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CoCoNet

Towards COast to COast NETworks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential.

Study of the legislative situation concerning MPAs and development of offshore wind farms

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Part 1. The Mediterranean Sea

Chapter 1. The European and international context in the promotion of renewable energies: the development of offshore wind farms

1.1 Challenges and opportunities

"The future must be prepared rather than envisaged (…), the world of tomorrow is already an idea in the present [1]."

Following the example of the historian, Mr. Baudin, *climatic upheaval, erosion of the biodiversity, increased demand for resources, food safety, demographic explosion, geopolitical migration*… are critical points, whose resolution will impact the world of tomorrow. Therefore it is important to consider new activities which relieve pressures on natural resources.

The issue of the offshore wind power in the Mediterranean arises in the context of energy transition, and developments of new renewable technologies.

From the legal perspective, there are two opposing sides in the debate:

1. Energy generation policies;
2. Environmental policies.

Even the 'green' energy label cannot disguise the issue of locating significant industrial activities in a fragile ecosystem. This new industry must find ways to sit alongside traditional activities and become compatible with the development of the marine protected areas (MPAs).

As recalled by Professor F. Féral [2]: "*in spite of the technical difficulties in relation to the great depth of the basin and the maritime over-frequentation, a new industrial pressure takes shape in favour of the wind fields at sea. This activity is also promoted as sustainable development and it is in phase with the energetic transition policies: the European Union supports this industry with the Inflow project which aims to the installation of a wind farm at sea of a power of 26 MW at the horizon of 2017. The floating wind farms seem to give the adequate technological answer for the exploitation of the wind fields in deep water, as those of the Mediterranean basin whereas the current technology does not allow the exploitation of the wind fields located beyond 40 m of depth. The wind floating farms allow the construction of wind farms of more important size, since the geographical space is vaster and less constraining. The cost of these farms is necessarily large due the terrestrial installations required on.*

Industrial pressure on the marine space in the Mediterranean is reinforced by the increasing technological developments. Therefore the developments already take place in an over-urbanized sea with the risk of contradicting the objectives of biodiversity conservation [3]."

[1] Mathieu Baudin, Le Monde, Hors Série- L'atlas du monde de demain, édition 2013, p.8- M.Baudin est historien et prospectiviste de formation; directeur de l'institut des futurs souhaitables (IFS), un think and do tank dont la vocation est de réhabiliter le temps long dans les décisions présentes et d'inspirer le débat public sur la question des futurs souhaitables.

[2] François Feral, Chapter 3 : The governance of MPAs in the Mediterranean, Deliverable D6.3

1.2 The international context of energy transition

1.2.1 The current situation

In December 2014, the UN held the 20th Conference of the Parties (COP20) which met to discuss the issues surrounding climate change. The Lima conference was the last stage before the Paris Climate 2015 conference to be held in December 2015. France was officially named as the host of the 21st conference on climate4 at the 19th Conference of the Parts at the Convention of the United Nations on Climate Change in Warsaw (COP19).

COP21 (also known as Paris 2015) will be one of the greatest international conferences organized in French territories.

The aim of this conference is to lead to an international agreement on climate change which will make it possible to limit the total level of warming to less than 2°C. On the basis of the work of COP20, it will be a question of reaching key decisions by December 2015. First of all, an ambitious and constraining agreement addressing the challenge of climate change will have to apply to all countries. Additionally, realistic individual national contributions will need to be agreed.

These negotiations, within the framework of the United Nations, were initiated by the Climate Convention of 1992 and ratified by more than 190 countries. These countries have been bound for 20 years by the framework of COP, which produced the Kyoto protocol in 1997 and the political agreement of Copenhagen in 2009.

In terms of concrete results, many[3] recall the shift from intention to action:

The fifth report of the Intergovernmental Panel on Climate Change (IPCC)[4] states that global greenhouse gas emissions have accelerated since 2000. This is based on data from energy consumption, in particular in developing countries which are increasingly using fossil fuels.

However, the quantity of unextracted fossil fuels exceeds levels that the atmosphere can absorb.

The developing countries, often under the influence of large developed countries such as the United States and Russia, can block the plans to reduce global emissions. This blocking is analysed as follows: *"most developing countries persist with the idea that they do not want to impose on themselves environmental constraints on the 21st century. However all nations must show solidarity, because the dangers which threaten the planet: climate change, exhaustion of resources, loss of the biodiversity, do not have, borders*[5]*."*

This solidarity is difficult to uphold as even developed countries continue to exploit fossil fuels in their own territories. In the Mediterranean, many geopolitical conflicts result from the discovery of

[3] Le Monde, 2014, op.cit.
[4] Intergovernmental Group of expert on the evolution of the climate
[5] Olivier Nouaillas, Environnement- La lente gestation d'une organisation mondiale, Le Monde, Hors Série- L'atlas du monde de demain, édition 2013- p.47

new resources on the borders of disputed Economic Exclusivity Zones (EEZ[6]). This leads to diplomatic tensions and a possible end to environmental co-operation.

Historical operations present a powerful force which is difficult to overcome, even when faced with unanimous scientific recognition of the urgent need to regulate. Today's societies have already gathered the assessments necessary to understand what needs to be preserved, but the speed at which the worldwide economy moves is slow: "*the damage of climate change is not taken into account in the values which are exchanged on the markets. The prices of coal, oil and gas reflect the relative scarcities of their reserves and the constraints of their transport and distribution. They do not integrate the scarcity of the atmosphere, this fine film surrounding our planet, which plays, via the greenhouse effect, a significant role in the balance of the climate* [7]."

1.2.2 Possible resolutions

The realization of this energy transition can only be achieved by a programme of concrete actions at the international level. These should control the fossil fuel market, protect the environment and develop renewable energy technologies. This is a question of national and political wills.

Carbon tariffs and a transcontinental carbon market

Economists recommend the integration of the price of carbon into the values being exchanged on the markets so that producers pay for the cost of associated damage. The challenge is to make this enforceable.

The tariffing of carbon has the authority to strongly influence the distribution of income at the international scale. The conference of Paris 2015 can have an impact on the current trajectories of the production of greenhouse gases. However, this will need very strong governance and should be independent of the lobbies which control these markets.

World governance of the environment

Since the Brundland report[8], sustainable development is recognized as being constructed on three pillars: the economic pillar, the social pillar and the environmental pillar[9]. In terms of representation by international institutions, the economic pillar is provided by the World Trade Organisation (WTO),

[6] Samuel Furfari, droit international « Les frontières maritimes en Méditerranée, aspects juridiques et enjeu énergétique », le 10/11/2013 JOL Press, http://www.jolpress.com/blog/frontieres-maritimes-mediterranee-aspects-juridiques-enjeu-energetique-furfari-822855.html

[7] C. Gollier, director of Toulouse School of economics (TSE), P.A Jouvet, professor at the university Western Paris Nanterre, C. of Perthuis, professor of economy Dauphine Paris university and member of the CEC, J. Tirole, president of the TSE and Nobel Prize of economy; le Monde, merc December 10th, 2014.

[8] **«** Le rapport Brundtland, 20 ans plus tard », Article de Harvey Mead, président de l'Union québécoise pour la conservation de la nature (UQCN)2008 *Cet article figure dans la réédition de "Notre avenir à tous", par les Editions Lambda, en 2005.* **www.adequations.org** ***› Nos Publications › Le "Rapport Brundtland"***

[9] Le Monde, Hors Série- L'atlas du monde de demain, édition 2013

the social pillar by the International Labour Organisation (ILO), with the environmental pillar remaining unrepresented.

From this, the concept of a worldwide organization of environment was born. This would have the mandate to manage the environment over and above the interests of individual countries or states, in the name of global wellbeing. According to the French ecologist N. Hulot[10], globalization of the economy prompts a globalization of the laws of the markets. To engage in a modernization process of the international institutions and to address these issues remains a challenge. This claim is supported by France, NGOs, environmental lawyers, EU member states and African states. It was presented at the last summit of the Earth conference in 2012 and received an unsatisfactory response. Afterwards, the Rio+20 presented a document entitled *The future we want*, which set out wishes to reinforce United Nations Environment Programme (UNEP) and to recognize it as the global authority on the environment (Article 88)[11].

The hopes of more significant achievements now rest on the Paris Conference in 2015.

Promotion of alternative energies

If the promotion of renewable energies aims to reduce the production of greenhouse gases and to lessen our dependence on fossil energies, two major constraints arise:

1. Inequalities of development

The transition to renewable energy cannot be completed by 2050. Disparities already exist in global consumption of electricity and projects of the Electricity Market Reform (EMR) are expensive, and demand a high level of upfront investment for research and development. This presumes a small association between science and technology in order to change the methods of production and the living conditions. However, "*the geography of the scientific and technical development reveals the appearance of a dual world. Indeed, about fifty countries (including Europe, the USA, and industrial Asia) concentrate today 95% of the expenditure of R & D, global scientific production and nearly all patent applications. […] in this this dual world, hundreds of countries do not have sufficient capacity to cope producing areas of knowledge. This will worsen the inequalities of development and the dialogue on the world's problems [12].*"

2. Insufficient international laws on regulation

The development of renewable energies, and in particular offshore wind farms (OWFs), which create new industries in the marine environment, reveal the limits of outdated regulations[13].

The risks resulting from these activities and technologies were non-existent, during the writing of the United Nations Convention on the Law of the Sea (UNCLOS). This extension of the energy exploitation into the marine environment, carries new technological solutions (e.g. floating wind

[10] L'utopie selon N. Hulot p.70, Le Monde, Hors Série- L'atlas du monde de demain, édition 2013
[11] La lente gestation d'une organisation mondiale, p.46- Le Monde, Hors Série- L'atlas du monde de demain, édition 2013
[12] Pierre Papon, Chaque civilisation aborde la modernité de façon spécifique, p.109- Le Monde, Hors Série- L'atlas du monde de demain, édition 2013
[13] Marie Laure Bonifassi, Montego bay, 30 ans après, cesm.marine.defense.gouv.fr /.../CESM%20**Montego**%20**Bay**-bonne%20...

farms), and generates a level of uncertainties and risks for marine environment which did not exist in the past.

"*If it is considered that the current international law is not even able to give unequivocal answers to the old questions of marine pollution such as those coming from the ships, one can legitimately doubt that emergences of second generation, although partially conceivable in the UNCLOS, are sufficiently regulated by the current international law*[14].

1.3 EU policy in the field of energy

Since 2000, the EU region has seen growth in renewable energy. In fact it is the first region to develop marine renewables[15].

For Europe, energy challenges and problems are old. The first need is to cope with the weakness of relying on external source of energy. The EU imports great volumes of coal, oil and gases from a range of sources. These sources often have although often have geopolitical complexities (e.g. Russia, the Maghreb and the Middle East). The North Sea countries have their own resources, but oil, as well as, gas reserves are quickly being used.

European countries with large-scale nuclear resources (e.g. France, Belgium and Sweden), coal power (e.g. Germany, Denmark and Poland) and even gas (e.g. Italy, Great Britain, Netherlands and Ireland), are all in search of renewable energy. The use of land-based wind farms is now popular in Europe. Marine wind farms are a more recent development and provide solutions to several problems: limited suitable terrestrial sites, the capacity to produce more consistent power and technical knowledge from the existing offshore industries[16].

As a legal basis, EU law is definitive. Article 194 of the treaty on the operation of the European Union states that: "*the policy of the Union in the field of energy aims at promoting the development of new and renewable energies".*

1.3.1 The White Paper on European energy [17]

The first European legislative package in favour of renewable energies is the Communication of the European Commission of November 1997 entitled *Energies for the future: sources of renewable energies - White paper establishing a strategy and a European action plan*. This document gave the starting point of the European mobilization by defining a minimum threshold (12%) for renewable production from total energy consumption by 2010.

[14] Gemma Andreone, « Les émergences environnementale et la stratégie de la sécurité maritime », Droit de la mer et émergences environnementales, cahiers de l'AssIDMer, editoriale scientifica, 2012, p. 55
[15] ISEMAR, les exploitations des espaces maritimes, note de synthèse 168, oct.2014
[16] ISEMAR, Les énergies marines renouvelables, quels enjeux maritimes et portuaires ? Note de Synthèse N°147, Septembre 2012
[17] Enermed, op.cit

1.3.2 The Directive of 27 December 2001

The Directive of 27 December 2001 (96/92/CE) regarding "the promotion of electricity produced from renewable energy sources" validates the target defined within the framework of the white paper of 1997.

The directive thus entrusts the European Commission with the mission "*of determining in which measurement the Member States achieved progress in the realization of their national indicative objectives, and up to what point the national indicative objectives are compatible with the total indicative objective of 12% of the rough domestic consumption of energy in 2010".* For this purpose, the Commission publishes a report every two years.

The directive also forces all the member states to obtain a legislative framework for the development of renewable energies.

1.3.3 The Climate and Energy Package: the 20-20-20 objectives[18]

The 20-20-20 objectives were adopted at the European Council meeting of 2007 and included the following three commitments:

1. To reduce greenhouse gas emissions by 20% compared to the level of emissions in 1990;
2. To improve energy efficiency by 20%;
3. To change the share of renewable energies to 20% of the energy consumption of the EU and 10% in the transport sector.

These objectives were taken again within the Climate and Energy Package adopted by the Council, and subsequently by the European Parliament (12 and 17 December 2008). This fixed the total energy consumption of EU countries at 20% by 2020 (instead of 7% currently).

1.3.4 Renewable Energy Roadmap [19]

In its communication of 10 January 2007 entitled 'Renewable Energy Roadmap: renewable energies in the 21st century: building a more sustainable future' (COM(2006)0848), a long-term strategy was defined for renewable energies within the EU up to the year 2020. The Commission proposed that the proportion of power consumption within the Union from renewable energy sources should be 20% by 2020; the proportion of biomass used in transport should be 10% by 2020, as well as the introduction of a new legislative framework. In 2007, at the time of the European Council meeting, the political leaders of the Union approved these objectives.

1.3.5 Directive on Renewable Energies [20]

The new directive on renewable energies adopted according to the co-decision procedure on the 23 April 2009 (directive 2009/28/CE, abrogating the directives 2001/77/CE and 2003/30/CE) fixed as a

[18] www.connaissancedesenergies.org *› Fiches pédagogiques › Pays et acteurs*

[19] Les Energies renouvelables- Parlement Européen- Fiches techniques sur l'Union européenne - 2014

[20] europa.eu › ... › Énergie › Énergies renouvelables et eur-lex.europa.eu

constraining objective that a share of 20% of energy consumption within the Union comes from renewable energy sources by 2020. The objectives were broken down into constraining national sub-objectives which take account of the disparity of the starting situations of the member states. Moreover, all the member states have to ensure that 10% of the fuels used in transport are from renewable sources by 2020. The directive also defined various mechanisms which the member states can apply in order to achieve their goals (i.e. aid systems, guaranteed origins, united projects, co-operation between Member States and third countries), as well as criteria of durability for biomass fuel.

With directive 2009/28/CE, Europe takes a turning and poses *"a kind of 'on-code', capable of transforming in-depth the energy policy of the States and their regulations*[21]*."* The most innovative measure is the harmonization of the legal procedures of the member states (article 13), in order to avoid significant disparities within the community, and forcing states to align their legislation.

It remains for Europe to convince the non-member states to share these standardizing visions.

But, it is a question of making a successful change to the worldwide fossil energy economy into overall strategies founded on renewable energies.

In 2010, the member states adopted national action plans for renewable energies. The Commission evaluated the projections of the member states against their objectives set for 2020 with regard to the share of renewable energies in 2011 (COM(2011)0031) and in 2013 (COM(2013)0175). The last report shows that the growth of renewable energies increased considerably and that most member states have reached their intermediate objectives, set by the directive of 2009. However, the majority of member states will have to make extra efforts to meet the objectives set for 2020. The latest available Eurostat figures indicate that renewable energies accounted for 14% of the energy consumption of the 28 member states of the EU in 2012.

