is aimed at ensuring the protection of the environment with not only the present but also future generations in mind, in line with sustainable use, intergenerational equity, intragenerational equity and integration of environmental protection and developmental aspirations (Montini, 2008: 523-524).

It thus demands that non-trivial environmental risks be mitigated so that the best technology or techniques, which are still tenable for an individual operator to survive economically, are used (Ackerman and Stewart, 1985: 1335). Implicit in the above is also the idea of *longue durée* considerations. If a technology installed is the best at a particular point in time, its viability might extend further in the future than if less advanced technology is used per more short-sighted approaches to cost-benefit analysis. The ideological background could be found in the utilitarian principle of the greatest happiness for the greatest number (Bentham, 2000) and its more modern economic theory-based variants (Fletcher, 1996: 155-170), all the while taking into the equation not only the benefits for the present but also for the future generations, not least in terms of a healthy living environment (Knez, 2017: 35).

Policy and drafting processes in states, which decide to adopt an international agreement containing BAT, are essential in ensuring that the relevant particular international instrument is complied with. Understanding requirements and approaches to policy and drafting is also an essential consideration in deciding to become a party to such an agreement. This is true, especially in smaller jurisdictions where the ability of the drafters to deal with implementation issues in both a prompt and quality manner might be constrained by financial and human resources capabilities (*Stefanou, 2008: 325*).

Thus, the Republic of Slovenia was chosen as an appropriate jurisdiction for the case study. It is, namely, a small jurisdiction for which an efficient approach to policy and drafting is even more important due to limitations regarding resource capabilities. Furthermore, it is a European Union member state, is situated in Central Europe and has a legal system similar to major continental legal systems, most notably Germany. All these characteristics support the relevance of the findings pertaining to Slovenia as a case study and enable them to be used by analogy in other relevantly similar jurisdictions.

The existing literature gap is substantial. While research regarding the best available techniques is thriving in other research areas (as evidenced, for example, by the review article prepared by Dellise *et al.*, 2020), research in the field of law has been very scarce. Of special note are Giljam's dissertation dealing with the role of the BAT principle in the European Union energy law (Giljam, 2019) and Merkouris' chapter on the best available technology in international law (Merkouris, 2012: 42-43). Research has been performed regarding the BAT principle as it pertains to individual national jurisdictions (Roslyakov *et al.*, 2021; Bar, 2018). No research has been performed thus far regarding BAT and either drafting or nomotechnics.

In this article, after the introduction and a methodological section, to better understand implementing the BAT principle as part of the supranational legislation or soft law documents, the principle itself and the selected international treaties and other documents will be presented. Then the possibilities of ensuring compliance with the supranational legislation will be analysed through all the phases of the drafting process. Finally, the case study of Slovenian legislation and its international obligations regarding the BAT principle will be evaluated, and its broader implications will be discussed.

2 Methodology

In methodological terms, the established qualitative methodology that is customary for the field of law will be employed. The author will use analytical, logical, dialectical and dogmatic methods. The approach will be partly interdisciplinary in the parts where it will touch on policy studies in connection with the drafting process. In this domain as well, analytic and logical methods will be used, as they apply to the broader field of social sciences (Phelan and Reynolds, 2002: 12).

The analytical method will be used throughout the article to critically evaluate different aspects of relevant treaty law, the drafting and policy process and national legislation on the BAT principle and its manifestations. Such an evaluation will be based on the understanding that the legal analysis operates in an environment that is highly contextual and is not amenable to precise replication as is available in the natural sciences (Murphy and McGee, 2015: 294). In this sense, legal research is not an epistemic but a phronetic endeavour, namely an argumentative practice with value-driven goals in mind (Xanthaki, 2010: 111).

