

ENVIRONMENTAL PROTECTION VS ENERGY SECURITY IN SHALE GAS ACTIVITIES

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Abstract

One of the purposes of law is to find a balance between two competing interests: protection of individual rights and security of the society. In addition, qualitative criteria and minimum standards for such a compromise must be set.

In the changing World, new concepts that materialize those competing interests constantly arise. A person's right to a clean environment as well as the energy security are among such new concepts. In most cases, none of them is to be found in main legislative documents (Constitutions, founding Treaties). However, both concepts are recognized as fundamental by courts through the interpretation of legislation.

Right to a safe environment is one of a new generation human rights. Supranational courts have established Governments' obligation to take all feasible measures in order to ensure the quality of environment is not deteriorating. However, in certain cases this right (as any other human right) may be restricted. There is no definite list of elements that can justify such a restriction. However, national security is universally established to be one of such elements. In the modern world, energy security is perceived as one of the dimensions of national security. Such a position is confirmed both at the national and supranational levels.

Question of qualitative standards arises when searching for a balance between the protection of environmental rights and the energy security. Currently, there are no clearly established requirements to be observed during such a scrutiny, although certain practice already exists in the legislation and jurisprudence.

Author analyses the link between the protection of environmental rights and the energy security, with the aim to establish qualitative EU law standards of the relationship between individual and collective security measures. The analysis is based on the author's research of the unconventional hydrocarbons' activities from the perspective of the EU environmental legislation.

Keywords: environmental rights, energy security, unconventional hydrocarbons

Introduction

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In the changing World, new concepts materializing those competing interests constantly arise. A person's right to a clean environment as well as the energy security are among such new concepts. In most cases, none of them is to be found in main legislative documents (Constitutions, founding Treaties). However, both concepts are recognized as fundamental by courts through the interpretation of legislation. Currently, there are no clearly established requirements to be observed when searching the

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1. Existence of Environmental Rights

Concern over the worsening environmental situation in various parts of the World emerged into the discussion on the right to a clean environment as a human right. This discussion touches upon different questions: from the very existence of such rights to problems of the distinction between substantive and procedural human rights to a clean environment. According to authors that do not argue the existence of such rights, substantive environmental rights (whatever their title is: 'a right to an environment', a right to a 'healthy', 'safe', 'decent' environment) belong to the third generation human rights (or so-called 'solidarity rights')².

International environmental law does not provide for a precise legal instrument that would be specifically drafted to create a universal substantive environmental law³.

The first international law document mentioning environmental rights (although only in the procedural context) was the UN Declaration for Human Rights⁴. Environmental rights finally found their way to the list of the commonly accepted international law principles in another widely known 'soft law' instrument: the Principle I of the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro (so-called Rio Principles), stating that '[h]uman beings are at the centre of concerns for sustainable development'⁵.

Environmental rights have a certain degree of dualism: they both have a substantive and a procedural element, substantive being the right to a clean environment, the procedural – the right to participate in the environmental decision-making process⁶. Some authors consider this dichotomy being the evidence of co-existence of separate concepts of environmental rights⁷.

2. Substantive Environmental Rights

Substantive environmental rights are not embedded in universal international law instruments. However, they may be found in some regional treaties and other instruments of international law. In addition, European Court of Human Rights has numerous times interpreted European Convention on Human Rights as ensuring the protection of the environment⁸.

The legal system of the European Union does not entrench any substantive environmental rights either, although the discussion on a fundamental right to a clean environment at EU level began in 1989. The European Parliament then adopted a resolution on fundamental rights and fundamental freedoms; in this Resolution, it was stated that the preservation, protection and improvement of the quality of the environment was an integrative part of all Community policy⁹.

Currently, high level of environmental protection is declared as one of the goals of the European

² M.Fitzmaurice, 'Contemporary Issues in International Environmental Law' (London: Edward Elgarve 2009) 171-172.