The Commission has also drawn attention to a number of alarming factors with regard to future progress. These include: the variations of certain member states compared to their own national action plans as regards renewable energies; incapacity to eliminate certain administrative obstacles which slow down the adoption of renewable energies; recent modifications to the national modes of support for renewable energies; and slow transposition of the directive in to national law. The Commission has already instituted infringement proceedings against certain member states for non-transposition of the directive (particularly in the case of Poland and Cyprus) [22].

1.3.6 Marine energy and OWFs

Within the framework of the second strategic analysis of the energy policy carried out in November 2008, the Commission published, on 13 November 2013, a communication entitled *Offshore Wind Energy: Action needed to deliver on the Energy Policy Objectives for 2020 and beyond*

[21] RTA rapport 2010, *Développement des énergies marines renouvelables* : conditions de succès dans les régions du RTA de l'Arc Atlantique, p.68

[22] Les Energies renouvelables- Parlement Européen- Fiches techniques sur l'Union européenne - 2014

(COM(2008)0768) in order to promote the development of the marine and wind energy at sea in the EU.

On 20 January 2014, the Commission presented an action plan aimed at supporting the development of marine energy, in particular of surge energy and tidal energy or the energy produced by thermal energy conversion and the exploitation of the difference in salinity.

Role of the European Parliament[23]

The Parliament has always recommended the development of renewable energies and stressed the importance of setting objectives for 2020 and, more recently, for 2030. In February 2014, it adopted a resolution criticizing proposals presented by the Commission on the framework of energy and climate by 2030, for their short-termism and lack of ambition. It had wished for a target of 30% of energy consumed to come from renewable sources at EU level. This should be reached by the implementing objectives for each member state. These objectives should also relate to the fuels used in transport beyond 2020. In March 2013, the Parliament approved the roadmap for energy by 2050 and asked the Commission to present a framework of action for 2030 with intermediate and final objectives. These should relate to the gas emissions renewable energies and energy efficiency.

In the same month, it also adopted recommendations for the trans-European energy infrastructure suggested by the Commission. The Parliament particularly insisted on the importance of energy storage capacities and on the need for guaranteeing the stability of the European electrical communications by the integration of the renewable energy sources.

In May 2013, the Parliament adopted a resolution of the Commission of 6 June 2012 entitled 'Renewable Energy: a major player in the European energy market' (COM (2012) 0271). It recommended the setting of objectives from the present day to 2050 in order to give renewable energies a credible future in the European Union, with a specific objective for at least 30% of the total EU energy to come from renewable energies by 2030. It also emphasized the need for an integrated long-term strategy for promoting renewable energies at the level of the EU.

1.4 Environmental targets

'Conventional' fossil fuels (e.g. coal, oil, gas, etc) and 'unconventional' (e.g. tar sands, bituminous schists, schist gas, etc), as well as nuclear energy, currently represent more than 80% of the total energy consumed globally[24]*.*

Fossil fuels are now recognized to detrimentally affect the environment. Their combustion contributes massively to climate change due to emissions of carbonic gas. Furthermore, their exploitation is often characterized by negative impacts on local ecosystems. The offshore exploitation of oil and gas, in particular, has increasingly significant impacts. Most notably in the event of accidents related to the extraction and transport of these raw materials.

[23] europa.eu › ... › Énergie › Énergies renouvelables et eur-lex.europa.eu

[24] IUCN France (2014). Développement des énergies marines renouvelables et préservation de la biodiversité. Synthèse à l'usage des décideurs. Paris, France. P.8.

Nuclear energy raises concerns regarding security of power stations, of its radioactive dependence and waste disposal. There are also geopolitical risks for the principal supplying countries and issues relating to the depletion of these resources in the long term.

The challenge facing the development of renewable energies is to find a balance between the methods of production and improved environmental protection.

To achieve this goal, the IUCN states[25] that the use of renewable energies must be associated with policies centred on energy efficiency and reduced consumption.

Reducing the dependence on non-renewable resources and limiting the emissions of greenhouse gases are priorities within the framework of the fight against climate change. These emissions are a threat for biodiversity because, according to the report of the IPPC, an increase of +2°C would involve the risk of extinction of 30% of the world's species. Additionally, it is already possible to associate certain human migrations with climate change: by accumulating all the risks related to warming (e.g. melting of glaciers and permafrost, rise in sea level, degradation of coral reefs, increased cyclonic activity, increased rainfall, drought, fires, desertification, etc), an alarming revised map of the world can be drawn[26]. There is already the possibility of climate refugees for whom a legal status will have to be established.

1.5 Economic issues

1.5.1 Strong points of wind at sea

The winds at sea are generally more regular and powerful than on land, making it possible to generate up to 60% more energy than for an equivalent-sized land-based wind farm.

If harnessed, wind energy is more developed than other renewable energies because the technology is well understood and easily transposable from onshore to offshore.

However, even wind atlases, which evaluate local potential from strongly modelled estimates, require a lot of work to refine estimates [27].

1.5.2 Positive economic impacts

The wind energy sector generates large amounts of employment: in 2010, 11,000 individuals were employed in France in the land-based sector; with a total of 192,000 individuals in the whole of Europe. The development of an offshore industry would generate employment in the whole of Europe, as it is does for the leading countries in this field (i.e. Denmark, Great Britain and Germany). In only 10 years, a genuine offshore wind industry has developed in Germany around the port of Bremerhaven, using existing competencies particularly in the field of naval construction. This

[25] idem
[26] Réfugiés climatiques, Les Exilés du futur ; Le Monde, Hors Série- L'atlas du monde de demain, édition 2013, p.158
[27] Jacques Guillaume, « Le potentiel énergétique de l'océan mondial entre contraintes d'exploitation et enjeux de territorialisation »,*Géoconfluences*, 2014, mis en ligne juillet 2014

industry already employs more than 3,000 individuals in the manufacturing and assembly of components, and increased activities within the port and logistics[28].

1.5.3 Balancing costs

As for all emergent technologies, the question of the costs and depreciation arise for renewable technologies.

The first question is, will the cost of electricity be competitive with non-renewable sources. Following the failures of photovoltaic power there may be limited support for such sectors without first having fully considered the industrial return in terms of employment. Thus the official support for a technology is consolidated if it takes part in the constitution of a true sector of national production[29].

The economic 'maturity' and growth of renewable energies depends very strongly on the subsidies and other government aid that have been available over the last decade. This is generally determined using a cost–benefit calculation, corresponding more or less to the difference between the direct financial costs of the assistance, and the profit brought by renewable energies, in terms of emissions avoided and their equivalent in tons of oil. However, it appears that the terms of this cost–benefit calculation are not based on scientific fact and sometimes rely on dubious assumptions[30].

1.6 Ecological constraints and activity conflicts

1.6.1 OWFs: a controversial industry

The development of renewable energies seems today to be the object of strong political consensus in Europe. However it is unusual to see a new industry emerging which is so controversial.

The intensity of the debates is heightened by the convergence of three sectors: economic, environmental and politics. Each of these can be subdivided further: for example, economics can be subdivided into energy, industry, and maritime; environment into ecological benefits and impacts; and politics into public policies and legal framing.

In the Mediterranean context, territorial challenges add additional complexity partly explaining the slower development of renewable energies compared to Northern Europe.

As well as sectors, several agencies also interact. This makes governance of the renewables industry dubious and disputed:

"*The sharing of the responsibilities and of competences regarding the development of renewable energies is difficult to translate. In addition to the differing institutional contexts between countries,*

[28] Jacques Guillaume, op.cit

[29] Rapport de la mission d'étude sur les énergies marines renouvelables, Ministère de l'écologie, du développement durable et de l'énergie Ministère de l'économie et des finances Ministère du redressement productif Conseil général de l'environnement et du développement durable Conseil général de l'économie, de l'industrie, de l'énergie et des technologies N° 2013 / 008693-01 / CGEDD- mars 2013

[30] Enermed, op.cit

the framework of governance of renewable energies proves very complex. The energy strategies remain a sphere of competence largely controlled by the national authorities. Nevertheless, the strong territorial impact of these sectors often results in an important political weight being given to local and regional authorities. To these various public actors, the private operators are added, who can be represented, according to the sectors, by large industrial groups or a multiplicity of small actors (as it is the case for biomass energy). Lastly, the civil society and the local residents increasingly play an important role, mostly concerning planning applications for large-scale developments"[31].

1.6.2 The role of central government

In spite of the growing decentralisation of public authorities, central government continues to play a central role in the development of regional strategies for renewable energies. Additionally, the regional energy plans are typically determined by technological decisions made several decades before. The influence and competence of central government in the definition and implementation of renewable energy development policies is naturally strong in the countries with a tradition of centralization (e.g. France, Greece and Slovenia).

However, central government also has a leading role in decentralized countries such as Spain or Italy. In Italy, the most influential groups are the great ministries (e.g. economic development, agriculture and environment). In Spain, the national strategy remains the common starting point for regional strategies. In addition, the Central state only remains qualified to authorize developments of more than 50 MW[32].

1.6.3 The influence of local authorities

At the other end of the decision chain are the municipalities/local authorities which play a crucial and often ignored role in the governance of renewable energy development. Indeed, the local authorities are often the initiators, alongside industrialists, of large construction projects (e.g. photovoltaic, wind farms, power stations, etc).

For many observers, the influence of the local authority in the processes of governance of renewable energies constitutes a barrier to their development which should be removed. In Greece, law L3851/2010 made it possible to make significant adaptations to procedures, particularly in relation to the authorization of the installations. This also made possible to raise a certain number of barriers existing at the local level.

1.6.4 The role of private operators

Public decision makers, agencies and policies represent only one part of the decision and co-operation which continues until the production of renewable energy. At the other end of this chain is a multitude of private companies specialized in the production, installation and the exploitation of renewable energies. Within this 'private sphere', there are important differences between the sector of electrical production, which are strongly globalized and concentrated geographically, and the sector of heat production, which are often more decentralized and geographically dispersed.

[31] Enermed, op.cit.
[32] IDEM

1.6.5 The role of local citizens

The size of the environmental challenges relating to energy transition has developed the dialogue around of renewable energies in European countries. This results from a change in the lawful legislative framework, insisted upon at the international and European level, but also from an effective mobilization and an increased awareness of the European civil society around renewable energies. This mobilization takes on different forms depending on the countries and the territorial contexts, but very often reveals a deep 'crisis of citizen confidence' in the public policies with regard to the development of renewable energies.

One example is the opposition to developments in two regions in Italy.
Puglia, which has the advantage of good wind potential, has three potential projects, including two OWFs[33]. These projects have been opposed by the Italian population and the provincial government, on the ground of competition between marine activities.

The regional government of Sicily voted on 17 February 2012 against the authorization of licenses to install and operate OWFs. The negative effects highlighted by the environmental impact assessment on several projects, was given as the reason by the assessor to the Territory of the Giunta of Sicily, Sebastiano Di Betta: *"these projects would inevitably affect the core activities of our economy that are beach tourism, fishing and the quality sites."*

Three months before, the region of Puglia made a similar resolution, citing again the incompatibility of offshore projects with tourism. This time it was opposed in a statement that the operation of wind turbines three miles off the coast are "a *violence done to our country. We do not need sea monsters at our doors"*[34].

This loss of public confidence and subsequent opposition leads to questions of transparency in licensing procedures, the role of public debates and knowledge of the role of impact studies.

1.7 Environmental impact studies (EIAs)

Building an OWF is not without consequence on the marine fauna and flora. The use balance between applying the precautionary principle and the search for technological progress is a fine one: the marine environment is delicate, with often complex and particularly fragile ecosystems, as is the case in the Mediterranean.

Therefore, EIAs are an essential precondition to the development of these new technologies. However, the financial and energy returns for OWFs are not uniform. Uncertainty can enhance anxiety and only a precise knowledge of the risks makes it acceptable for the general population.

Partly, it would seem that acceptance is influenced by cultural factors:

"*It seems all the same that, in the most advanced countries in the development of the wind power, where the dialogue is also very widespread, the agreement of the populations is more easily given. However, it would be erroneous to think that the projects of wind farms are always received in open arms by the Danish or German populations. It is surely true that their systems of popular participation*

[33] " Les régions italiennes opposées à l'éolien offshore", www.econostrum.info, *22 fév. 2012.*
[34] idem

can facilitate the support of the population by getting new incomes. The new generations were born and were educated surrounded by terrestrial wind farms and the advantages of the offshore wind farms must appear more obvious to them. Especially, the need for these countries to reduce their carbon emissions seems to be determining. The current choices regarding energy policy of these countries are determined by their last choices (e.g. rejection of nuclear energy). In the same way, their capacities to install the wind farms relatively far from the shore, is an important solution to limit the resistance of the populations. Also, in Great Britain, the prospect for revitalizing industry towards blue energies (in the light of an imminent shortage of fossil energy in the North Sea) undoubtedly encourages the support of the population for renewable marine energies[35]*."*

Partly, the transparency, impartiality and relevance of investigations determine the acceptability and feasibility of the projects. The importance of the preliminary impact study and public consultations during these processes has been well demonstrated in order to obtain a consensus[36].

An important point is the differentiation of studies according to the sites under consideration. States may provide general background information on these issues but they cannot replace the regionally specific studies. Within the framework of the Mediterranean, it falls on coastal states to undertake the research on specific environmental questions.

As recalled by the IUCN, "*academic research on the environmental and ecological questions related to the development of the wind farms are mainly led in Denmark, in Germany, in the United Kingdom and in Sweden, and more recently in the Netherlands and in Belgium. However, most research programmes were launched only recently, and many contributions are limited to the development of methods of analysis of the impacts. Moreover, the majority of the studies carried out to date focused itself on particular species, and not on the whole of their ecosystem. One thus has little information concerning the effects on the whole ecosystems.*
This work revealed needs for additional research on certain topics, for example on the effects of the noise and the electromagnetic fields on various species, or on the mechanisms which bring the behaviours of avoidance, with an aim of developing suitable strategies of attenuation [37]."

The research on environmental impacts has the potential to improve the governance of maritime affairs. The Mediterranean ecosystem is recognized as being particularly fragile and is continuously being degraded in spite of the efforts made by the various States.

Over the last 30 years the actions taken are still insufficient, primarily because of the low political priority granted to the environment: "*one can affirm that the improvement of the governance of the*

[35] Camille Dagorne, **L'éolien offshore en Europe : état des lieux, politiques, impacts.** Mémoire de Séminaire "La construction européenne à la croisée des chemins : quelles orientations entre approfondissement et élargissement?" Sous la direction de : Laurent GUIHERY Université de Lyon Université lumière Lyon 2 Institut d'Études Politiques de Lyon, 2010

[36] **Agence des aires marines protégées,** Acceptabilité économique et sociale *Intégration des projets d'énergies marines renouvelables dans l'environnement humain* Sylvain Michel, chargé de mission« usages industriels et aménagements maritimes», service Protection et Usages du Milieu Marin **Conférence Marine Energy Brest, 14 octobre 2014**

[37] IUCN France (2014). Développement des énergies marines renouvelables et préservation de la biodiversité. Synthèse à l'usage des décideurs. Paris, France.

maritime affairs is a significant factor for a more durable growth of the area; (…)In this direction, we believe it is necessary to reinforce the states initiatives of marine protection (establishment of more protected marine areas, ecological zones…) as well as the creation of a new regional strategy to answer the various maritime challenges with which the Mediterranean basin is confronted [38]*."*

In a more positive move, the European Commission produced a communication to the Council and the European Parliament entitled *Towards an Integrated Maritime Policy for better governance in the Mediterranean* (COM/2009/466, 11 September 2009), whose objective is to address the various maritime challenges.

The arrival of a new industry is part of these challenges. Drawing up an inventory of the impacts is an important part of regional actions that need to be carried out in order to govern maritime activities as effectively as possible. From these investigations, a rigorous legal framework could emerge, within the context of the semi-enclosed seas and the extremely fragile environment.