The critical analysis will be supported with the use of the logical method. Its employment is standard in legal writing. Since the law has social effects and objectives, there is a necessity to facilitate understanding regarding discussions of law, sound reasons must be given for statements, and these must be explained and justified (Prakken and Sartor, 2015). In these terms, both formal and informal logic will be employed throughout the article, in the sense of the use of (rhetorical) syllogisms, arguments *a maiori ad minus*, *a minori ad maius*, arguments of coherence and other well-established forms of legal reasoning (see for example Bongiovanni *et al.*, 2018).

The dialectical method will be used mainly in the internal sense, where the author will perform a reasoned internal dialogue to arrive at the conclusions that are made specifically in the text of the article (Valauri, 2011). The dialectical method will be supported by the analytical and logical methods in the sense that reasons will be given for the claims made. Still, the entirety of the internal dialogue that was performed within the author's mind will not always be made fully explicit, and the discarded alternative claims might be abandoned. In this manner, the dialectical method employed will be Hegelian, signifying the movement from the abstract,

through the negative, to the concrete in reaching the conclusions through the employment of human reason (Lincoln, 2017).

Finally, yet importantly, the dogmatic method will ground the article in the understanding of the law as a normative phenomenon, where the traditional order of ontology and epistemology is reversed (Hage, 2011). Thus, the international treaties will be treated as theories of reality that can influence the social behaviour of drafters and the legislators at the level of national legal systems. It will be argued that under relevant circumstances, these might be applied to different legal systems via analogical reasoning (Peat, 2019: 111).

3 BAT in Public International Law

In public international law, the BAT principle has been included in several international treaties (Merkouris, 2012: 42-43).¹ The first historical use in an international agreement can be found in the 1979 Convention on Long-Range Transboundary Air Pollution (hereinafter CLRTAP),² which in Article 6 uses the dictum 'best available technology which is economically feasible'.

The notion of the best available technology economically feasible in CLRTAP can be understood as a generic performance standard (Byrne, 2015: 10), where the need for using the best technological solutions may be balanced against broader economic considerations. Therefore, this early formulation has come under criticism for allowing individual states to use the standard as an excuse for not investing in technologies that could mitigate long-range transboundary air pollution. As a notion with an unlimited semantic range, it can, namely, in almost all circumstances, be interpreted in such a way that allows the state not to enact desirable measures (Byrne, 2015: 13). The drafting can be furthermore criticised for its lack of clarity and embeddedness of the analysed notion into a broader chain of other different notions. Thus, the best available technology, which is economically feasible, is understood to be the most important of control measures compatible with balanced development,

¹ The BAT principle was also included in certain non-binding documents, such as the 1982 World Charter for Nature (G.A. Res. 37/7, U.N. GAOR, 37th Sess., Supp. No. 51, at 17 U.N. Doc. A/37/51 (1982), reprinted in 22 I.L.M. 455 (1982)). There exist other similar instruments as well, such as the 'clean production methods' of BAMAKO (U.N.T.S. 2101, p. 177) and OSPAR conventions (U.N.T.S. 2354, p. 67) and 'environmentally sound management' of the Basel Convention (U.N.T.S. 1673, p. 57).

² Convention on long-range transboundary air pollution, OJ L 171, 27.6.1981, pp. 13-24.

which is a part of the contracting party's undertaking to develop the best policies and strategies in order to combat air pollution, which is performed while taking into account articles 2 to 5 of the CLRTAP. Articles 2 to 5 of the CLRTAP, dealing with fundamental principles (Article 2), information exchange (Articles 3 and 4) and obligation to consult (Article 5), do not serve to demystify the legal content of the above vague provision (Article 6). The BAT principle is furthermore included in several protocols to the CLRTAP (Oslo, Aarhus and Gothenburg protocols).³