³ S.Turner, 'A Substantive Environmental Right: an Examination of the Legal Obligations of Decision-Makers Towards the Environment' (Kluwer 2008), 6-7.

⁴ UN General Assembly, Universal Declaration of Human Rights, 10 December 1948, G.A. Res. 217, U.N.GAOR, 3rd Sess., Part 1, at 71, U.N. Doc. A/810 (1948).

⁵ U.N. Doc. A/CONF. 151/5/Rev.1 (1992).

⁶ A.Postiglione, 'Human Rights and the Environment' [2010] 'The International Journal of Human Rights', Vol. 14, No.4, 526.

⁷ For a discussion, see I.Žvaigždienė, 'Aplinkos apsauga žmogaus teisių kontekste' ['Environmental Protection in the Context of Human Rights'] [2011] Mokslo darbai: Teisė, Vol. 78, 152-167.

⁸ For a more thorough analysis of the EctHR Practice see M.Fitzmaurice, *op.cit.*, see fn 1, at p.181-206.

⁹ European Parliament, Resolution of April 12, 1989 [1989] OJ C120/51, point 24.

Union¹⁰, and is seen as a reflection of a right to a clean environment¹¹. This principle is believed to be observed when the application of integration and precautionary principles is ensured¹². According to the Court of Justice of the European Union, this principle does not require the highest technically feasible level of protection to be adopted¹³. In addition, various factors (geographic, economic, social, geopolitical) may be taken into account when balancing interests and determining the content of the principle of high level of environmental protection¹⁴. Energy security is explicitly confirmed as one of such factors¹⁵.

Finally, entrenchment of the environmental rights to national Constitutions may be crucial to the protection of the environment as they become a part of nation's legal system and thus offer the potential for individuals to challenge decisions of the state¹⁶. It was identified¹⁷ that out of the 193 nations of the World (in 2005), 117 have the protection of the environment or natural resources mentioned in their Constitutions in one or another way.

3. Procedural Rights

Having regard to the fact that substantial rights and principles *per se* are neither substantial enough nor all-encompassing, they must be complemented by procedural rights. Moreover, the lesser the level of substantive human rights protection is and the bigger its gaps are, the more need of complementary procedural guarantees arises¹⁸.

The first legal document to have procedural environmental rights embedded in it, is the UN Declaration of Human Rights¹⁹. This document recognized that citizens should be provided with mechanisms with which to voice their opinions in relations affecting them, to participate in decision-making processes and to have forms of redress where those decisions encroached upon their rights²⁰. This notion is thoroughly elaborated in the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) that grants the public rights and imposes on Parties and public authorities obligations regarding access to information and public participation and access to justice²¹.

4. Energy Security

The relationship between the environmental protection and energy security depends on different understanding of the energy security concept. This concept emerged as a result of the 1970s oil crisis related to the turmoil in the Middle East. Currently, energy security is not separable from the national security in general²².

¹⁰ Art. 3 of the Treaty on European Union, [2010] OJ C83/01.

¹¹ S. Bogojevic, 'EU Human Rights Law and Environmental Protection: The Beginning of a Beautiful Friendship?' [2014, online] In: S.Douglas-Scott, N.Hatzis (eds.) EU Human Rights Law, (London: Edward Elgar Publishing). Online access: <<http://ssrn.com/abstract=2475334> >, [last accessed 07-03-2015].

¹² H.Veinla, 'Determination of the Level of Environmental Protection and the Proportionality of Environmental Measures in Community Law' [2004, online], *Juridica international*, IX. p. 89-98. Online access: <<http://www.juridicainternational.eu/?id=12623>> [last accessed 07-03-2015].

¹³ CJEU Judgement C-233/94, Germany v Parliament and Council, 13 May, 1997, ECLI:EU:C:1997:231. See p. 48.

¹⁴ CJEU Judgement C-341/95, Gianni Bettati v Safety Hi-Tech Srl, 14 July, 1998, ECLI:EU:C:1998:353.