In general terms, however, the IUCN[39] provides an exhaustive synthesis of the impact[40] on the fauna and the flora, with details of the operational phases of renewables: "*The study carried out by the French Committee of the IUCN evaluated the impact of the various existing technologies.*

The principal potential effects of renewable energy developments the marine environment evaluated the following: noise, loss or the modification of habitats, 'barrier' effect for the migrations, collision risks, disturbances related to electromagnetic fields, or dangers related to navigation for certain species… However, various mitigation measures can be put in work during construction, operation, maintenance and dismantling, in order to reduce the risks for local biodiversity. For example, by adapting the dates for construction, or by developing a design which integrates ecosystems processes.

However, different technologies have different impacts.

The development of sites with less impact on the environment is essential. However, it is advisable to continue to minimize the impacts of these technologies by continuously assessing and improving them. A lack of progress in this area should not constitute a brake, but push for further data and experiments."

In 2010 the IUCN developed an impact summary table[41] (see Tables 1.1 and 1.2).

[38] Victor Luis Guttiérrez Castillo, La protection de l'environnement marin en Méditerranée- Droit de la mer et émergences environnementales, cahiers de l'AssIDMer, editoriale scientifica, 2012

[39] IUCN France (2014). Développement des énergies marines renouvelables et préservation de la biodiversité. Synthèse à l'usage des décideurs. Paris, France.

[40] Cf : Synthèse bibliographique des impacts générés par les exploitations offshore sur les mammifères marins, GECC, MEDDE et DREAL Basse-Normandie, janvier 2011, qui traite des éoliennes offshore, des hydroliennes et des activités et Rapport de la mission d'étude sur les énergies marines renouvelables, Ministère de l'écologie, du développement durable et de l'énergie Ministère de l'économie et des finances Ministère du redressement productif Conseil général de l'environnement et du développement durable Conseil général de l'économie, de l'industrie, de l'énergie et des technologies N° 2013 / 008693-01 / CGEDD- mars 2013

Table 3: Key environmental issues of offshore wind energy

Key environmental issues		Level of certainty for predictions/ estimates (1 low to 5 high)	Estimated scale of impact n.a. = Not assessed			Discussed in section in Annexe 1
			Spatial	Temporal	Estimated degree of severity (-) or benefit (+) of impacts for species assemblages within the wind farm area	
FISH	Injuries from sound pulses (construction)	3	Local	n.a.	Small (-)	7.1
	Displacement/habitat loss (construction)	3	Very broad	Short term	(-) *see* 4.2.2	7.3
	Sediment dispersion (construction)	4	Broad	Short term	Small (-)	4
	Disturbance from operational noise	4	Very local	Long term	Small (-)	7.6
	Trawling exclusion	5	Broad	Long term	Large (+) *see* 4.2.3	3.3
	Artificial reef effects	3	Local	Long term	Moderate (+) *see* 4.2.3	3.3
	Electromagnetic fields	2	Local (but *see* migrating fish)	Long term	Small (-) (but *note* level of certainty and *see* migrating fish)	8.1
	Collisions with turbines	2	n.a.	n.a.	Small (-)	3.4
	Noise masking bioacoustics	2	Local	Long term	Small (-) (but *note* level of certainty)	7.9
MARINE MAMMALS	Injuries from sound pulses (construction)	3	Local	n.a.	Small (-) but *see* 4.2.2	7.1
	Displacement/habitat loss (construction)	3	Very broad	Short term	(-) *see* 4.2.2	7.2
	Displacement, disturbance (operation)	3	Very local	Long term	Small (-)	7.7
	Habitat enhancement	1	Broad	Long term	Small (+) (but *note* level of certainty)	3.3
	Migration barriers	2	n.a.	Long term	Small (-) (but *note* level of certainty and extra caution for whales), and *see* 4.2.3	7.9
	Collisions with turbines	2	n.a.	n.a.	Small (-)	3.4
	Noise masking bioacoustics	2	Local	Long term	Small (-) (but *note* level of certainty)	7.9

Table 1.1 Key environmental issues of offshore wind energy for fish and marine mammals

[41] Wilhelmsson, D., Malm, T., Thompson, R., Tchou, J., Sarantakos, G., McCormick, N., Luitjens, S., Gullström, M., Pa erson Edwards, J.K., Amir, O. and Dubi, A. (eds.) (2010). Greening Blue Energy: *Identifying and managing the biodiversity risks and opportunities of off shore renewable energy.* Gland, Switzerland: IUCN. 102pp.

Key environmental issues		Level of certainty for predictions/ estimates (1 low to 5 high)	Estimated scale of impact n.a. = Not assessed			Discussed in section in Annexe 1
			Spatial	Temporal	Estimated degree of severity (-) or benefit (+) of impacts for species assemblages within the wind farm area	
BIRDS	Displacement/habitat loss (construction)	5	Very broad	Short term	(-) *see* 4.2.2	9.3
	Displacement/habitat loss for seabirds (i.e. sea ducks and divers) (operation)	4	Very broad	Long term	(-) *see* 4.2.3	9.3
	Migration barriers (operation) 1. long distance migrators 2. daily commuters	3	n.a.	Long term	1. Small (-) 2. Moderate (-) *see* 4.2.3	9.2
	Collisions with turbines	3	n.a.	Long term	Small (-) but *see* 4.2.3	9.1
BENTHOS	Sediment dispersion (construction)	3	Broad	Short term	Small (-)	4
	Acoustic disturbance (construction)	2	Local	Short term	Small (-) (but *note* level of certainty)	7.4
	Changes in community structure directly due to turbines	4	Local	Long term	Small to Moderate (-) *see* 4.2.3	3.1 & 5
	Electromagnetic fields	2	Very local	Long term	Small (-) (but *note* level of certainty)	8.2
	Anoxia created	4	Very local	Long term	Small (-)	5
	Habitat enhancement (not considering trawling exclusion)	4	Very local	Long term	n.a.	3.1
	Entry point for invasive species	2	Very broad	Long term	n.a.	3.2
	Effects of trawling exclusion	5	Broad	Long term	Large (+) *see* 4.2.3	3.1
HYDROLOGY	Depletion of phytoplankton	4	Local	Long term	Small (-)	5
	Upwelling or downwelling at the perimeter of wind farm	1	Local	Long term	Small (+/-) (but *note* level of certainty)	5
	Toxic substances	4	Local	n.a.	Small (-)	6
	Oil spills (e.g. ship accidents)	-	n.a.	n.a.	(-) *see* 4.2.3	
SEA TURTLES	Displacement/habitat loss (construction)	2	Very broad	Short term	(-) *see* 4.2.2	7.1 & 7.8
	Displacement/habitat loss (operation)	2	Very local	Long term	Small (-) (but *note* level of certainty) *see* 4.2.3	7.8

Table 1.2 Key environmental issues of offshore wind energy for birds, sea turtles, the benthos and hydrology

1.8 Competition for space and resources

Besides the environmental problems, the development of new activities inside the marine waters of the EU inevitably leads to increasing competition, and to conflicts of use between traditional users and new entrants. The search for space thus requires increased dialogue between all the users: fishing, navigation, defence, tourism, extraction, offshore oil rigs, renewable energies, protected areas, etc. These problems are well known in the medium of the renewable energy with the emergence of the concept of marine spatial planning (MSP). This has developed in the wake of the EU Directive 2008/56/CE, and of the Recommendation of the Parliament and the European Council relating to the implementation of a strategy for an integrated management of coastal areas in Europe.

Directive 2008/56/CE of the European Parliament and of the Council of 17 June 2008 establish a framework for community action in the field of marine environmental policy known as Marine Strategy Framework Directive (MSFD).

The MSFD adds a layer of complexity, in an otherwise creditable goal to align the various marine policies. It also integrates environmental concerns in other policies, related to conflicts of use with the 'first occupiers'.

According to the general forecasts, maritime activity should intensify in the Mediterranean both in the development of renewable energies and also in sea traffic and tourism. The industrial activities related to harbour functions and the progression of urbanisation are unavoidable. This puts increasing anthropogenic pressures on the natural environments[42] and increases competition in the search for available maritime space.

According to the European Commission, the population and economic growth of the Mediterranean basin, under conditions compatible with the realization of an ecologically good state, could be better exploited through MSP: "*The MSP constitutes an effective tool of governance to implement management based on the ecosystems, treating the interdependent incidences of the maritime activities, the conflicts related to the various uses of space and the safeguarding of the marine habitats. The roadmap of the Commission of 2008 establishes principles relating to the development of approaches of MSP by the Member States and can also appear useful in the broader context of the Mediterranean*[43]*."*

However, MSP practices in the Mediterranean remain insufficient, undoubtedly because of the difficulties which surround the institution of maritime zones and the delimitation of borders; but also because of the opportunism of the coastal states and the difficulty in making fast decisions according to concerted methods and on multiple scales (i.e. corporate, local, regional, national, European and international).

The example of the Gulf of Lions underlines the complex challenges of delimitation of borders and, at the same time, stark consequences, of the environmental co-operations and on the prospects for offshore exploitations:

"Demarcated from West to East, the land frontier between Spain and France ends at boundary stone 602, located on the Mediterranean coast and beyond along which no maritime boundary has so far been established. A historical conflict has existed since the 1970s, and the situation has not prevented both States from developing excellent neighbourhood relations. However, new challenges have recently emerged and prospects for oil and gas development have changed the context and led to the materialization of a maritime delimitation dispute *(I), resulting from a double proclamation of exclusive economic zones in 2012–2013. Indeed, these new EEZs appear to be a kind of institutional diversion, specific to the Mediterranean, corresponding to* offshore *strategies, developed in the present prospect of a future maritime delimitation (II). It will be all the more complex to carry out that all maritime areas are concerned, while both States have argued for decades antagonistic positions, legally irreconcilable, and that a judicial settlement appears highly unlikely. If the subsoil of the Gulf of Lions does not keep its promises, the delimitation certainly won't be so necessary, but otherwise a*

[42] Voir a ce propos rapport de l'UNEP, Le milieu marin et littoral méditerranéen : Etat et pressions, Résumé. AAE, Copenhague, 1999

[43] Commission des communautés européennes, communication de la commission au conseil et au parlement européen, *Pour une meilleure gouvernance dans la Méditerranée grâce à une politique maritime intégrée*, COM (2009), 466 final, p.7

compromise solution will have to be found in the future ; in the future, France may also have to negotiate with a new State, the independent and exclusively Mediterranean, Catalonia...[44]*."*

It is crucial to promote co-operation between states to be able to combine the development of the MPA networks, OWFs and oil rigs with the traditional activities.

To these ends, in July 2014, the European Parliament and the Council adopted a legislation aimed at creating a common framework for the planning of maritime space in Europe [45].

The commission *is pleased with this adoption and premise that the following stages are: Once adopted by the ministers, the directive must be transposed by the Member States in their national legislation by 2016 and the competent jurisdiction responsible for the implementation of the planning of maritime space must be indicated. The Member States must also establish their national plans for the planning of maritime space by 2021. They are free to adapt the contents of the programmes and of the strategies at their economic, social and environmental priorities, with the goals of their national sectoral policies and with their legal traditions but they must respect the minimal requirements of the directive* [46].

[44] Abstract of the doctrinal article of Natahalie ROS, **Au-delà de la borne 602 : la frontière maritime entre l'Espagne et la France en mer Méditerranée,** Revue trimestrielle LexisNexis JurisClasseur - J.D.I., Octobre-Novembre-Décembre 2014

[45] Voir MEMO/14/313: questions et réponses concernant la directive sur la planification de l'espace maritime.
• Planification de l'espace maritime:
http://ec.europa.eu/maritimeaffairs/policy/maritime_spatial_planning/index_fr.htm

[46] European Commission, Press release April 17th, 2014, the Commission is pleased with the adoption by the Parliament of the legislation on the planning of maritime space.

Chapter 2. The legislative context of OWF development in the Mediterranean

2.1 Promotion of renewable energy and development of OWFs

Opinions towards OWFs differ according to regions, energy requirements and policies. They also vary significantly between southern and northern Mediterranean countries.

In the southern Mediterranean countries, population growth, the rate of urbanisation and socio-economic development result in growing energy demands, especially for electricity.

In the northern Mediterranean countries energy demand is more stable and the proportion of renewable energy is increasing. It should be noted that in the Mediterranean region, climate change will probably result in a reduction in water resources and, as a result, hydro-electric potential. In parallel, there is likely to be an increase in demand for electricity powered air conditioning.

There are also conflicts between the promotion of renewable energy and geopolitical tensions arising from the intent of countries to exploit the last remaining marine fossil resources. These conflicts prevent co-operation between countries and result in a low priority being given to transition to renewable energies[47]. Another weakness is the disparity in the different choices made by EU member states, in a sector where policies are decided mainly at the national level [48].

All in all, hydrocarbons will remain the predominant energy source for the next 20 years, while petroleum production on a world level should start to decrease by 2020–2030. Facing this decline, deep offshore oil exploitation of, currently limited by cost and environmental impacts, will become a challenge for oil companies. Considerable reserves exist, in particular, in the Eastern Mediterranean. These resources are likely to be very strongly coveted in the short term. Environmental constraints will also push marine renewable energies to develop. Initially this will be based on offshore wind power, as thermal energy and biomass technologies develop. Other energy source, such as those generated by tides, currents and waves are still restricted by technological developments[49].

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[47] François Bafoil et Laurent Baechler « Autour de la ressource énergétique : dépendances, conflits et règles dans l'Union européenne et en Asie », 09/2014 : Les dossiers du CERI, *sciencespo.fr/.../autour-de-la-ressource-**energetique**-dependances-conflits...*

[48] François Bafoil & Gilles Lepesant (avec Rachel Guyet et Kamila Waciega), 2013, *Energies renouvelables : les biomasses, l'éolien, le solaire. Stratégies nationales, structuration des réseaux et innovations en Grande-Bretagne, France, Allemagne, Pologne*, Rapport pour la Caisse des dépôts et consignations.

[49] Atelier de Réflexion Prospective (ARP) MERMED : Adaptation aux changements environnementaux en mer Méditerranée : Quelles recherches et quels partenariats ? Synthèse des fiches prospectives :
Le bassin méditerranéen à l'horizon 2030 : Quels défis à relever pour la mer Méditerranée ?, février 2014, *www.agropolis.fr/.../**mermed**-synthese-fiches-prospectives-septembre-2014....*

2.2 Overview

Northern Mediterranean states are increasingly developing renewable technologies.

European initiatives have been followed by the member states adopting renewable energy strategies. These have progressed quickly from a marginal position in public policies, to a much more central position. Policies to support renewable energies address diverse expectations of the states and appear to provide a multifaceted answer to the challenges facing the Mediterranean countries, whether they be energy, economic, social or environmental[50].

If energy policies depend on the central power of the states, the administratively decentralized countries can have issues developing offshore wind power. Some municipalities, for example in France and Italy, have been opposed to proposed OWFs along their coast. This raises the question of acceptability of projects by local communities. Sylvain Michel from the French MPAs agency identifies three keys to social acceptability: consultation, information and participation[51].

The voluntary actions of the member states towards developing renewable energies addresses an obligation arising from European commitments: Directive 2009/28/CE. This is an essential component of the Climate Energy Package adopted by the EU which envisages a framework of transposition at a national level. Thus, member states must set up a National Action Plan of Renewable Energies, which fixes the share of energy produced from renewable sources and consumed in transport. However, these plans are extremely complex and involve many political issues[52].

To achieve these objectives it is necessary to support the development of renewable energies and develop measurements of energy efficiency[53].

2.2.1 Principal administrative tools[54]

Regions have various management tools to assist in renewable developments. The first of these tools is administrative policies (e.g. EU Directives) but they also often use an agency with specialized knowledge in this field.