A better approach, in terms of drafting, was applied in the 1992 Convention on the Protection of the Marine Environment in the Baltic Sea (hereinafter the Helsinki Convention).⁴ It requires the parties to promote the use of the best available technology, together with best environmental practice, in paragraph 3 of Article 3, which states the fundamental principles and obligations. Paragraph 1 of Article 6 of the Helsinki Convention clarifies that the best available technology is to be used for point land-based sources of pollution, while the best environmental practice is to be used for all land-based sources. Helsinki Convention then deals with the potential lack of clarity regarding the requirements of the BAT principle by more precisely determining its content in Regulation 3 of Annex II. It states that special consideration should be given to *comparable processes, facilities or methods of operation which have recently been successfully tried out; technological advances and changes in scientific knowledge and understanding; the economic feasibility of such technology; time limits for application; the nature and volume of the emissions concerned; non-waste/low-waste technology; the precautionary principle*.⁵

The Helsinki Convention, therefore, goes a long way to make the necessary considerations in applying the BAT principle as straightforward as possible while also not allowing for the degree of weighing that CLRTAP seems to support with the additional wording: 'which is economically feasible'. Even more importantly, Regulation 4 of Annex II, Helsinki Convention supports that the content of the notion is to change 'in the light of technological advances and economic and social

³ Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on further reduction of sulphur emissions (OJ L 326, 3.12.1998, pp. 35-56); Protocol to the 1979 Convention on Long Range Transboundary Air Pollution on Persistent Organic Pollutants (OJ L 81, 19.3.2004, pp. 37-71); Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to abate acidification, eutrophication and ground-level ozone, OJ L 179, 17.7.2003, pp. 3-54.

⁴ Convention on the Protection of the Marine Environment of the Baltic Sea Area (U.N.T.S. 1507, p. 167).

⁵ Helsinki Convention (U.N.T.S. 1507, p. 166), Annex II, Regulation 3, paragraph 1.

factors, as well as changes in scientific knowledge and understanding'.⁶ With such wording, the doctrine of *contemporanea exposition* is rejected in the context of the Helsinki Convention (D'Amato, 1991: 191-192), and the alternative approach, namely the *renvoi mobile*, is applied (Georgopoulos, 2003: 123-148). This might be a reasonable way to enact the BAT principle if its purpose is correctly understood and the goals of its use as a regulatory tool are to be achieved.

The 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (hereinafter OSPAR Convention) applies a similar approach but uses the terminology 'best available techniques.' As Merkouris correctly notes, the term 'best available techniques', although sharing the same nucleus, is slightly broader than the term 'best available technology.' It namely encompasses not only the technology used but also how the design, building, maintenance, operation and decommissioning of installations are performed (Merkouris, 2012: 43).

In Article 2, paragraph 3.(a)(i), in connection with paragraph 3.(a) of the OSPAR Convention, the use of best available techniques is prescribed in a way that is similar in both wording and drafting technique to the one used in Helsinki Convention. However, it is even more detailed and considers several additional questions that might arise when trying to apply the BAT principle. In Article 1, paragraph 1 of the OSPAR Convention, the best available techniques are specifically required for point sources. The OSPAR approach has been used almost verbatim (Sands and Peel, 2012: 363) in the Protocol on the Protection of the Marine Environment of the Black Sea From Land-Based Sources and Activities of the Convention on the Protection of the Black Sea Against Pollution (hereinafter Black Sea Convention),⁷ in the Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources and Activities (hereinafter Syracuse Protocol)⁸ and in the Convention on cooperation for the protection and sustainable use of the river Danube (hereinafter Danube Convention).⁹

⁶ Ibid., Annex II, Regulation 4.

⁷ Black Sea Commission, Convention on the protection of the Black Sea against pollution, Bucharest, 1992 (U.N.T.S. 1764, pp. 3-32).

⁸ Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources and Activities, Athens, 1980 (U.N.T.S. 1328, p. 105).

⁹ Convention on cooperation for the protection and sustainable use of the river Danube, Sofia, 1994.

Thus, the BAT principle *strictu sensu* usually features in international treaties as either 'best available technology' or 'best available techniques.' It is to be understood as a notion that changes its content through time. The usual approach to drafting international treaties is to contain the principle in the central part of the treaty while putting forth quite detailed elaborations regarding its content in an appendix or a similar document. This is important if a more profound understanding is gained of how drafting should be approached at the national level in the states, parties to the treaties containing the BAT principle.