¹⁵ See discussion below.

¹⁶ S.Turner, *supra* 3, 27.

¹⁷ Materials for the 61st Session of the United Nations Commission on Human Rights, Geneva March 2005, online access: http://earthjustice.org/sites/default/files/library/references/2005_ENVIRONMENTAL_RIGHTS_REPORTrev.pdf [last accessed 07-03-2015], 86-109.

¹⁸ U.Beyerlin, T.Maruhn, 'International Environmental Law' (Oxford: Hart Publishing 2011), 393.

¹⁹ *Supra* 4

²⁰ Arts. 19, 2(1), 8.

²¹ <http://www.unece.org/env/pp/welcome.html> [last accessed 07-03-2015].

²² D.Yergin, 'Ensuring Energy Security' [2006] *Foreign Affairs*, Vol 85 No 2, 69.

According to the International Energy Agency, energy security can be defined as the uninterrupted availability of energy sources at an affordable price²³. European Commission adds to this definition the need to respect environmental concerns and to look towards sustainable development²⁴. NATO emphasizes three dimensions of the energy security: importance of energy sources for the national security, physical security of the energy infrastructure, energy effectiveness of military units²⁵.

In other definitions of the energy security, emphasis is put not only on availability of energy sources, but also on availability of energy supply or energy related services (electricity, heat production, transport sector), as well as on impacts to the economy in general²⁶.

In Lithuania, energy security is also understood as the security of the supply of energy sources; in addition, energy security is regarded as one of the dimensions of the national security, as well as one of the prerequisites of the energy independence²⁷.

Taking into account results of the research of the concept of the energy security, different definitions of the energy security can be summarized as the absence of, protection from or adaptability to threats that are caused by or have an impact on the energy supply chain.²⁸

In the European Union, energy security issues for the first time were addressed in the context of the EU regional policy, when additional funding was foreseen to ensure electricity supply to remote mountain areas in Italy²⁹. Later, security of oil and gas supply to the EU became a part of the EU energy security legislation³⁰.

Energy security is also one of the issues of political agenda. In the European Commission Green paper on the energy security, both supply and demand sides of the energy security are addressed (e.g., energy efficiency)³¹. In addition, Council of the European Union has numerous times addressed energy security. Moreover, a separate meeting was dedicated to this issue in 2009³².

In 2014, European Commission published the EU energy security strategy³³. In this document, shale gas and other unconventional hydrocarbons are mentioned as factors that add to the security of energy supply in Europe³⁴.

Court of Justice of the European Union has also confirmed energy security to be an important interest of national security. In the *Campus Oil* judgement, the Court stated the energy security in the light of possible energy supply disruptions might be treated as a public interest and public security issue

²³ International Energy Agency information [online]. Online access: <<http://www.iea.org/topics/energysecurity/>>, [last accessed 07-03-2015].

²⁴ European Commission Communication 'Energy: European strategy for the security of gas supply. Green Paper', COM(2000)769, 1 December, 2000, not published in OJ.

²⁵ NATO's role in energy security [online], NATO, 13.08.2014. Online access: <http://www.nato.int/cps/en/natohq/topics_49208.htm>, [last accessed 07-03-2015].

²⁶ See: C.Winzer, 'Conceptualizing Energy Security' [2011], EPRG Working Paper 1123, CWPE 1151.

²⁷ On the Approval of the National Energy Independence Strategy, Parliament of the Republic of Lithuania, XI-2133, 26 June, 2012, Valstybės žinios, 10-07-2012, Nr. 80-4149.

²⁸ Ibid, p. 24.

²⁹ Council Regulation (EEC) No 2618/80 of 7 October 1980 instituting a specific Community regional development measure contributing to improving security of energy supply in certain Community regions by way of improved use of new techniques for hydro-electrical power and alternative energy sources, OJ L 271, 1980, p. 23-27. Later, some islands of Greece were added to the scope of this Regulation: Council Regulation (EEC) No 218/84 of 18 January 1984 amending Regulation (EEC) No 2618/80, OJ L 27, 1984, p. 19-21.