2.2.2 Cross-regional management[55]

[50] Enermed, les regions mediterraneennes et le developpement des energies renouvelables *Version finale, Document élaboré par Vincent Wallaert, Institut de la Méditerranée* *avitem.org/.../**ENERMED**-Energies-Renouvelables-**Mediterraneennes**-*

[51] **Agence des aires marines protégées,** Acceptabilité économique et sociale *Intégration des projets d'énergies marines renouvelables dans l'environnement humain* Sylvain Michel, chargé de mission« usages industriels et aménagements maritimes», service Protection et Usages du Milieu Marin **Conférence Marine Energy Brest, 14 octobre 2014**

[52] Régions et énergies renouvelable – le rapport ENERMED ...
*www.ins-med.org/.../**regions**-et-energies-renouvelable-le-rapport-**enerme***

[53] UICN, 2014

[54] Enermed, op.cit

[55] Enermed, op.cit

Regional communities play a significant role in the governance of renewable energies. This is particularly the case in France, Italy and Greece, where the implementation of regional policies on renewable energies is often accompanied by consultation and cross-cutting with regional policies.

2.2.3 Regional agencies and other dedicated tools[56]

The creation of specialized agencies for renewable energies has been a global practice for 20 years. It has been driven by a desire to hand control of public services to independent organizations, free from political and economic interests.

In the southern Mediterranean countries, renewable energy policies are typically led by the government department responsible for energy. In some countries, this activity is complemented by the energy regulatory authorities (e.g. Algeria, Egypt, Gaza/West Bank, Israel and Jordan; see Table 3) as well as the agencies responsible for the promotion of renewable energies (e.g. in all countries apart from Israel and Lebanon; see Table 2.3)[57].

Country	Ministry	Renewable energy agency	National electricity operator	Energy regulatory authority
Algeria	MEM	NEAL	SONELGAZ	CREG
Egypt	MEE	NREA	EEHC	ERA
Gaza/West Bank	MENR	PEA	GEDCo	PENRA
Israel	MNI	No	IEC	PUA
Jordan	MEMR	NERC	NEPCO	ERC
Lebanon	MEW	No	EDL	LCEC
Morocco	MEMEE	ADEREE MASEN	ONE	No
Syria	MoE	NERC	PEEGT, PEED	No
Tunisia	MIT	ANME -STEG EN	STEG	No

Source: Observatoire Méditerraéen de l'Energie.

[56] Enermed op.cit

[57] Outlook for Electricity and Renewable Energy in Southern and Eastern Mediterranean Countries, Manfred Hafner, Simone Tagliapietra and El Habib El Andaloussi, MEDPRO Technical Report No. 16/October 2012

Table 2.3 Table of government departments, national agencies, energy companies and regulatory authorities responsible for renewable energies in the countries listed

Renewable energy agencies implement policies of national government. To be effective, this cannot be conducted either by those responsible for renewable energy policies (ministries) or by those in distributing electricity services (utility companies). The former are typically characterised by lengthy and heavy procedures, which prevent the smooth and flexible implementation of renewable energy policies. The latter may face a conflict of interest as they are concerned with the reduction of costs and the generation of profits. Therefore, independent renewable energy agencies are the best guarantee for the successful implementation of renewable energy policies.

The role of an energy regulatory authority is to prevent political bias in the implementation of energy policies. Regulatory agencies are legally independent from ministries and are impartial decision-makers responsible for the enforcement of contracts and the quality of service standards[58].

During the last two decades, southern Mediterranean countries[59] have developed different institutional schemes for the promotion of renewable energies. Approaches differ from country to country but the majority of them have moved towards more ambitious objectives in terms of renewable energy development. Public initiatives, such as the Mediterranean Solar Plan (MSP), and private programmes, (DESERTEC or Medgrid) have contributed to this trend.

Almost all the countries have either passed legislation regulating the renewable energy sector or are in the process of approval. Nevertheless, incentives for the development of renewable energies are limited[60].

However, for these southern countries there is often a deviation between the potential of the country, the legislative framework and investments in research and development.

2.2.4 Floating wind mills: The future for wind power in deep waters and the Mediterranean Sea?[61]

Currently offshore wind energy is the only marine renewable marine energy which is in large scale production. However, existing OWFs consist solely of fixed turbines.

[58] Enermed, op.cit

[59] Outlook for Electricity and Renewable Energy in Southern and Eastern Mediterranean Countries, Op.cit

[60] Example of Morocco, Etude sur le cadre organisationnel,institutionnel et législatif pour la promotion des Énergies Renouvelables Rapport préfinal – Version longue Juillet/Décembre 2007

[61] Rapport de la mission d'étude sur les énergies marines renouvelables, Ministère de l'écologie, du développement durable et de l'énergie Ministère de l'économie et des finances Ministère du redressement productif Conseil général de l'environnement et du développement durable Conseil général de l'économie, de l'industrie, de l'énergie et des technologies N° 2013 / 008693-01 / CGEDD- mars 2013

One of the advantages of floating turbines is they can be located further offshore and do not incur the costs of building foundations. The cost of foundations for OWFs increases with the depth. Currently technology is not advanced enough to build fixed turbines at depths greater than 50 m. Floating turbines may be a solution to this.

This technology may be particularly suited to the French coast and its overseas territories. In these areas the coastal shelf is very narrow and descends to great depths in a relatively short distance from the coast (Figure 2.1). This situation is very different from that of the North Sea which is relatively shallow. This is the region where most European wind farms are located (i.e. Germany, Denmark and Great Britain)[62].

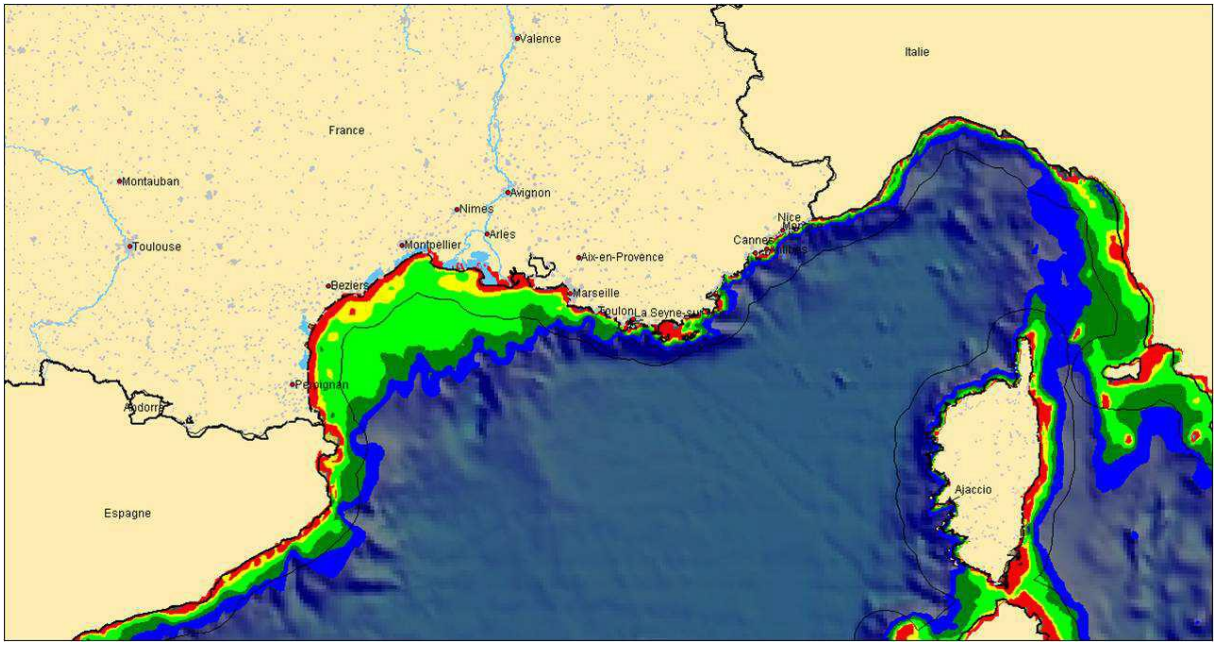


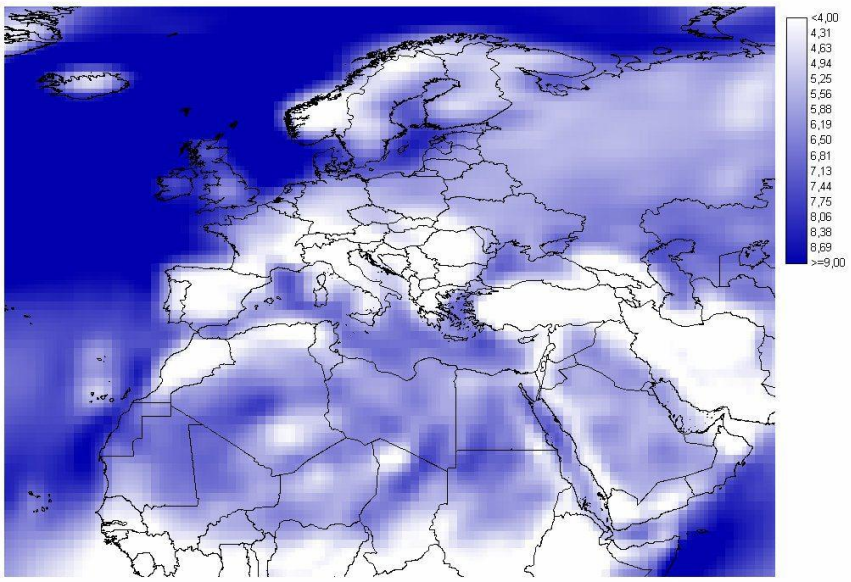
Figure 2.1 French coastal zone and bathymetry

The central Mediterranean sea has strong winds, fewer currents and less swell than the Atlantic. There are also deep areas close to the coast which are potentially suitable areas for floating OWFs.

In terms of wind potential, areas in Tunisia (the northern Cap Bon zone), Egypt, Morocco and Gibraltar provide suitable conditions for OWF developments[63] (see Figure 2.2).

[62] Rapport de la mission d'étude sur les énergies marines renouvelables, Ministère de l'écologie, du développement durable et de l'énergie Ministère de l'économie et des finances Ministère du redressement productif Conseil général de l'environnement et du développement durable Conseil général de l'économie, de l'industrie, de l'énergie et des technologies N° 2013 / 008693-01 / CGEDD- mars 2013

[63] Outlook for Electricity and Renewable Energy in Southern and Eastern Mediterranean Countries, Op.cit



Source: DLR (www.dlr.de).

Figure 2.2 Mean wind velocity across the Mediterranean region

2.3 Inequalities and constraints of licensing procedures: a case study from France

In France[64] there are no specific guidelines relating to OWFs. Therefore inappropriate terrestrial procedures are used as a proxy. There is no general framework which controls activities at sea, but rather a superposition of several complex legal procedures. This legal approach fails to delimit the boundaries of the various French administrative entities concerned, namely: commune, department, region and state.

As a result OWF developments must simultaneously satisfy the obligations imposed by the Code of the Environment (articles L553-2 relating to wind turbines, L414-4 for Natura 2000 sites, and L214-1 with L214-6 The Law on Water) and the Code of Town planning. Specific procedures relating to authorizations are dealt with by the Marine Public Domain (MDP). Each of these regulations require separate EIAs to be carried out.

This process is administratively complex and accompanied by excessively long periods of preparation, especially with regard to test site and pilot OWFs. Additionally, the process involves a large number of specialized engineering services, each responsible for different aspects of MDP management.

[64] Rapport de la mission d'étude sur les énergies marines renouvelables, Ministère de l'écologie, du développement durable et de l'énergie Ministère de l'économie et des finances Ministère du redressement productif Conseil général de l'environnement et du développement durable Conseil général de l'économie, de l'industrie, de l'énergie et des technologies N° 2013 / 008693-01 / CGEDD- mars 2013

Conversely, the complexity of the system ensures integrated management of coastal areas, in close dialogue with the stakeholders. This guarantees a balance between all uses (i.e. fishing, tourism and environmental protection of fauna and flora, etc).

This French example (see Figure 2.3) shows the high level of complexity within national legislation. This is often the result of historic legislations, administrative cultures, and is largely dominated by central government.

The simplification of the administrative procedures is a recurring theme at both European and national levels. Thus, the European directive 2009/28/CE is dedicated to the legal aspects of renewable energy installations.

Despite the need for simplification, the French example demonstrates the importance of creating a specific process for the development of renewable energies at sea.

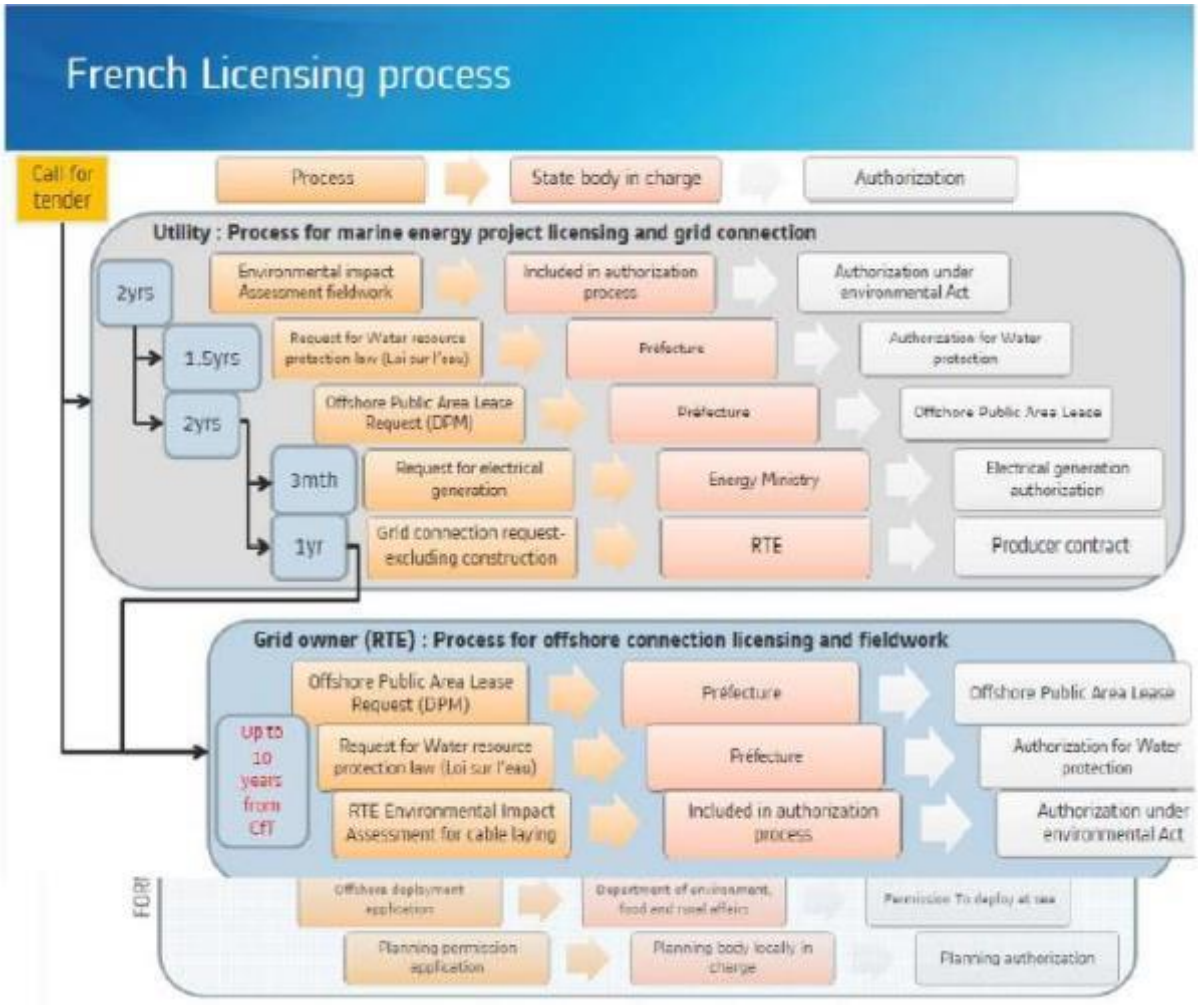


Figure 2.3 Diagram illustrating the complexity of the French licensing procedure

Most legal dispositions are transposed from laws relating to terrestrial developments and are poorly adapted to the challenges of the marine environment. They constitute a potentially inexhaustible source of dispute, which is detrimental to the development of renewable marine energies[65].