4 BAT and the drafting process on the national level

The drafting process on the national level must be understood as a part of the broader legislative process (*Stefanou, 2008: 323*). Within the above process, the role of the drafter is to be emphasised (Revell, 2011: 149), and Thornton's five stages of drafting are to be applied if the likelihood that the legislation will be of sufficient quality is to be maximised (Xanthaki, 2013: 145-162).

Implementing international agreements is specific in this regard, as there are two main theories (monism and dualism) which explain the relationship between international legal order and national legislation (Paust, 2013: 244-265; Xanthaki, 2014: 170). Each jurisdiction might subscribe to one or the other, but constitutional differences might exist in degrees. The terms moderate monism or moderate dualism are sometimes used to describe the above (Rudolf, 1987: 24).

According to Mann, there are consequently four main methods for giving effect to international treaties in the national legal system (1946: 278). The first is that national legislation does not refer to the international agreement. The second is that it does and gives effect to it via a separate substantive rule. The third is that it includes the international treaty in a schedule for the purpose of informing the public. The fourth is that it may be included in a schedule and given the force of law (Mann, 1946: 278).

No profound drafting considerations are necessary for the last of the above options. Further focus will thus be on the previous three options, which require a similar approach by the drafters, as they will have to decide how to implement the BAT principle into national legislation substantively. In this regard, as with many concepts stemming from international law, there is some degree of autonomy regarding the

way the individual state approaches the matter, although we cannot speak of a wide discretion as in certain other matters (Weingerl and Tratnik, 2019: 96).

In implementing the BAT principle, the drafters will primarily have to understand the legislative restrictions placed upon the national legislation by the international treaty which is being implemented. Since, in the above three abstract cases, the enactment of a substantive national provision is necessarily limited by the framework put forth by the international agreement, such a restriction will be necessarily a strong one (Bennion and Jones, 2013: 682). In the understanding phase, the international treaty will either complement and perhaps even partially or fully supplement the drafting instructions (Xanthaki, 2014: 22). The drafter will thus draw upon the content of the international treaty containing the BAT principle itself in order to understand the intention and the *telos* that needs to be taken into account when the international legislation is being transposed.

In the analysis phase, the international treaty itself is furthermore partly to be used as drafting instructions or at least as a limitation placed upon the drafter (Xanthaki, 2014: 174). Per Xanthaki, nine points are crucial, namely the definition of the problem, nature and scale of the risk from harm, options for dealing with the problem, the likely impact of each option, administrative mechanisms, the monetary value of expected benefits, estimated costs, cost-effectiveness analysis and issues of distributive fairness as well as public perception (2014: 36-37).

In this regard, international treaties contain important information that should not be disregarded regarding the mischief being addressed and the options for dealing with the problem. A treaty may also, through its content, restrict the potential administrative mechanisms to be used at national levels as well as the nature and scale of the risk from harm. However, still relevant and to be decided at the national policy and regulative levels are other issues from the Xanthaki checklist, especially the financial questions, questions of distributive fairness and public perception. Additionally, what might be considered in the broader sense is the existence of supervisory mechanisms, specific characteristics of national administrative processes, ideologies of persons acting in official capacities with the state and institutional characteristics of the state bureaucracy (Peterson, 2018).

Both *ex-ante* and *ex-post* aspects of the BAT principle must be considered in the design phase, especially in light of its nature as a term that changes meaning through time when applied to different factual circumstances. For example, the OSPAR Convention explicitly states in Appendix 1, paragraph 3, that it is a term that changes meaning through time, but even when such a specific statement is not made in an individual treaty, the nature of the BAT principle itself has to be taken into account. It is inherent in any BAT principle that it changes its meaning through time, or as Tanaka correctly notes, it is to be understood as an evolutionary concept (Tanaka, 2013: 161).