³⁰ Council Regulation (EC) No 2964/95 of 20 December 1995 introducing registration for crude oil imports and deliveries in the Community, OL L 310, 1995, p. 5-6; Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, OL L 295, 2010, p. 1-22.

³¹ European Commission, COM(2000)769, supra 24.

³² In the conclusions of the meeting, energy efficiency, diversification of energy suppliers, sources and supply routes, and promotion of the Union's energy interests vis-à-vis third countries were emphasized: Presidency Conclusions of the Brussels European Council (19/20 March 2009). 2009.04.29, Nr. 7880/1/09 REV 1, p. 24.

³³ European Commission Communication 'European Energy Security Strategy' 28 May, 2014, COM(2014)330, not published in OJ.

³⁴ Ibid, p. 13.

in the context of the free movement of goods³⁵. Court of the European economic area supports such a position³⁶.

To conclude, energy security is regarded as an important element of the national security, and, in exceptional circumstances, may be used as a justification for restriction of other economic rights.

5. Relationship Between Energy Security and Environmental Protection

There are not many researches on the relationship of the environmental protection and the energy security. Moreover, existing studies are mostly limited to the analysis of the impact of energy security to climate change³⁷.

Energy security, in contrast with high level of environmental protection or a right to a clean environment, currently is not regarded as an independent principle of law, but an independent concept at most (and a constitutive element of the national security at least). For this reason, when ensuring energy security, main principles of law must be followed and fundamental rights ensured. In this regard, it is important to analyse to what extent application of environmental principles may be restricted in case the need to ensure energy strategy arises. In the Lithuanian national security strategy, energy security issues are addressed in a more thorough way, compared to the protection of environment: in a case of energy security, not only principles, but also particular measures are listed; meanwhile, in case of environmental protection, only main principles are listed³⁸.

In addition, both in the national and the EU legislation, simpler rules, including on the environmental impact assessment are envisaged for the energy sector projects that have national or European importance and fulfil certain criteria regarding their importance, significance for the energy security, etc.³⁹. Thus, the situation may arise when during the evaluation of similar projects (e.g., LNG terminals in Portugal and in Lithuania), environmental protection will be weighed differently against energy security.

6. Environmental Protection vs Energy Security in the Context of the Exploitation of Unconventional Hydrocarbons

Exploitation of unconventional hydrocarbons' is one of the new energy industries in Europe. In the US, the so-called 'shale-boom' lead to lower gas prices for consumers⁴⁰, the same is expected to happen in Europe. However, the activity undoubtedly may have severe effects on the environment and

³⁵ CJEU Judgement C-72/83, *Campus Oil Limited*, 10 July 1984, ECLI:EU:C:1984:256, p. 51; CJEU Judgement C-503/99, *Commission v Belgium*, 4 June, 2002, ECLI:EU:C:2002:328, p. 45-47.

³⁶ EFTA Court Judgement E-2/06 *EFTA Surveillance Authority v The Kingdom of Norway*, 26 June, 2007, EFTA Ct. Rep., 2007, p. 164, see p. 81.

³⁷ See, for example: W.McCibbin, P.Wilcoxon, 'Energy and Environmental Security' [2007], Brookings Institution, online access: < http://www.brookings.edu/global/pubs/200702_01energy.pdf >, [last accessed 07-03-2015]; B.K.Sovacool, 'Environmental Issues, Climate Changes, and Energy Security in Developing Asia' [2014], Asian Development Bank Economics Working Paper Series, No 399; A.Bigano, M.Hafner, P.Criqui, 'Energy Security Through Environmental Sustainability: the SECURE Project' [2012], Review of Environment, Energy and Economics (Re3); European Commission, 'Macroeconomic impacts of shale gas extraction in the EU' [2014], DG ENV – Ref.: ENV.F.1/SER/2012/0046r.