In the same way, some studies underline the weakness of the rules of UNCLOS [66]. The rules concerning the development of offshore wind power, contained in the UNCLOS, seem to be poorly adapted to cope with technical and political evolutions of the use of the seas and the oceans in the future.

From this point of view, it is necessary to update legislation, in particular regarding offshore issues, renewable marine energies, artificial islands, and installations at sea.

It is difficult to reconcile the various elements constituting offshore exploitation in the 21st century within the terms of UNCLOS. There now are now a multitude of activities which are called, without irony, 'floating islands'.

2.4 Geographical and geopolitical constraints to OWF developments: a case study from Spain

Successful integration of environmental demands in a changing political and economic context is a significant difficulty facing OWF developments in the Mediterranean basin.

Despite many private and public initiatives, the Barcelona Convention remains ineffective due to a lack of collaboration. An urgent commitment is required to develop such collaborations. The region should be more open to integrated development, based on safeguarding natural resources, the valorisation of assets and regionally specific social and territorial cohesion[67].

The Spanish case study[68] and the example of the Strait of Gibraltar underline the influence of geopolitics and economic constraints on the planning OWFs in relation to environmental impacts[69].

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[65] Rapport de la mission d'étude sur les énergies marines renouvelables, Ministère de l'écologie, du développement durable et de l'énergie Ministère de l'économie et des finances Ministère du redressement productif Conseil général de l'environnement et du développement durable Conseil général de l'économie, de l'industrie, de l'énergie et des technologies N° 2013 / 008693-01 / CGEDD- mars 2013

[66] « **l'exploitation des énergies marines renouvelables entre liberté de navigation et protection de l'environnement marin analyse de la CNUDM sous un angle culinaire »**
Gwendoline Gonsaeles* *professeur à l'université d'anvers (ua) professeur à l'ecole supérieure de navigation d'anvers et à l'institut pour l'hydrographie (hzs) chercheur scientifique sr. auprès le département de droit international public de l'université de gand conseillère juridique auprès l'agence pour les prestations maritimes & côtières (gouvernement flamand).* éditions A.Pedone. 2014 - www.pedone.info

[67] Atelier de Réflexion Prospective (ARP) MERMED : Adaptation aux changements environnementaux en mer Méditerranée : Quelles recherches et quels partenariats ? Synthèse des fiches prospectives :
Le bassin méditerranéen à l'horizon 2030 : Quels défis à relever pour la mer Méditerranée ?, février 2014, *www.agropolis.fr/.../**mermed**-synthese-fiches-prospectives-septembre-2014....*

[68] Presented by Prof. Victor Luis Guttirez Castillo, Coconet Workshop, D 8.1.12

It has been proposed that the global economic crisis changed the vision states concerning the marine environment. In parallel, the legal framework established by the EU and other international legal regimes for the protection of the marine environment gives much room for member states putting economic objectives before environmental considerations[70].

The legal status of the Mediterranean straits highlights the difficulties concerning potential OWF developments. These areas can have complex economic, geopolitical, geographical and ecological issues. This case highlights the need to obtain comparable data for all Mediterranean coasts.

Figure 2.4 Map of Spain

In Spain, the regulation governing new technologies is complex and confusing. The State has overall control, but autonomous communities and departments are also involved in the decision-making process.

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69 The Environmental Protection Regimes Governing Maritime Renewable Energies in the EU and their Implementation in the Marine and Coastal Areas of the South of Spain- Víctor Luis Gutiérrez Castillo, Juan García Blesa Spanish yearbook of international law, ISSN 0928-0634, Nº 17, 2011-2012

70 idem

The legal regime consists of: the national statute 22/1988 of 28 July 1988 (governing the Spanish coastal areas; see Figure 2.4); the Regulation of 1 December 1989 (developing the national statute 22/1988; Real Decreto 1471/1989); the national statute 9/2006 of 28 April 2006 (on the Strategic Environmental Assessment; SEA); the national statute RD Legislativo 1/2008 (on Environmental Impact Assessments; EIA); Rules governing the administrative procedure (RD 1028/2007) for the authorization of installation of electricity producing devices at sea; and the Regulation (RD 1955/2000; governing the transport, distribution and supply of electric energy and the procedure for authorization).

Environmental requirements are dealt with by the SEA and EIAs. This process can involve up to six different ministries and may last for several years. The main product of the SEA is a 'Sea Wind Map', which determines suitable and non-suitable areas for the installation of any type of marine renewable.

2.4.1 The National Action Plan for Renewable Energies

Spain has adopted an action planned titled PANER 2011–2020 to answer article 4 of EU Directive 2009/28/CE. This outlines a national plan for renewable energies for the period of 2011 to 2020.

In this plan Spain sets gives priority to electricity production from renewable sources and supports this with a legal framework.

2.4.2 Strategic Environmental Evaluation of the Littoral (EESL) 2009

The national EESL was prepared by the ministries for Industry and the Environment under the terms of the third provision of the RD 1028/2007 and EIAs. The principal product of the EESL is 'the offshore wind map', which aims to protect the marine environment by defining appropriate and inappropriate zones for installation (see Figure 2.5).

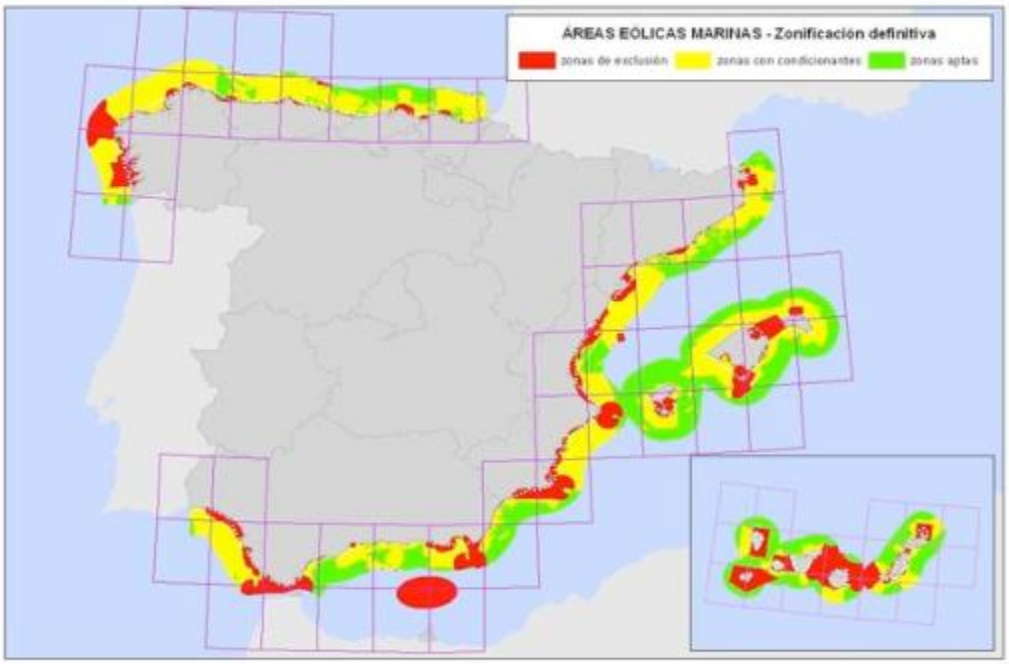

Figure 2.5 Spain's EESL map

The SEA of the Spanish marine areas establishes three types of zones (see Figure 2.6):

- non-suitable (red);
- suitable subject to conditions (yellow);
- suitable zones (green).

The delimitation takes into consideration specially protected areas, such as Natura 2000 sites, and other areas of importance for marine biodiversity (e.g. the Strait of Gibraltar; see Figure 2.7). There are two discrete areas in southern Spain which have been classified by the SEA as non-suitable within the Spanish marine region (up to 24 nautical miles from the coast): the Strait of Gibraltar and the Cape of Gata.

Figure 2.6 SEA map of Spain

The Strait of Gibraltar is an important area for species migrating between the Mediterranean Sea and the north-east Atlantic (Figure 2.7). In spite of this, the draft ministerial regulation establishing the Special Protection Areas (SPA) for Sea Birds in Spain (under the EU Birds Directive) does not include the Strait of Gibraltar (see Figure 2.8). This is explained by the diplomatic conflict between Spain and Great Britain over jurisdiction of the area.

Figure 2.7 The Strait of Gibraltar

Figure 2.8 Map showing Economic Exclusivity Zones (EEZs) in the Strait of Gibraltar

This example highlights that "*an area qualified as non-suitable for environmental reasons is not necessarily excluded from an application and authorization to exploit that area. This qualification only means that during the evaluation of the application the environmental criteria will count against granting authorization.*

This procedural weakness is not coherent with the preference given to environmental protection and conservation. Yet serious concerns arise when examining these provisions together with the evaluation criteria for granting the exploitation of an area established in article 16 of the Regulation 1028/2007. The environmental impact is considered as just another criterion together with socioeconomic factors on a long list of criteria related to economic profitability and technological aspects."

As a result: "*The practical result of the regulatory picture is a broad margin for states to develop and apply their own protection policies and give priority to either socio-economic or rather environmental interest in the industrial development of marine renewables. From that point of view, it can be claimed that the international legal regimes governing marine renewables in the Mediterranean Sea are still weak and that strong further developments are necessary in order to guarantee an optimal environmental protection when deploying marine renewables.*

Ultimately, the fact that the effective scope of the international protection regime strongly depends on each coastal state, means developments are determined by local political conditions, which can be observed in the case of the some parts of the south coast of Spain.

At present, there are financial shortages which ensure Spanish Administrations and industry respect the marine and coastal environment. There is also the refusal from civil society to accept the largest marine wind farm in Europe near the Cape of Trafalgar, on the western margin of the Strait of Gibraltar. This has prevented authorization in procedures and already lasted several years. However,

the politically sensitive situation might change just as local financial and political perceptions and might also [71]*."*

2.5 Controlling environmental impacts: EIAs

2.5.1 Assessing impacts in a global context

The global and local advantages of OWFs must be balanced against the negative impacts they may have on marine life. Minimising the negative impacts is central in the licensing process, and, according to surveys in several countries, is also an important subject for local acceptance of wind farms[72].

It is expected that developers adopt an exemplary environmental and socio-economic approach at project level. It is essential that they are accompanied by strategic actions which integrate their project at a higher level (e.g. national or regional plans)[73].

Like all the strategic projects, renewable energies require local stakeholder involvement. This requires continuous dialogue and open governance.

This shows that the environmental impacts of OWFs need to be comprehensively assessed. As the global offshore wind energy industry expands further and continues to mature, companies and governments will benefit from increased knowledge and experience.

According to the green blue energy report, it is essential to seek, identify and minimise overall negative impacts on the marine environment:

Mitigation of impacts can be done in many stages, based the 'mitigation hierarchy', e.g. by avoiding sensitive sites, mitigating impacts through design evolution and compensating for residual impacts through offsets (see Figure 2.9).

[71] The Environmental Protection Regimes Governing Maritime Renewable Energies in the EU and their Implementation in the Marine and Coastal Areas of the South of Spain- Víctor Luis Gutiérrez Castillo, Juan García Blesa Spanish yearbook of international law, ISSN 0928-0634, Nº 17, 2011-2012

[72] Wilhelmsson, D., Malm, T., Thompson, R., Tchou, J., Sarantakos, G., McCormick, N., Luitjens, S., Gullström, M., Pa erson Edwards, J.K., Amir, O. and Dubi, A.
(eds.) (2010). Greening Blue Energy: Gland, Switzerland: IUCN. 102pp.

[73] **Agence des aires marines protégées,** Acceptabilité économique et sociale *Intégration des projets d'énergies marines renouvelables dans l'environnement humain* Sylvain Michel, chargé de mission« usages industriels et aménagements maritimes», service Protection et Usages du Milieu Marin **Conférence Marine Energy Brest, 14 octobre 2014**

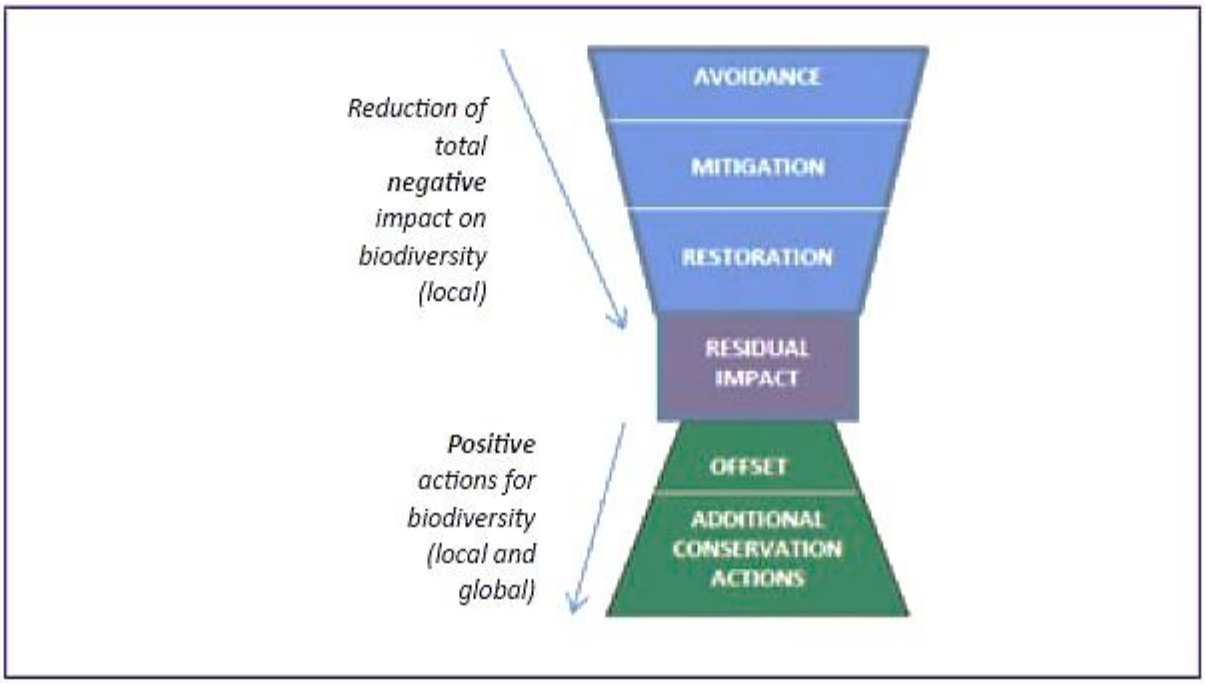

Figure 2.9 Mitigation hierarchy

2.5.2 Environmental assessment tools

The main tools that are used to assess the environmental impacts of projects are:

- Strategic Environmental Assessments (SEAs);
- Environmental Impact Assessment (EIAs).

SEAs assess the environmental impacts of regional plans (including cumulative impacts). They are often used as a scoping study to identify broad areas which are suitable (or unsuitable) for large-scale developments. Typically they are undertaken by government authorities.

EIAs are used for individual projects. They are used by developers to take decisions on project development based on the associated environmental impacts. These include mitigation plans and post construction monitoring. They are also used by government authorities to verify that the given project respects relevant environmental legislation.

2.5.3 European legislation

The EU EIA legislation provides the minimum requirements that a member state should demand from a developer during the life cycle of a project. The extent of information required is also determined by national law and conventions to which the country has signed. The EU has several relevant legislations that relate to nature conservation and the protection of specific species and habitats (e.g. EU Habitats and Species Directive; 92/43/EEC) as well as EIAs (Directive 85/337/EEC) and SEAs (Directive 2001/42/EC).

Additionally, the implementation of the Marine Strategy Framework Directive (MSFD) (Directive 2008/56/ EC) is expected to facilitate the EIA process for OWF projects and other offshore renewable energy developments[74].