With this in mind, the *ex-ante* drafting considerations in the design phase should be that national legislation should be compliant with the international treaty containing the BAT principle. However, *ex-post* considerations should be taken into account as well. The legislation should also ensure that future national legislative texts in relevant fields will be compliant with the BAT principle. This can be achieved in several ways. The legislation might be designed so that the abstract norm will cover all other potential areas where the requirements of the BAT principle need to be taken into account in the future and that *lex specialis* norms might not accidentally derogate it in specific legislative areas. The other possibility is the legislator's continuing attention to such a problem, but especially in smaller jurisdictions, where drafting offices might be understaffed (*Stefanou, 2008: 325*), the 'preventive' solution might be a more tenable one.

In choosing the national measure, congruence between the national and international levels is necessary (Krzyk and Drev, 2021: 167-186). This usually includes defining essential terms and structuring the piece of legislation with effectiveness in mind. Further considerations are the definition of when the national measure comes into force and a clear definition of remedies for aggrieved parties (Xanthaki, 2014: 174). When composing and developing the draft, special attention is to be paid to the temporal factors of the BAT principle. Since international treaties are, in terms of the time of their validity, slow-changing legal documents, the drafters at the national level must take this into account.

There are two possible solutions in cases where there are separate national provisions that give the contents of the international treaty the force of law. The first one is that the national legislation uses notions and legal signs, which are compliant with the treaty, but at the same time, open enough to allow court practice for adaptation to shifting societal circumstances over time. The second possibility is that provisions are drafted to allow for amendment in national legislation in case of need but that the specific national composition choice remains congruent with the treaty's requirements. In this second case, continuous attention has to be paid to adherence to the content of the international treaty with each subsequent amendment of national legislation.

Scrutiny and testing of the prepared legislative text should be performed in the usual manner according to established quality markers. One of the possible gold standards used is the approach from Thornton's legislative drafting, which entails the assessment of the draft on the following sixteen points): consistency of language, appropriate referencing of other legal texts, congruent internal references, precise and correct definitions, faultless numbering of provisions, appropriate use of paragraphs, use of capitalisation, correct spelling, correct and intent-congruent punctuation, no unnecessary *lex nullius* provisions, appropriate divisions, adequate preliminary provisions or provisions containing guiding principles, accurate geographical references and names of public institutions, accuracy of headings and marginal notes, adequacy of the long title and adequacy of the table of contents (Xanthaki, 2014: 200-201).

Of course, all of the above does not apply to every piece of legislation enacting BAT principles at the national level. Nevertheless, these are essential guidelines to be followed if the sufficient quality of legislation regarding this vital principle is to be achieved and policies are to be practical and societal practices are made congruent with the intent of the legislator and policymakers.

5 Case Study of Slovenia

To better illustrate a potential adoption and transformation of legal norms at the level of public international law, regarding the BAT principle, into national legislation, a case study will be performed regarding the Slovenian legislative framework. Relevant provisions will be critically analysed, especially with the point

of view of drafting in mind. First, the international treaties binding on Slovenia will be ascertained. Then, the adoption, transformation, and nomotechnical aspects will be studied.

Even though the opinions of legal scholars are to some degree divided, it is safest to characterise the Slovenian approach to the adoption of international treaties into the national legal order as moderately dualistic (Drenik, 2013: 49). An international treaty is to be ratified before law or decree of ratification is enacted within the national legal framework (Drenik, 2013: 53). Although Slovenia *strictu sensu* includes international treaties in its legal order through adoption, provisions of individual treaties can nevertheless be transformed or incorporated into national legislation in order to ensure its congruence with international obligations in the broader sense (Olaj, 2013: 123-159). Thus concerning the BAT principle, both levels need to be taken into account.

The Republic of Slovenia is a signatory of the following international treaties containing the BAT principle:

- CLRTAP with protocols;
- Helsinki Convention;
- Danube Convention.