³⁸ Law on The Basics of National Security of Lithuania, 19 December, 1996, VIII-49, Valstybės žinios, 1997, Nr. 2-16.

³⁹ Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009, OJ L 115, 2013, p. 39-75, see Art. 7-9 str.; Law on Energy of the Republic of Lithuania, 16 May, 2002, IX-884, Valstybės žinios, 2002, 56-2224.

⁴⁰ United States Department of Labor, 'The effects of shale gas production on natural gas prices' [2013], Vol 2/No 13. Online access: < <http://www.bls.gov/opub/btn/volume-2/the-effects-of-shale-gas-production-on-natural-gas-prices.htm> >, [last accessed: 07-03-2015].

its various elements⁴¹. Consequently, discussions on the impact of this activity on citizens' environmental rights arose, and this led to the need to perform a legal analysis of the abovementioned activity in the light of the environmental protection.

When analysing unconventional hydrocarbons' activities in the context of environmental rights, one needs to find a standard for such an evaluation. In this regard, the EU principle of high level of environmental protection may be taken as a basis. Thus, in order to make sure exploitation of unconventional hydrocarbons does not infringe environmental rights of citizens, one could evaluate whether the abovementioned principle is implemented in a proper way, when applying various pieces of the EU (or national) legislation to the exploitation activity. As stated in the previous part, the content of the principle itself is contentious and depends on many factors. First, the principle includes two other principles of the EU environmental law and policy: integration principle and precautionary principle. Integration principle means that environmental concerns must be taken into account when drafting any piece of the EU legislation. In the context of the exploitation of unconventional hydrocarbons, it is concluded that although most aspects of the activity are covered by the EU legislation⁴², some legal gaps remain. Among them: regulation of the flow back of the used fracking fluid, voluntary character of the environmental impact assessment⁴³. On the other hand, precautionary principle allows decision makers to take restrictive measures regarding potentially harmful activity or product even when there is a lack of definite scientific proof regarding such an impact⁴⁴. CJEU declared that in application of this principle, environmental interests should prevail over economic interests⁴⁵. However, in other instances the CJEU in its practice seems to contradict its own earlier judgements when applying the principle and evaluating scientific knowledge that lead to its application⁴⁶.

Similarly, EU Member States do not agree on the content of application of this principle for unconventional hydrocarbons activities: some countries ban (France, Bulgaria) or limit the activity, others allow the activity to be carried on (United Kingdom, Spain), both groups basing their decision on the application of the precautionary principle⁴⁷.

In the context of energy security, unconventional hydrocarbons are regarded not as a guarantee of energy independence, but rather as an alternative source of energy supply. Many authors, especially in the context of the Russian energy aggression, emphasize the latter element⁴⁸. In addition, the role of the unconventional hydrocarbons in ensuring low prices of energy resources (thus, increasing affordability of resources) may also not be forgotten⁴⁹.

Decisions of national courts could be one of the indicators when searching the balance between

⁴¹ M.Broomfield, 'Support to the identification of potential risks for the environment and human health arising from hydrocarbons operations involving hydraulic fracturing in Europe' [2012]. AEA report for European Commission DG Environment, Ref: ED57281, Issue Number 17c

⁴² For the list of the applicable EU legislation, see, e.g. M.Broomfield, supra 41; M.Altmann et al., 'Impacts of shale gas and shale oil extraction on the environment and on human health' [2011], European Parliament, IP/A/ENVI/ST/2011-07, PE 464.425.

⁴³ J.Urbanavičius, 'Aplinkosauginio skalūnų dujų gavybos teisinio reglamentavimo Europos Sąjungoje problematika' [Environmental issues of the EU legislation on shale gas extraction] [2013] Mokslo darbai. Teisė. Vol 87, 181-193.

⁴⁴ N. De Sadeleer, 'Environmental Principles: From Political Slogans to Legal Rules' (USA: Oxford University Press 2002), 75.