2.5.4 Evaluation of the environmental impacts[75]

Directive N°85/337/EEC, repealed and replaced by Directive 2011/92/UE of 13 December 2011 (concerning the evaluation of the incidences of certain public and private projects on the environment), states that "*projects likely to have notable incidences on the environment, in particular because of their nature, their dimensions or their localization, are subject to a procedure of request for authorization and to evaluation with regard to their incidences.*"

In January 2014, the EC presented an action plan to increase the development of marine energies and to raise barriers by 2020. This was done via Directive 2014/52/EU (which amended 2011/92/EU).

The amendments were necessary as after 25 years of application, the EIA Directive had not significantly changed, while the policy, legal and technical context has constantly evolved (see Figure 2.10).

The general objectives of this revision are to:

- correct identified and persistent shortcomings;
- reflect ongoing environmental and socio-economic priorities and challenges;
- align the principles of smart regulation;
- reflect the ECJ case law.

To further the new Directive, it will be necessary to develop a forum bringing together all agencies concerned with marine energies (e.g. industrialists, states, searches, EU and ONG). This will improve co-ordination between policies and industries and collectively find solutions. This should happen between 2014 and 2016.

The Commission will play a role in facilitating and co-ordinating this forum. This collective work will lead to the drafting of a strategic roadmap. A second forum will approach the administrative and financial problems. A working group will be charged with evaluating the environmental impacts of existing and future installations and taking stock of environmental directives applying to marine energies and their possible deficiencies.

[74] Wilhelmsson, D., Malm, T., Thompson, R., Tchou, J., Sarantakos, G., McCormick, N., Luitjens, S., Gullström, M., Paerson Edwards, J.K., Amir, O. and Dubi, A.
(eds.) (2010). Greening Blue Energy: Gland, Switzerland: IUCN. 102pp.

[75] *ec.europa.eu › European Commission › Environment* 15/05/2014: The **revision** of **Environmental Impact Assessment** (**EIA**) Directive enters into force.

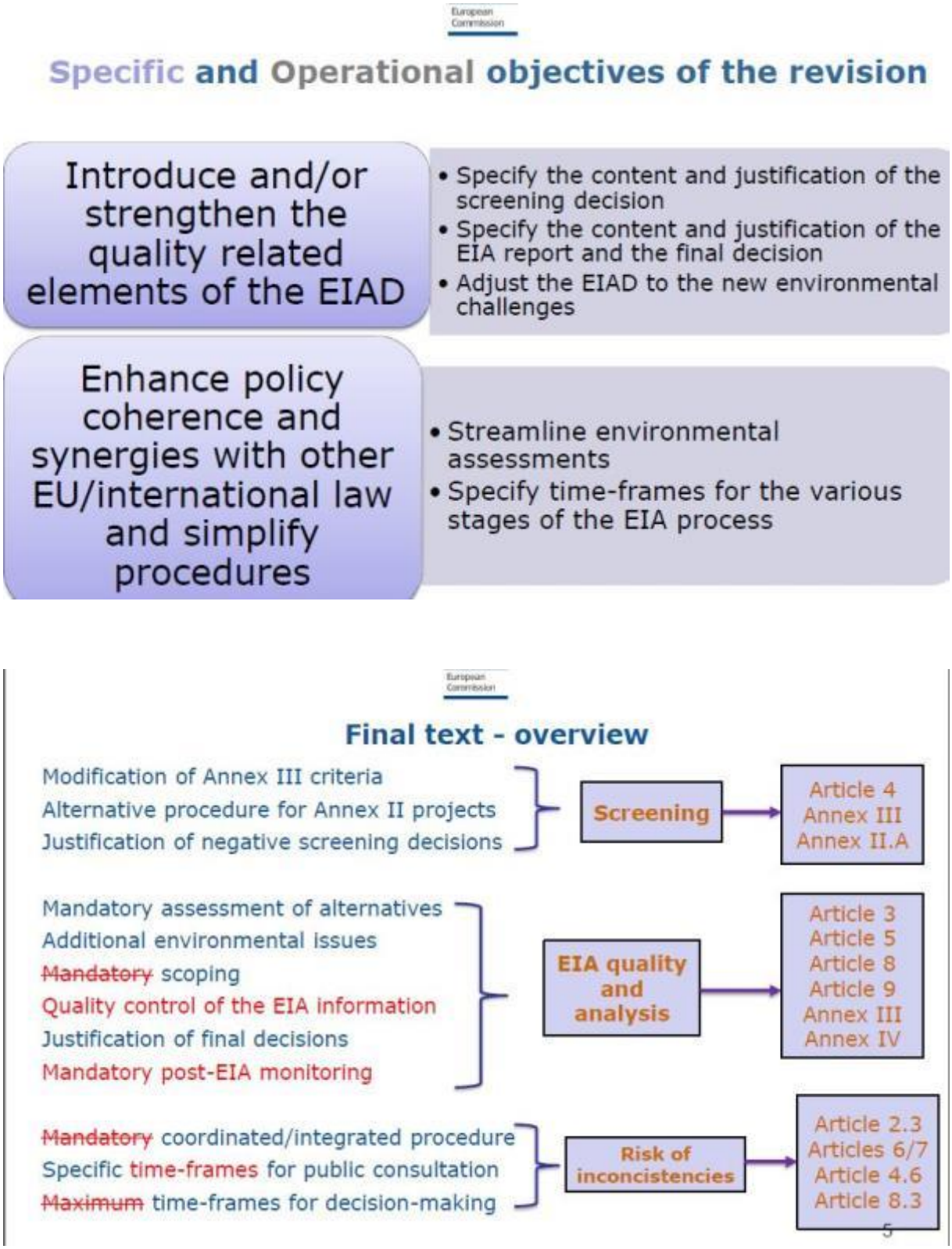

Figure 2.10 Details of EIA Directive 2014/52/EU

In the second period (2017–2020), a European industrial initiative should be developed based on a public-private partnership. This will set clear and shared objectives, for the industrial deployment of marine energies in Europe. In parallel, the granting of licenses could be fast-tracked to reduce the administrative load for authorities. The realization of an assessment of this action plan is envisaged at the latest in 2020.

2.6 Recommendations and governance issues

2.6.1 Knowledge gaps in ecological baseline data

There are considerable knowledge gaps regarding ecological baseline data. This can result in inadequate EIAs and monitoring programmes. If a precautionary approach is not applied, this can jeopardise habitats, species and ecosystems, including those of high conservation interest. The number of targeted biological and environmental surveys in relation to offshore energy development is nevertheless increasing.

Continued and enhanced monitoring of carefully selected environmental parameters during construction and operation of offshore renewable energy farms will generate more reliable data on both the adverse and potentially positive effects of offshore wind power development.

The opportunity for identifying and achieving consensus among stakeholders on areas to be considered for exploitation could thus be facilitated, and the development of mitigating construction methods and other measures to protect the marine environment could also be enhanced. However, it will take several years for new monitoring programmes to provide a comprehensive overview of environmental risks and opportunities [76].

There is the possibility to develop a pilot OWF in a marine park (See Chapter 3). This may provide an opportunity to study and learn about unknown effects. Marine parks are subject of regular scientific monitoring so the creation of such a project could benefit and extend the knowledge of impacts.

As emphasised in the Mermed report: The scientific co-operation at the Mediterranean level passes not only by collaborative projects, gathering research teams of different countries working on various grounds of study, but also by technique, experience sharing, even of personnel, with the objectives of formation and harmonization or complementarity of strategies, methods and protocols of follow-up.

These co-operations must be based on the many devices and networks, in particular regarding the collection and the sharing of data (e.g. observatories, zones workshops, etc), but also on the specific tools of partnership set up by certain research organizations[77].

[76] Wilhelmsson, D., Malm, T., Thompson, R., Tchou, J., Sarantakos, G., McCormick, N., Luitjens, S., Gullström, M., Paterson Edwards, J.K., Amir, O. and Dubi, (eds.) (2010). Greening Blue Energy: Gland, Switzerland: IUCN. 102pp.

[77] Atelier de reflexion prospective MERMED, Adaptation aux changements globaux en mer Méditerranée, Rapport final, septembre 2014

These co-operations are crucial in the Mediterranean according to its specific biodiversity[78], because even in protected areas it is underlined by Medpan [79] that: The managers of Mediterranean MPAs consider that the biological and socio-economic follow-ups are important requirements to support management (Di Carlo et al, 2013). Nevertheless, the follow-ups in the MPAs in the Mediterranean are, with some exceptions, rare, irregular, short-term and incoherent (…).

Progress was however identified during the last years, for example in the evaluation of ecological baselines and in the regular follow-up of certain parameters in Mediterranean MPAs (Gabrié et al, 2012).

Twenty-five percent of research projects undertaken in Mediterranean MPAs during the last decade were related to the management and follow-ups, although most of them were developed in Italy, France and Spain. Of these research projects, socio-economic aspects were specifically examined by approximately 5% of them (Di Carlo et al, 2013).

The lack of research on environmental and socio-economic impacts of the installations of OWFs constitutes the greatest difficulty. In spite of feedback from international OWF projects and the experience from other industries, many questions remain unanswered[80].

There is knowledge regarding certain impacts which are incorporated into the design and planning of OWFs. However, continued post construction monitoring is required to identify further positive and negative impacts.

Thus, test sites are a prerequisite for filling knowledge gaps. *The precautionary principle must result optimizing environmental and socio-economic integration of renewable energy installations*[81].

This precautionary approach should not be a hindrance to the development of offshore wind power, but a good principle to frame and police these installations.

The first step is to differentiate the research phase from the commercial operating phase. Recommendations were made in a French report[82] which can be applied to the whole Mediterranean basin: "*In order to facilitate the division of knowledge and improve effectiveness it could be*

[78] IUCN Red list, La Méditerranée menace sur un haut lieu de la biodiversité, https://cmsdata.iucn.org

[79] Rodríguez-Rodríguez, D. 2015. Les suivis dans les AMP de Méditerranée. Que se passe-t-il dans mon AMP? MedPAN. Marseille, France.
http://www.medpan.org/documents/10180/0/La+science+pour+la+gestion+des+AMP+-

[80] Rapport de la mission d'étude sur les énergies marines renouvelables, Ministère de l'écologie, du développement durable et de l'énergie Ministère de l'économie et des finances Ministère du redressement productif Conseil général de l'environnement et du développement durable Conseil général de l'économie, de l'industrie, de l'énergie et des technologies N° 2013 / 008693-01 / CGEDD- mars 2013

[81] UICN France (2014). Développement des énergies marines renouvelables et préservation de la biodiversité. Synthèse à l'usage des décideurs. Paris, France.

[82] Ministère de l'écologie… Étude méthodologique des impacts environnementaux et socio-économiques des énergies marines renouvelables Version 2012, p.323 www.developpement-durable.gouv.fr

interesting to have a national data base of the scientific research on the impact of offshore wind farms, whose contents should be standardized".

This supposes that protocols and research methods are standardized at both country and basin levels. It is also necessary to take into account technical and geographic specifics related to each project.

2.6.2 Improving the use of EIAs

Some EIA standards request up to two complete successive years of data before construction of wind farms can be approved. This is generally not sufficient to fully understand the ecological effects for each site in question, including seasonal and inter-annual variability at both ecosystem and species levels. The existing baseline data available for a marine area strongly influences the quality of the EIA, which should be taken into account during the site selection and permitting processes[83]. Therefore it is necessary to standardize data collection methods across all EIAs.

The EU guidance document on wind energy developments[84] underlines the relationship between SEA, EIA and Appropriate Assessments:

There are many similarities between the procedures for SEA and EIA, and the Appropriate Assessments carried out for plans or projects affecting Natura 2000 sites under the Habitats Directive. But this does not mean they are one and the same, there are some important distinctions too. Therefore, an SEA and EIA cannot replace, or be a substitute for, an Appropriate Assessment as neither procedure overrides the other.

They may of course run alongside each other or the Appropriate Assessment may form part of the EIA/SEA assessment but, in such cases, the Appropriate Assessment should be clearly distinguishable and identifiable in the SEA's Environmental Report or in the EIA's Environmental documentation, or should be reported on separately so that its findings can be differentiated from those of the general EIA or SEA.

One of the key distinctions between SEAs/EIAs and Habitats Directive's Appropriate Assessments, apart from the fact that they measure different aspects of the natural environment and have different criteria for determining 'significance', is how the outcome of the Assessment is followed. In this regard, the assessments under the SEA and EIA lay down essentially procedural requirements and do not establish obligatory environmental standards. On the contrary, the assessment under the Habitats Directive lays down obligations of substance, mainly because it introduces an environmental standard, i.e. the conservation objectives of a Natura 2000 site and the need to preserve its integrity. In other words, if the Appropriate Assessment determines that the plan or project will adversely affect the integrity of a Natura 2000 site, the authority cannot agree to the plan or project as it stands unless, in exceptional cases, they invoke special procedures for projects which are deemed to

[83] Greening blue energy, op.cit

[84] EU Guidance on wind energy development in accordance with the EU nature legislation, Wind energy developments and Natura 2000, Luxembourg: Publications Office of the European Union, 2011

be of overriding public interest. The SEAs/EIAs, on the other hand, are designed to make the planning authorities fully aware of the environmental implications of the proposed plan or project so that these are taken into account in their final decision[85].

Therefore, *"the type and degree of impact is very much dependent upon a range of factors, such as location and the type of species present: the potential impacts must therefore be examined on a case-by-case basis"*.

The effects of each project will be unique and must be evaluated on a case-by-case basis. According to ECJ Waddensea ruling in assessing the potential effects of a plan or project, their significance must be established in the light, inter alia, of the characteristics and specific environmental conditions of the site concerned by that plan or project[86].

To avoid arbitrary or non-precautionary approaches, solid scientifically based standards and threshold values for assessments of impacts should be developed at national, and if possible also at regional levels.

In France, for example, several general recommendations have been made:

- a preliminary framing study is strongly recommended. It makes it possible to identify the baseline of study and the potential environmental challenges, which will require more in-depth study as the project progresses;
- the impact study must be undertaken by evaluation specialists. This should be responsibility of the developers[87].

The EU guidance document also recommends that the competent authorities secure the necessary expert advice and support in carrying out the impact assessment. As with all impact assessments, the Appropriate Assessment should be undertaken within a structured framework to ensure that the predictions can be made as objectively and accurately as possible.(..)

Scientific studies and monitoring work undertaken in relation to existing and future wind farm developments are an invaluable source of information. Wind farm developers, planners, scientists and NGOs have a key role to play in building up the information base on the interactions between wind farms and wildlife.

[85] EU Guidance on wind energy development in accordance with the EU nature legislation, Wind energy developments and Natura 2000, Luxembourg: Publications Office of the European Union, 2011, p.29
[86] EU Guidance on wind energy development in accordance with the EU nature legislation, Wind energy developments and Natura 2000, Luxembourg: Publications Office of the European Union, 2011, p.80
[87] Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer, en charge des Technologies vertes et des Négociations sur le climat, Guide de l'étude d'impact sur l'environnement des parcs éoliens actualisation 2010, www.developpement-durable.gouv.fr

2.6.3 Commonly used methods for predicting impacts

Direct measurements: for example of areas of habitat lost or affected, proportionate losses from species populations, habitats and communities.

Flow charts, networks and systems diagrams: to identify chains of impacts resulting from direct impacts; indirect impacts are termed secondary, tertiary, etc. impacts in line with how they are caused. Systems diagrams are more flexible than networks in illustrating interrelationships and process pathways.

Quantitative predictive models: to provide mathematically derived predictions based on data and assumptions about the force and direction of impacts. Models may extrapolate predictions that are consistent with past and present data (trend analysis, scenarios, analogies which transfer information from other relevant locations) and intuitive forecasting. Normative approaches to modelling work backwards from a desired outcome to assess whether the proposed project will achieve these aims.

Population level studies: are potentially beneficial for determining population level effects of impacts to bird or bat or marine mammal species, for instance.