Article 6 of the CLRTAP binds the Republic of Slovenia to use the best available technology, which is economically feasible and low- and non-waste technology. Its protocols furthermore specify its obligations regarding the BAT principle. The CLRTAP and its protocols bind Slovenia through the mechanism of succession from the Socialist Federative Republic of Yugoslavia.¹⁰

Slovenia ratified the Helsinki Convention in 1999.¹¹ Point c of paragraph 1 of Article 3 of the Helsinki Convention binds Slovenia to state limits for waste-water discharges in permits based on the BAT principle. Point f of the same paragraph requires it to utilise the BAT principle to reduce nutrient inputs from industry and

¹⁰ Act on succession to certain international agreements whose member was the former SFRY, Official Gazette of the Republic of Slovenia – International Contracts, no. 5/94.

¹¹ Zakon o ratifikaciji Konvencije o varstvu in uporabi čezmejnih vodotokov in mednarodnih jezer, Official Gazette of the Republic of Slovenia – International Contracts, no. 5/99.

municipal government. Under paragraph 2 of the same article, specific treatment of individual industrial sectors per the BAT principle is necessary. Adherence to Article 13 of the Helsinki Convention requires riparian states to exchange information on the use of the best available technologies for the purposes of the convention. The specific convention-related use of the BAT principle is defined in Annex 1 of the Helsinki Convention.

Although not a riparian state, Slovenia is a party to the Danube Convention as an upriver state.¹² Under Article 7 of the Danube Convention, Slovenia is required to use the best available techniques and best environmental practices in connection with emission limitation and water quality objectives and criteria. In line with Article 12 of the convention, it is required to share best practices and exchange information regarding BAT with other parties to the Danube Convention.

Slovenia is not a signatory to the OSPAR Convention; however, it supports it and has included its principles in its national legislation in different aspects (Uhan *et al.*, 2010: 14).

Slovenia's international obligations are very important in terms of its membership in the European Union, in line with Article 4 of the Slovenian Constitution.¹³ The Constitutional court of the Republic of Slovenia has namely decided that BAT conclusions stemming from BREF documents regarding integrated prevention and control of pollution can be used directly and are thus a part of the national legal system.¹⁴

In general, BAT conclusions are a document adopted by the European Commission and includes parts of BREFs (Kim *et al.*, 2022: 2209; Telenga-Kopyczyńska and Jonek-Kowalska. 2021: 2631),¹⁵ including conclusions regarding best available techniques, their description, information for evaluation of their relevance, the level

¹² Zakon o ratifikaciji Konvencije o sodelovanju pri varstvu in trajnostni uporabi reke Donave (Konvencija o varstvu reke Donave) (MVTURD), Official Gazette of the Republic of Slovenia, no. 47/1998, z dne 29. 6. 1998: 205.

¹³ Constitution of the Republic of Slovenia, Official Gazette of the Republic of Slovenia, no.33/91-I, 42/97 – UZS68, 66/00 – UZ80, 24/03 – UZ3a, 47, 68, 69/04 – UZ14, 69/04 – UZ43, 69/04 – UZ50, 68/06 – UZ121,140,143, 47/13 – UZ148, 47/13 – UZ90,97,99, 75/16 – UZ70a in 92/21 – UZ62a.

¹⁴ Constitutional Court of the Republic of Slovenia, Decision in the Case U-I-182/16-20, 23. 9. 2021.

¹⁵ All the BAT reference documents in force are available at <https://eippcb.jrc.ec.europa.eu/reference/> (accessed March 30, 2022).

of emissions, monitoring procedures, values of uses of matter and energy, as well as potentially also the measures for eco remediation (Vázquez Calvo *et al.*, 2021).¹⁶

The BAT principle enshrined in the law of the European Union thus includes preventive and curative approaches and is, among other things, aimed at making the European industry as sustainable as possible. Its exact content is thus determined in the context of the Sevilla Process and is driven by a vast amount of collected and analysed data (Evrard *et al.*, 2016: 520-525; Thorén *et al.*, 2021: 478-484).