⁴⁵ CJEU Judgement T-74/00, T-76/00, T-83/00, T-84/00, T-85/00, T-132/00, T-137/00, T-141/00, *Artegoda GmbH and Others v Commission*, 26 November, 2002, ECLI:EU:T:2002:283, p. 184.

⁴⁶ Compare e.g. CJEU Judgement C-3/00 *Denmark v Commission*, 20 March, 2003, ECLI:EU:C:2003:167, and CJEU Judgement T-198/12 *Germany v Commission*, 14 May, 2002, ECLI:EU:T:2014:251.

⁴⁷ See, e.g., French law on the fracking ban: LOI n° 2011-835 du 13 juillet 2011 visant à interdire l'exploration et l'exploitation des mines d'hydrocarbures liquides ou gazeux par fracturation hydraulique et à abroger les permis exclusifs de recherches comportant des projets ayant recours à cette technique, JORF n°0162 du 14 juillet 2011 page 12217; on the other hand, see argumentation of the Spanish Constitutional Tribunal in judgements from 24 June, 2014, BOE-A-2014-7787, and 22 July, 2014, BOE-A-2014-8767.

⁴⁸ See, e.g.: G.Erbach, 'Shale Gas and Energy Security, Briefing' [2014], European Parliamentary Research Service, PE542.167; A.Goldthau, W.Hoxtell, 'The Impact of Shale Gas on European Energy Security' [2012] Global Public Policy Institute, GPPi Policy Paper No 14.

⁴⁹ A.Erbach, supra 48.

environmental protection and energy security. French Constitutional Council upheld a decision to ban this activity on the grounds of the application of precautionary principle⁵⁰. On the other hand, Spanish Constitutional Tribunal in a similar cases (although with slightly different circumstances) in principle concluded that the importance of the energy security interest prevails over environmental considerations⁵¹.

Thus, no clear conclusion can be drawn regarding the relationship between environmental protection and energy security in the light of the exploitation of unconventional hydrocarbons

Conclusion

Two main conclusions may be drawn from the analysis.

First, both environmental rights and energy security may be treated as higher value interests in the society. However, only environmental rights are entrenched in the constitutional level documents. In addition, environmental protection is given priority by courts over other interests. Thus, despite the importance of energy security may in exceptional circumstances be put to the first place, minimal environmental protection still has to be ensured.

In addition, neither energy security nor environmental protection have static content. Depending on the level of knowledge or technologies available, on geopolitical situation and on other factors, the proportion between the two interests may swing to either side. For this reason, it is not possible to find a universal measure for this relation. Nor the balance between the two may be based solely on legal arguments. Therefore finding such a balance and taking a final decision remains the issue of political will.

Bibliography

Books, articles:

1. M.Altmann et.al., 'Impacts of shale gas and shale oil extraction on the environment and on human health' [2011], European Parliament, IP/A/ENVI/ST/2011-07, PE 464.425
2. U.Beyerlin, T.Maruhn, 'International Environmental Law' (Oxford: Hart Publishing 2011)
3. A.Bigano, M.Hafner, P.Criqui, 'Energy Security Through Environmental Sustainability: the SECURE Project' [2012], Review of Environment, Energy and Economics (Re3)
4. S. Bogojevic, 'EU Human Rights Law and Environmental Protection: The Beginning of a Beautiful Friendship?' [2014, online] In: S.Douglas-Scott, N.Hatzis (eds.) EU Human Rights Law, (London: Edward Elgar Publishing). Online access: <<http://ssrn.com/abstract=2475334>>, [last accessed 07-03-2015].
5. M.Broomfield, 'Support to the identification of potential risks for the environment and human health arising from hydrocarbons operations involving hydraulic fracturing in Europe' [2012]. AEA report for European Commission DG Environment, Ref: ED57281, Issue Number 17c
6. European Commission, 'Macroeconomic impacts of shale gas extraction in the EU' [2014], DG ENV – Ref.: ENV.F.1/SER/2012/0046r
7. N. De Sadeleer, 'Environmental Principles: From Political Slogans to Legal Rules' (USA: Oxford University Press 2002)
8. G.Erbach, 'Shale Gas and Energy Security, Briefing' [2014], European Parliamentary Research Service, PE542.167
9. M.Fitzmaurice, 'Contemporary Issues in International Environmental Law' (London: Edward