Geographical information systems (GIS)*:* to produce models of spatial relationships, such as constraint overlays, or to map sensitive areas and locations of habitat loss. GIS are a combination of computerised cartography, storing map data, and a database-management system storing attributes such as land use or slope. GIS enable the variables stored to be displayed, combined, and analysed quickly.

Information from previous similar projects: may be useful, especially if quantitative predictions were made and have been monitored in operation.

Expert opinion and judgment*:* derived from previous experience and consultations on similar wind farms.

Description and correlation: physical factors (water regime, noise) may be directly related to distribution and abundance of species. If future physical conditions can be predicted then it may be possible to predict future abundance on this basis.

Carrying capacity analysis: involves identifying the threshold of stress below which populations and ecosystem functions can be sustained. Carrying capacity analysis involves the identification of potentially limiting factors, and mathematical equations are developed to describe the capacity of the resource or system in terms of the threshold imposed by each limiting factor.

Ecosystem analysis*:* aims to provide a broad regional perspective with a holistic framework. Three basic principles of ecosystem analysis are (i) taking the 'landscape level' view of ecosystems, (ii) use a suite of indicators including community level and ecosystem-level indices and (iii) taking into account the many interactions amongst ecological components which are involved in maintaining ecosystem function.

Adapted from: Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4)of the Habitats Directive 92/43/EEC; *http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf*.

2.6.4 National legislative uniformity

The legislative and legal environment is very diverse. It depends on each country and can vary due to: roadmaps and specific regulations for renewable marine energy, national authority and/or local authority on marine space, integrated maritime management systems, the territorial waters (including EEZ), unity of the applicable right or superposition of regulations[88].

Standardizing national legislations is difficult due to historical developments and the inequality of environmental legislations. Therefore it is recommended to simplify the administrative process[89].

The Scottish system consists of a single entity to liaise with owners of projects, procedures and authorizations. This creates a parallel and simplified process.

The current system of disparate national legislations prevents standardized data collections and comparative studies. Legislation should be improved to harmonise data collection and help develop new techniques.

Knowledge gained from pilot OWFs in the Mediterranean will identify requirements for new legislation. Amendments to national procedures will be necessary to prevent legislative framework from evolving in an incoherent manner.

2.6.5 Final conclusions made by the IUCN

As the global offshore wind energy industry expands and matures, companies and governments will benefit from increased knowledge and experience. Ongoing monitoring will be crucial to identify how successful previous mitigation strategies have been in avoiding or reducing impacts on the marine environment.

Future decisions can integrate new findings and mitigate new threats. Learning from other processes and other types of installation (e.g. multi-use sites in Japan) should not be overlooked. By undertaking rigorous impact assessment and systematic environmental management, the industry will continue to learn through the 'plan, do, check, act' approach and apply continuous improvement to their practices and procedures. Through MSP, cumulative and synergistic impacts can be better managed and impacts and opportunities for all sea users taken into consideration.
Planning and development decisions made at this stage will set precedents for future developments, both in Europe and beyond. Therefore, it is imperative that shortcomings in research and knowledge are addressed as a matter of urgency.

[88] Rapport de la mission d'étude sur les énergies marines renouvelables, Ministère de l'écologie, du développement durable et de l'énergie Ministère de l'économie et des finances Ministère du redressement productif Conseil général de l'environnement et du développement durable Conseil général de l'économie, de l'industrie, de l'énergie et des technologies N° 2013 / 008693-01 / CGEDD- mars 2013

[89] Voir, les 17 propositions du SER, énergies marines renouvelables, accélérer le développement de l'éolien en mer, 2013, www.actu-environnement.com/.../**ser-propositions-energies-marines**

As quoted in the MERMED report[90] , a comprehensive approach to the basin and exploitation of resources is required: "*it is paramount to have comparable scientific data covering the whole of the basin. However, our current knowledge remains heterogeneous and fragmentary. A basic work is essential, aiming at the standardization and the homogenisation of the new collected data and the structuring of their collection within observatories and regional workshops. It is important to prioritise and promote the division of information and data according to established principles as well as those of the system of division of information on environment (SEIS) used in Europe and, by extension, in the adjoining Mediterranean countries.*"

[90] Atelier de reflexion prospective MERMED, Adaptation aux changements globaux en mer Méditerranée, Rapport final, septembre 2014

Chapter 3. MSP and the compatibility of MPAs and OWFs

3.1 Background to MSP

The concept of MSP arose from environmental movements within recent decades.

3.1.1 Coastal development

The process of coastal development occurs as increased anthropogenic pressure results in multiple activities occurring within the same space (Meur-Ferec, 2008)

This process is notable in in the Mediterranean where human migration is putting increasing pressure on the basin. This is highlighted by the fact that Mediterranean countries represent[91]:

- 7% of the world population;
- 13% of the world GDP;
- 31% of international tourism.

Coastal areas are under increasing pressure as people migrate to these areas. This has large impacts on the environment.

This trend has been observed over a long period of time (1901–1999) in the Languedoc-Roussillon region of France (see Figure 3.1).

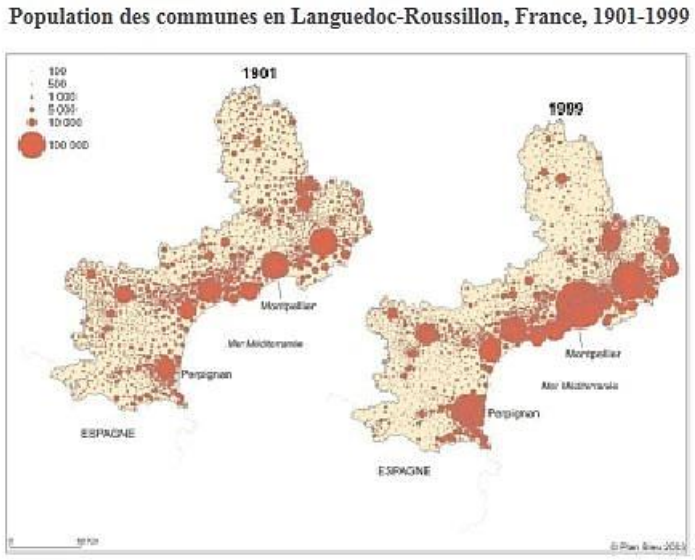

Figure 3.1. Population change in Languedoc-Roussillon region of France (1901–1999)

It should be noted that this data only relates to permanent populations and does not include tourist numbers. This temporarily increases population numbers and increases pressure on natural resources (e.g. water).

[91] Sénat, La pollution de la Méditerranée : état et perspectives à l'horizon 2030, www.senat.fr

Coastal areas are highly valued due their maritime transport links (see Figure 3.2). They are also valued due to their tourism potential. This results in increased development and conflicts between stakeholders.

Source : Plan Bleu, Organisation de l'aviation civile internationale, Instituts nationaux de statistique

Figure 3.2. Transport infrastructure and airports on the Mediterranean coast

As a result the Mediterranean coastline is experiencing high levels of development.

Migration to these areas has increased in the last 30 years. In the year 2000, 34% of the population of the Mediterranean countries lived in the coastal regions compared with 27% in 1970.

Between 1970 and 2000, the population of the northern coastal regions increased from 58 to 69 million. During the same period the population for the southern coastal countries has more than doubled from 32 to 75 million.

The average population density increased from 100 people/km^2 in 1970 to 150 people/km^2 in 2000. This could exceed 180 people/km^2 by 2025. In addition, the urban populations of coastal states totalled 274.5 million in 2000. By 2025 this is projected to reach 379 million. Coastal urban areas represent 104.5 million people, including more than 98 million in the south and east Mediterranean[92].

[92] Géoconfluences, Littoralisation sur les côtes méditerranéennes, 10.04.2013, *geoconfluences.ens-lyon.fr/glossaire/littoralisation-ou-maritimisation*

3.1.2 Industrialisation

This movement is accompanied by the industrialisation of the coastal zone and the marine environment[93].

In additional to existing activities (e.g. commercial fishing, transport, tourism, etc) there are new activities starting to take place (e.g. aggregate extraction, dredging, increased tourism, etc).

This also includes OWFs and other marine renewables. The potential for floating OWFs at depths greater than 50 m[94] increases the likelihood of these developments in the Mediterranean. Additionally, marine renewables are spatially explicit unlike the more traditional activities.

Industrialisation of the marine environment is a consequence of dwindling natural resources. As terrestrial resources are exhausted attention becomes focused on those in the marine environment. This process began 30 years ago with offshore oil rigs and is increasing rapidly[95].

The exploitation of marine resources is at an early stage but already has a geopolitical element.

The 2008 French White Paper on national security[96] specified that the economic growth of new powers is growing in parallel with energy consumption. This increases the need for natural resources and strategic raw materials. As a result there will be increased pressure on the environment and political tensions between states.

The paper also noted that "*over-exploitation of natural resources is likely to promote tensions at a global scale in order to satisfy energy needs and demand for water, food and raw materials.*"

It had not anticipated that these tensions would be transferred to the marine environment. Making control of the seas is an essential component in the strategic context[97].

3.1.3 Conservation

At the same time, a developing conservation movement is promoting the creation of MPAs. Some are used for scientific studies to evaluate the state of the marine environment and the impacts of the human activities on the marine ecosystems (de Cacqueray, 2011). However, MPAs are primarily coastal (see Figure 3.3).

[93] Mathilde de Cacqueray, La planification des espaces maritimes en france metropolitaine *:* Un enjeu majeur pour la mise en oeuvre de la Gestion Intégrée de la Mer et du Littoral, Cette communication consiste à présenter les résultats d'un travail de doctorat en géographie réalisé entre 2008 et 2011 grâce à une bourse de recherche en co-fi nancement entre le CNES (Centre National d'Etudes Spatiales) et l'IFREMER (Institut Français de Recherche pour l'Exploitation de la Mer), et un soutien scientifi que de l'Agence des Aires Marines Protégées. Ce travail a été réalisé au sein du laboratoire Géomer sous la direction de Catherine Meur-Ferec, professeur des universités en géographie à l'Université de Bretagne Occidentale (UBO), et sous la tutelle de Brice Trouillet, maître de conférence en géographie à l'Université de Nantes.

[94] PanOrama 2013, Simon Vinot, L'éolien offshore,

[95] Sénat- Rapport d'information sur la Maritimisation, n°674, 2012, www.senat.fr

[96] www.**livreblanc**defenseetsecurite.gouv.fr

[97] Sénat- Rapport d'information sur la Maritimisation, n°674, p. 30, 2012, www.senat.fr

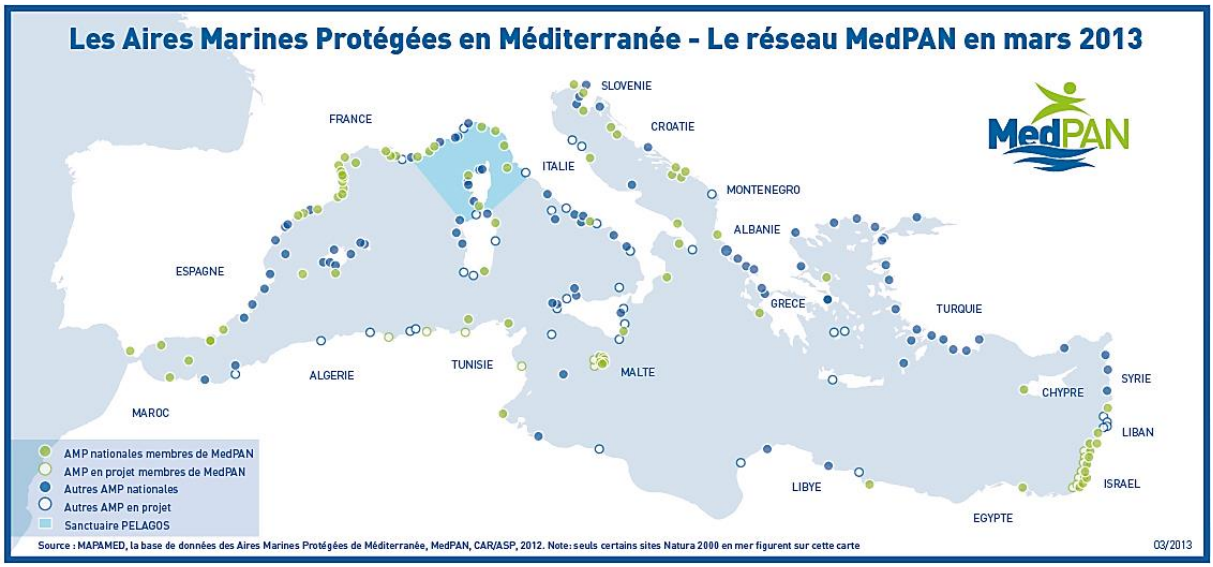

Figure 3.3. MPAs in the Mediterranean

Consequently the development of OWFs is at the centre of policies of conservation and exploitation. An intensive programme of marine planning, and international co-operation between countries is required to evaluate this new activity. There is the possibility that 'new generation MPAs' can authorize this combination. However, the IUCN recommends[98] the avoidance of this and instead focusing investment in already industrialized areas. Nevertheless, the French marine park in the Gulf of Lions is investigating the possibility of developing an OWF within its boundaries.

3.1.4 Territorialisation[99]

The desire for countries to control maritime spaces in the same way as terrestrial territories is as old as navigation. If the development of maritime trade was based on free navigation, it did not prevent a progressive appropriation by countries, first of the inland seas, and then of territorial seas. The extent of territorial seas is defined as a distance of 12 nautical miles from the coast by the conventions of the United Nations on the law of the sea (UNCLOS) of 1958 and 1982. The prior limit was three nautical miles.

"The marine environment is becoming increasingly privatized. This is in the favour of developed countries, which have the technology to exploit resources. Therefore we are passing from a principle of mare libsrum to a mare clausum" [100].

This is reinforced by the exhaustion of natural resources and technological progress. This encourages countries to monopolise marine spaces beyond the territorial seas, up to and sometimes beyond, the continental shelf with the intent of controlling the seafloor and its potential income[101].

[98] UICN France (2014). Développement des énergies marines renouvelables et préservation de la biodiversité. Synthèse à l'usage des décideurs. Paris, France.
[99] Sénat- Rapport d'information sur la Maritimisation, n°674, p. 47, 2012, www.senat.fr
[100] Leimgruber Walter. Frontières maritimes : droit de la mer? droit à la mer? In: Norois. N°138, 1988. pp. 145-158. http://www.persee.fr/web/revues/home/prescript/article/noroi

The desire to appropriate the marine environment leads to a redefinition of maritime limits and the territorialisation of the seabed.

The current framework for maritime delimitations, defined by the 1994 Montego Bay Convention, is undergoing revisions on the legal delimitations of maritime spaces.

The definitions of 'territorial waters', 'exclusive economic zones' (EEZs) and 'continental shelf' are not under dispute but a source of strong competition between countries.

In 2010 unprecedented levels of claims for territorial rights of the seabed were made (see Figure 3.4)[102].