Such an approach of the Slovenian legislator regarding the state's obligations under its membership in the European Union is both logical and appropriate. It ensures that the state's international obligations are met while at the same time giving the national legislator enough room to specify and adopt solutions in line with the specific requirements of Slovenia as a member state of the European Union.

The main piece of national legislation that employs the BAT principle within the Slovenian legal framework is the Environmental Protection Act (in Slovene, 'Zakon o varstvu okolja'; hereinafter ZVO-1).¹⁷ The nomotechnical approach to the incorporation of the BAT principle in the context of the Slovenian environmental law is such that at first, in Article 3 of the ZVO-1, a precise definition is given of what BAT entails. This is in line with the state-of-the-art of science in the narrow field of legislative drafting (Xanthaki, 2014: 200-201).

The definition of BAT, put forth by the Slovenian legislator, is elaborate. First, the best available technique is defined in point 11 of paragraph 1 of Article 3 of ZVO-1. Subpoints 11.1 to 11.7 of the above provision then include additional in-detail definitions of the notions of techniques, best available techniques, reference document BAT, conclusions on BAT, emission levels and emerging techniques.¹⁸ The Slovenian legislator's attempts to adequately define the notion of the best available techniques lack drafting quality. It lacks clarity to a certain degree since it uses the term 'activity' to describe what are essentially processes, facilities and

¹⁶ See also Constitutional Court of the Republic of Slovenia, Decision in the Case U-I-182/16-20, 23. 9. 2021.

¹⁷ Environmental Protection Act, Official Gazette of the Republic of Slovenia, no. 39/06 – uradno prečiščeno besedilo, 49/06 – ZMetD, 66/06 – odl. US, 33/07 – ZPNačrt, 57/08 – ZFO-1A, 70/08, 108/09, 108/09 – ZPNačrt-A, 48/12, 57/12, 92/13, 56/15, 102/15, 30/16, 61/17 – GZ, 21/18 – ZNOrg, 84/18 – ZIURKOE in 158/20.

¹⁸ *Ibid.*

methods of operation (see drafting approaches from OSPAR and Helsinki conventions).

Furthermore, the drafting is not concise, where it would be better if it were. In point 11, the adjectives 'effective and advanced' are used, and in further clarification of technique in 11.3, only the adjective 'most effective' is used. The term 'advanced' is not repeated in any of the subpoints. Thus it remains unclear what the legislator's intent was in seemingly explaining the terms 'effective and advanced' with 'most effective' and, furthermore, what the role of the term 'advanced' is in determining the semantic scope of the provision.

Furthermore, it is unclear why the legislator would opt for a novel definition of the BAT principle, not in line with the international convention it purports to adhere to (CTLRAP). This is not aided by the fact that a further explanation of the notion of BAT is given in the last sentence of point 11 of paragraph 1 of Article 3 of ZVO-1, that the best available technique is defined by the documents of the competent authority of the EU.

The BAT principle is then included for diverse policy purposes throughout the ZVO-1, among else regarding the preventive principle (Article 7), dealing with waste (Article 20), various aspects of environmental permits (Articles 70 and 78), as well as the testing of emerging techniques (Article 75). This is an appropriate way to approach the design of legislation. However, the decision not to include the BAT principle as a different legal principle but merely as part of the preventive principle is to be criticised. Its scope is namely broader than just the prevention of harm, as it can aid in other societal roles, for example, the reduction of long-term costs and the development of new technology (Wen *et al.*, 2016: 231-240; Hussain *et al.*, 2021).