⁵⁰ Conseil Constitutionnel. Décision n° 2013-346 QPC. Société Schuepbach Energy LLC [Interdiction de la fracturation hydraulique pour l'exploration et l'exploitation des hydrocarbures - Abrogation des permis de recherches], 11 October, 2013.

⁵¹ Supra 47.

- Elgarve 2009)
10. A.Goldthau, W.Hoxtell, 'The Impact of Shale Gas on European Energy Security' [2012] Global Public Policy Institute, GPPi Policy Paper No 14
 11. W.McCibbin, P.Wilcoxon, 'Energy and Environmental Security' [2007], Brookings Institution, online access: < http://www.brookings.edu/global/pubs/200702_01energy.pdf >, [last accessed 07-03-2015]
 12. A.Postiglione, 'Human Rights and the Environment' [2010] 'The International Journal of Human Rights', Vol. 14, No.4
 13. B.K.Sovacool, 'Environmental Issues, Climate Changes, and Energy Security in Developing Asia' [2014], Asian Development Bank Economics Working Paper Series, No 399
 14. S.Turner, 'A Substantive Environmental Right: an Examination of the Legal Obligations of Decision-Makers Towards the Environment' (Kluwer 2008)
 15. J.Urbanavičius, 'Aplinkosauginio skalūnų dujų gavybos teisinio reglamentavimo Europos Sąjungoje problematika' [Environmental issues of the EU legislation on shale gas extraction] [2013] Mokslo darbai. Teisė. Vol 87, 181-193
 16. H.Veinla, 'Determination of the Level of Environmental Protection and the Proportionality of Environmental Measures in Community Law' [2004, online], Juridica international, IX. p. 89-98. Online access: <<http://www.juridicainternational.eu/?id=12623>> [last accessed 07-03-2015]
 17. C.Winzer, 'Conceptualizing Energy Security' [2011], EPRG Working Paper 1123, CWPE 1151.
 18. D.Yergin, 'Ensuring Energy Security' [2006] Foreign Affairs, Vol 85 No 2
 19. I.Žvaigždinienė, 'Aplinkos apsauga žmogaus teisių kontekste' ['Environmental Protection in the Context of Human Rights'] [2011] Mokslo darbai: Teisė, Vol. 78, 152-167

Other materials:

20. Materials for the 61st Session of the United Nations Commission on Human Rights, Geneva March 2005, online access: http://earthjustice.org/sites/default/files/library/references/2005_ENVIRONMENTAL_RIGHT_S_REPORTrev.pdf [last accessed 07-03-2015]
21. International Energy Agency information [online]. Online access: <<http://www.iea.org/topics/energysecurity/>>, [last accessed 07-03-2015].
22. European Commission Communication 'Energy: European strategy for the security of gas supply. Green Paper', COM(2000)769, 1 December, 2000, not published in OJ
23. NATO's role in energy security [online], NATO, 13.08.2014. Online access: < http://www.nato.int/cps/en/natohq/topics_49208.htm >, [last accessed 07-03-2015].
24. European Commission Communication 'European Energy Security Strategy' 28 May, 2014, COM(2014)330, not published in OJ.
25. United States Department of Labor, 'The effects of shale gas production on natural gas prices' [2013], Vol 2/No 13. Online access: < <http://www.bls.gov/opub/btn/volume-2/the-effects-of-shale-gas-production-on-natural-gas-prices.htm> >, [last accessed: 07-03-2015]

Supranational legislation, international documents:

26. UN General Assembly, Universal Declaration of Human Rights, 10 December 1948, G.A. Res. 217, U.N.GAOR, 3rd Sess., Part 1, at 71, U.N. Doc. A/810 (1948)
27. UN Declaration on Environment and Development, June 14, 1992, U.N. Doc. A/CONF. 151/5/Rev.1 (1992).

28. European Parliament, Resolution of April 12, 1989 on fundamental rights and fundamental freedom [1989] OJ C120/51
29. Treaty on European Union, [2010] OJ C83/01
30. UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, 25 June, 1998.
31. Council Regulation (EEC) No 2618/80 of 7 October 1980 instituting a specific Community regional development measure contributing to improving security of energy supply in certain Community regions by way of improved use of new techniques for hydro-electrical power and alternative energy sources, OJ L 271, 1980, p. 23-27.
32. Council Regulation (EEC) No 218/84 of 18 January 1984 amending Regulation (EEC) No 2618/80, OJ L 27, 1984, p. 19-21.
33. Council Regulation (EC) No 2964/95 of 20 December 1995 introducing registration for crude oil imports and deliveries in the Community, OL L 310, 1995, p. 5-6
34. Presidency Conclusions of the Brussels European Council (19/20 March 2009). 2009.04.29, Nr. 7880/1/09 REV 1
35. Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, OL L 295, 2010, p. 1-22
36. Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009, OJ L 115, 2013, p. 39-75

National legislation:

37. Law on The Basics of National Security of Lithuania, 19 December, 1996, VIII-49, Valstybės žinios, 1997, Nr. 2-16.
38. LOI n° 2011-835 du 13 juillet 2011 visant à interdire l'exploration et l'exploitation des mines d'hydrocarbures liquides ou gazeux par fracturation hydraulique et à abroger les permis exclusifs de recherches comportant des projets ayant recours à cette technique, JORF n°0162 du 14 juillet 2011 page 12217
39. On the Approval of the National Energy Independence Strategy, Parliament of the Republic of Lithuania, XI-2133, 26 June, 2012, Valstybės žinios, 2012, Nr. 80-4149.
40. Law on Energy of the Republic of Lithuania, 16 May, 2002, IX-884, Valstybės žinios, 2002, 56-2224

Judgements:

41. CJEU Judgement C-72/83, Campus Oil Limited, 10 July 1984, ECLI:EU:C:1984:256
42. CJEU Judgement C-233/94, Germany v Parliament and Council, 13 May, 1997, ECLI:EU:C:1997:231
43. CJEU Judgement C-341/95, Gianni Bettati v Safety Hi-Tech Srl, 14 July, 1998, ECLI:EU:C:1998:353
44. CJEU Judgement C-503/99, Commission v Belgium, 4 June, 2002, ECLI:EU:C:2002:328
45. EFTA Court Judgement E-2/06 EFTA Surveillance Authority v The Kingdom of Norway, 26 June, 2007, EFTA Ct. Rep., 2007, p. 164
46. CJEU Judgement T-74/00, T-76/00, T-83/00, T-84/00, T-85/00, T-132/00, T-137/00, T-141/00, Artogodan GmbH and Others v Commission, 26 November, 2002, ECLI:EU:T:2002:283
47. CJEU Judgement C-3/00 Danmark v Commission, 20 March, 2003, ECLI:EU:C:2003:167

48. CJEU Judgement T-198/12 Germany v Commission, 14 May, 2002, ECLI:EU:T:2014:251
49. Conseil Constitutionnel. Décision n° 2013-346 QPC. Société Schuepbach Energy LLC [Interdiction de la fracturation hydraulique pour l'exploration et l'exploitation des hydrocarbures - Abrogation des permis de recherches], 11 October, 2013
50. Spanish Constitutional Tribunal, Judgement from 24 June, 2014, BOE-A-2014-7787
51. Spanish Constitutional Tribunal, Judgement from 22 July, 2014, BOE-A-2014-8767