The provisions of the ZVO-1 and the European Union's legislation, based on the international obligations of Slovenia, are furthermore specified in two pieces of secondary or subordinate legislation. In terms of legislative design, this is both logical and suboptimal. It is logical since the legislator cannot be expected to deal with every tiny aspect of technical issues in primary legislation (Kinsley, 2019: 101). It is suboptimal because, in the context of the Slovenian legal framework, rights and

obligations can only be determined by the parliament and thus, questions of constitutionality might arise.¹⁹

The Decree on the emission of substances into the atmosphere from stationary sources of pollution thus determines the measures to prevent or lower air pollution. It employs the requirement of the best available techniques in point 6 of paragraph 1 of Article 1.²⁰

The second relevant piece of subordinate legislation is the Decree on activities and installations causing large-scale environmental pollution.²¹ Since it only details the criteria for determining the best available techniques and does not set any additional obligations, it is, in constitutional terms, less problematic than the above-mentioned Decree on the emission of substances into the atmosphere from stationary sources of pollution.

The above analysis shows that the approach of the Slovenian legislator from the standpoint of drafting is appropriate. It can, however, be stated that certain mistakes were committed both in terms of the design (potentially unconstitutional subordinate legislation) and composition (the awkward definition of the best available techniques in the ZVO-1) of the legislation. Further analysis shows that in nomotechnical terms, the BAT principle could be employed on a broader array of sectoral legislation within the Slovenian national framework (Tomažič, 2018: 665-683), most notably in the energy sector (*e.g.*, in the Electricity Supply Act).

6 Conclusions

The BAT principle is an essential legal manifestation of the meta-principle of sustainable development. It trickles down from international treaties and into EU law and national legal provisions of individual states. Appropriate legislative drafting is necessary to achieve the operability of the principle and actual implementation of the best available techniques.

¹⁹ Constitution of the Republic of Slovenia, Official Gazette of the Republic of Slovenia, no. 33/91-I, 42/97 – UZS68, 66/00 – UZ80, 24/03 – UZ3a, 47, 68, 69/04 – UZ14, 69/04 – UZ43, 69/04 – UZ50, 68/06 – UZ121,140,143, 47/13 – UZ148, 47/13 – UZ90,97,99, 75/16 – UZ70a in 92/21 – UZ62a), Article 87.

²⁰ Decree on the emission of substances into the atmosphere from stationary sources of pollution, Official Gazette of the Republic of Slovenia, no. 31/07, 70/08, 61/09 in 50/13.

²¹ Decree on activities and installations causing large-scale environmental pollution, Official Gazette of the Republic of Slovenia, no. 57/15.

In this regard, international treaties containing the BAT principle are to be treated as partial drafting instructions. One of the available methods should be employed, in line with an individual state's constitutional system, to give the BAT principle from international treaties the desired effect in a national legislative framework. To this end, more detailed provisions at the level of national legislation will often prove helpful.

Drafters should follow the conventional approaches in forming relevant legal texts within the policy and legislative processes. Particular emphasis is to be given to the analysis, design, composition, scrutiny and testing phases of the preparation of the legislative draft. In this manner, the effectiveness of legislation containing the BAT principle can be maximised so that the state also adheres to its international obligations.

A case study was made on the international obligations of the Republic of Slovenia and the way it implemented the BAT principle in its various manifestations into its national legislation. Although, in general, the approach by the Slovenian legislator and policymakers was found to be appropriate, certain irregularities occurred in the design and composition phases of the drafting process. This makes the legal texts, including the BAT principle in the Slovenian legal system, less clear, concise, and effective than optimal.

This article opens several avenues for further research. A deeper analysis of international treaties as drafting instructions can be made, especially in terms of the implications, specifics and the relationship between the characteristics of individual national legal systems and the implementation of international treaties. Furthermore, a similar analysis regarding the role of drafting in giving effect to the BAT principle could be made for other principles of environmental and energy law and other legal principles from international treaties in general. The critical analysis could be performed for jurisdictions other than Slovenian, similarly focusing on nomotechnics and the drafting process.

The BAT principle is essential in international and national natural resources, environmental and energy law. To implement the said principle from international treaties successfully in individual jurisdictions, adherence to the doctrine and ensuring high standards of the drafting process are both necessary. In this manner,

states' intentions in including the BAT principle in their international agreements and the specific characteristics of individual national legal systems can work in congruence to the benefit of a broad array of individuals in achieving sustainable development for their societies.

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