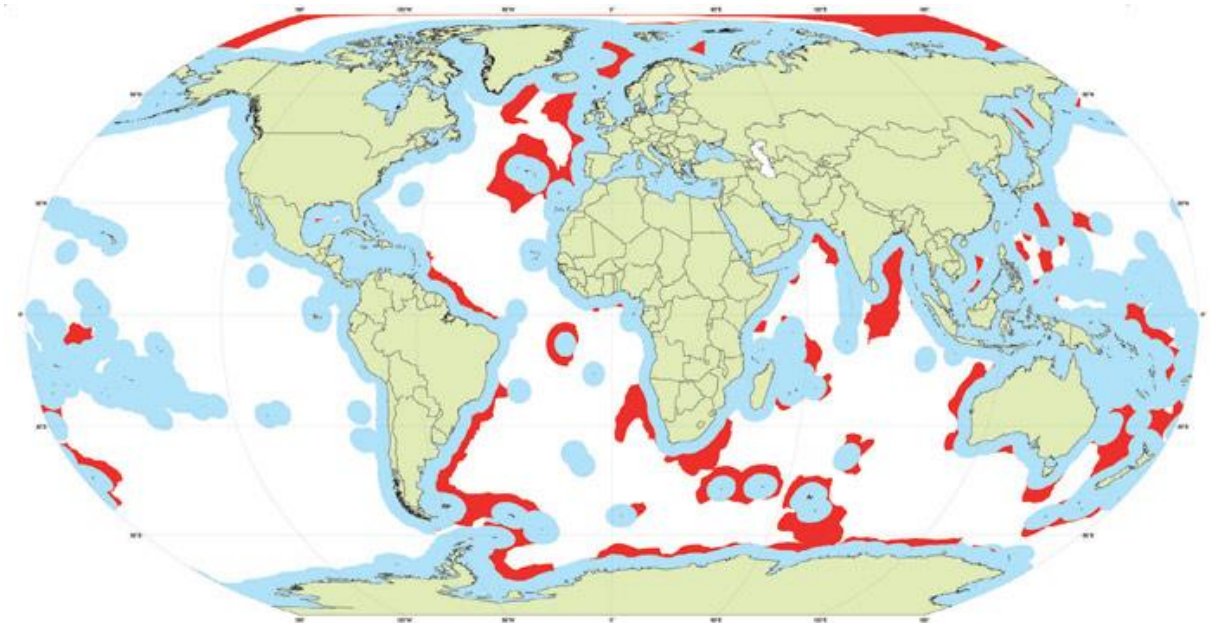

Figure 3.4. Global map of the requests for extension of the continental shelf

There has been a recent change in international law where national interests now override humanitarian interests. This is represented by the International Authority of the Seabeds[103].

These unprecedented claims for territorial rights will be a source of tension in the future. It can be managed by legal mediation but could also constitute a potential cause of armed conflict. If fishing rights are the start of many disagreements, as the dispute relating to Japanese fisheries testifies, hydrocarbon resources are often the underlying cause of principal tensions.

The Mediterranean does not escape these problems.

[101] Gaelle Dupont, « Les fonds marins, objet de convoitise pour les Etats », *Le Monde (France)*, 13.05.2009 www.lemonde.fr/.../les-fonds-marins-objet-de-convoitise-pour-les-etats

[102] Marie-Laure Bonifassi Montego Bay : 30 ans après Appropriation et exploitation des espaces maritimes : Etat des lieux, droit, enjeux, cesm.etudes@marine.defense.gouv.fr

[103] Marine & Océans, Géopolitique : «Nous assistons à un phénomène sans précédent d'appropriation des fonds marins», 22 sept.2011, www.marine-oceans.com

As a result, the development of marine renewables is searching for a foothold amongst many confusing legal statutes. There is also increasing competition between states which illustrate the conflict for control of the seabed[104].

3.2 MSP and its potential to harmonize MPAs and OWFs

EU law aims to plan[105] where and when human activities can proceed at sea, in order to guarantee their effectiveness and durability. In July 2014, the European Parliament and the Council adopted legislation which intends to create a common framework for the planning of maritime space in Europe[106].

If each country in the EU is free to plan their own maritime activities, a level of minimum common requirements would enhance the compatibility of local, regional and national planning in the shared water.

This EU legislative framework arose from the need to:

- control competition related to maritime space – especially in relation to renewable energies, aquaculture and other growth areas;
- develop management – intended to avoid conflicts and to create synergies between the various activities.

Consequently the planning of maritime space has the following goals:

- to reduce conflict between sectors and to create synergies between various activities;
- to encourage investment, by introducing foreseeability, transparency and clearer rules, which will contribute to the development of renewable energy networks;
- to create protected marine zones and to facilitate investment in oil and gas;
- to reinforce co-ordination between country administrations, with the use of a single instrument intended to balance development of a range of maritime activities, which will be simpler and less expensive;
- to increase cross-border co-operation between EU countries, with regard to cables, pipelines, shipping routes, wind energy power stations, etc;
- to protect the environment by determining at an early stage the impact of multiple uses of space and the prospects which they offer.

[104] Sénat- Rapport d'information sur la Maritimisation, n°674, p. 47, 2012, www.senat.fr
[105] *ec.europa.eu › Commission européenne › Affaires maritimes › Politique*
[106] Directive 2014/89/ue du parlement européen et du conseil du 23 juillet 2014 établissant un cadre pour la planification de l'espace maritime, *eur-lex.europa.eu*

3.2.1 A project to develop an OWF within a Marine Park: case study from France

"MSP aims to promote sustainable development, determine the use of marine space by different users and manage conflicts. The planning of maritime space also aims to identify and encourage multiple uses, in accordance with relevant policies and national legislation. To achieve this goal, the Member States must take care to draw up a complete plan which indicates the various uses of maritime space, also taking into account variations due to climate change in the long term."

Planning remains a national responsibility and Member States are responsible for the design and determination of activities in their own waters[107].

Since 2007 France has begun implementing an integrated maritime policy. This is in response to EU priorities. This policy has a central goal to sustainably develop maritime and coastal activities, by simultaneously taking into account the economic development of maritime activities and the safeguarding the marine environment.

The integration of coastal and marine management cannot be rushed: it requires careful development based on progressive projections which are built one after the other. In this spirit of governance, the objectives to create natural marine parks, founded by the Agency of the protected marine areas, require at least three years to fulfil this decision-making process.

France made notable progress with the operational committee no. 6 of the *Grenelle of the Sea*[108]. This proposed to transfer responsibility from Integrated Coastal Zone Management (ICZM) Zones to an Integrated Management of the Sea and coast. A version of this strategy would be applied at the national level and to each coastal region.

The committee proposed to create an *ad hoc* authority of governance at the level of coastal regions, basins and/or on an interregional level. This authority of governance will build a shared vision for the project for the integrated management of the sea and the shore.

This proposal demonstrates that the concept of ICZM is evolving towards MSP. Regarding sustainable development, France must succeed nationally by establishing MSP which involves all coastal and marine stakeholders[109].

To this end, France initiated a reform of the territorial administration of the State, under the impulsion of the Grenelle of the Sea, and created the interregional directions of the sea (DIRM) by decree in February 2010.

[107] Directive 2014/89/ue du parlement européen et du conseil du 23 juillet 2014 établissant un cadre pour la planification de l'espace maritime, *eur-lex.europa.eu*

[108] Séminaire : Gouvernance de la mer et du littoral - Ifremer – oct 2011 *wwz.ifre**mer**.fr/.../01.Gouvernance%20**mer**%20et%20littoral%20pour%2 ..*

[109] **Christophe** Lefebvre, « La gestion intégrée côtière et marine : nouvelles perspectives », *VertigO - la revue électronique en sciences de l'environnement* [En ligne], Hors-série 9 | Juillet 2011, mis en ligne le 06 juillet 2011, URL : http://vertigo.revues.org/10985 ; DOI : 10.4000/vertigo.10985

The DIRM controls the policies of the State regarding sustainable development of the sea, stock management and regulation of maritime activities[110].

The decree no. 2012-219 of 16 February 2012 relating to the national strategy for the sea and the littoral specifies the methods for the development and implementation of this national policy. A strategic document of frontage (DSF) grants the authority to decline coastline development.

The Mediterranean constitutes one of the regional coastlines. This includes the areas of: Provence-Alpes-Côte d'Azur, Languedoc-Roussillon and Corsica.

The development, adoption and implementation of the strategic document are placed under the joint authority of the regional prefect of Provence-Alpes-Côte d'Azur and the maritime prefect of the Mediterranean.

These authorities of governance are based on an authority of dedicated dialogue, created at the end of 2011: the Maritime Council of Frontage of the Mediterranean.

The concerted building programme began at the end of 2011 with the development of the action plan for marine environment and with the Assizes of the sea and the littoral.

In spring 2013, the Agency of the Protected Marine Surfaces was mobilized in to generate knowledge relating to the marine environment of Metropolitan France.

For each marine area concerned, a series of maps describing the main issues relating to natural heritage, ecosystems, uses, and the pressures and impacts being exerted on the marine environment were produced (Figures 3.5 and 3.6).

The maps are accompanied by notes describing the data sources. This work was completed for the parliament of the sea event and was used to initiate action plans for the marine environment (PAMM). This made it possible to supplement the work carried out in 2007 (framework assessing the potential for MPAs) and 2009 (Grenelle of the Sea) and more recently the Strategy for the Marine Environment (DCSMM)[111].

[110] Les DIRM, www.developpement-durable.gouv.fr

[111] Cartes d'enjeux de l'espace marin de France métropolitaine : Cartomer - Agence des aires marines protégées
*cartographie.**aires-marines**.fr/?q=node/46&page=1*

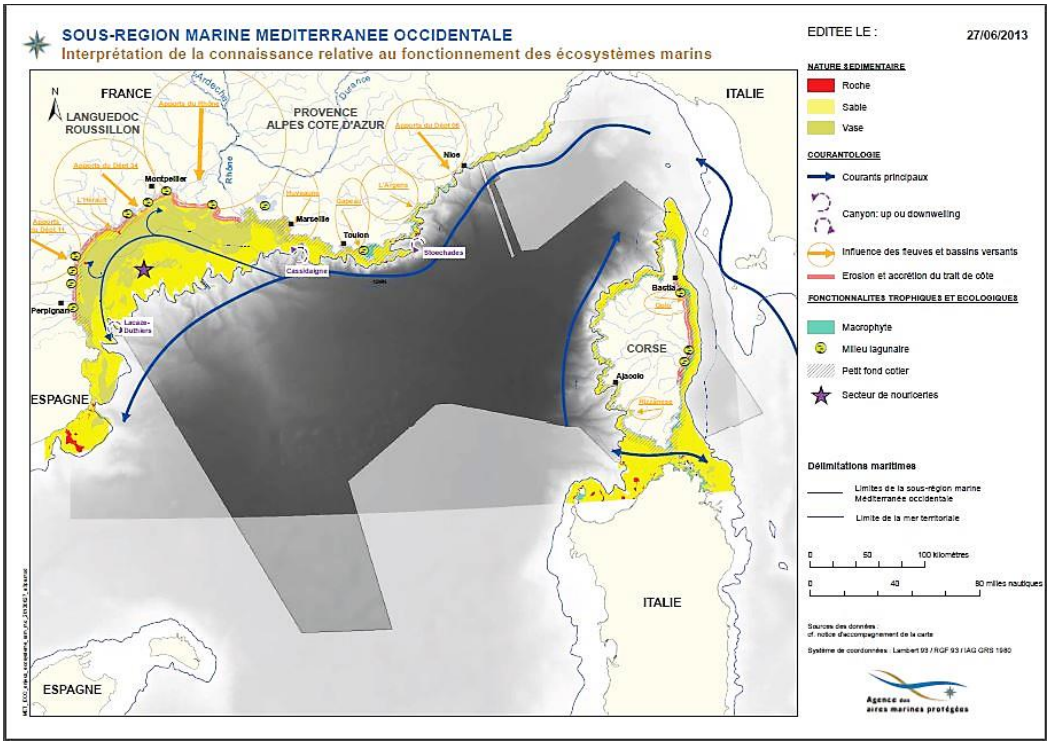

Figure 3.5. MSP planning document

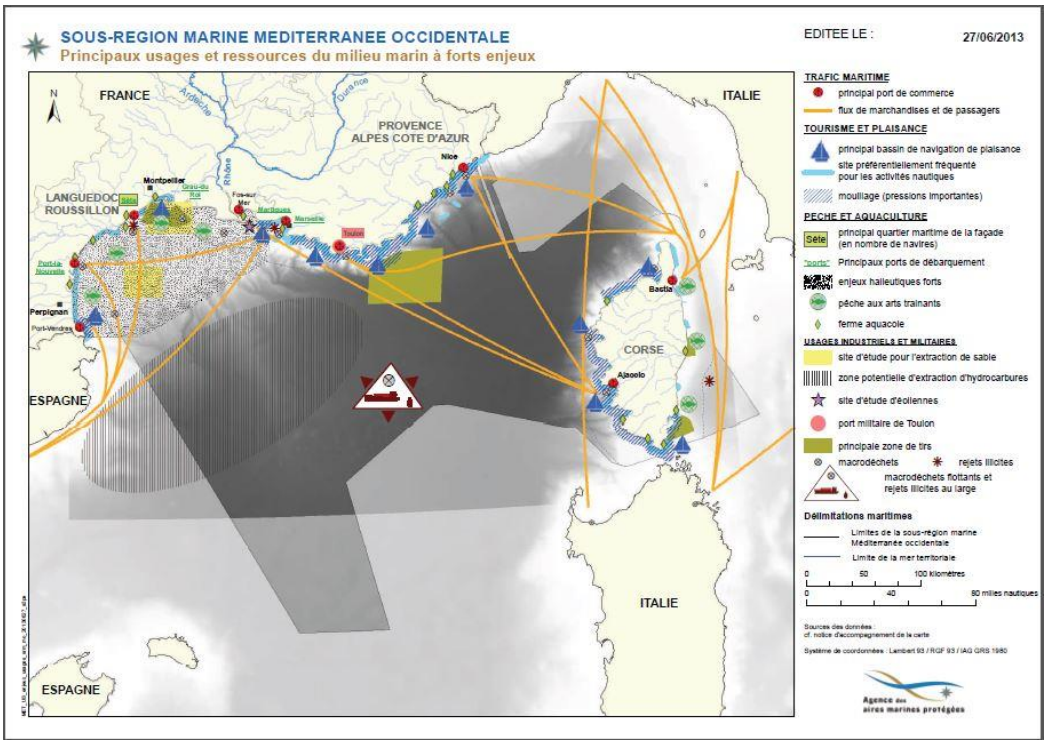

Figure 3.6. MSP planning document

3.2.2 Planning for marine wind energy (2014–2015)[112]

Marine wind energy is a new economic sector which requires a public body to oversee and promote its development.

The Prime Minister announced, on 2 December 2014, the launch in June 2015 of a call of demonstration of interest, with 150 million euros of allocation for such projects.

To define the sectors capable for supporting OWF developments the Minister for ecology, sustainable development and energy requested a planning document to be produced. This is the responsibility of the regional prefects of Provence-Alpes-Côte d'Azur and of the maritime prefect of the Mediterranean. It should consult all stakeholders and consider technical, economic, social and environmental criteria.

The project has access to national studies relating to the technological and economic potential (Cerema map study, Figure 3.7) and the electricity grid connection potential (study RTE).

The Maritime Council of Frontage, launched on 8 December 2014, opened a cycle of dialogue for the planning of wind power generation in the Mediterranean sea.

Several thematic workshops were arranged. These included fishing, defence, environment and transport. The results from these meetings were presented and discussed at a meeting in Languedoc-Roussillon, on 3 February 2015.

This work is continuing with the organization of a meeting in Provence-Alpes-Côte d'Azur, additional workshops, and a public consultation.

At the end of April 2015, this will provide the Minister of Sustainable Development with a plan aimed at the best balance between technical and economic potential, in respect of maritime activities and safeguarding the environment.

The Mediterranean coast has the potential to develop winder energy. However, its bathymetry and competition for space (e.g. tourism, fishing, aquaculture and maritime transport, etc) limit the possibilities of installing OWFs[113].

Planning document extracts from 2009/2010

4.5.1. Technical limits retained for the process of dialogue

The participants of several working groups considered the 40 m depth technical limit for identifying suitable development areas. Taking into account the advanced technologies currently, or soon to be,

[112] Concertation sur la planification de l'éolien en mer Méditerranée http://www.dirm.mediterranee.developpement-durable.gouv.fr/planification-sur-l-eolien-en-mer-2014-2015-r198.html

[113] Cf Document de planification du développement de l'énergie éolienne en mer régions Provence Alpes Côte d'Azur et Languedoc Roussillon, 2010, site de la DIRM, → politique intégrée mer et littoral → éléments de planification thématiques →planification sur l'éolien posé en mer .

available some would have wished that floating wind turbines were taken into account, or that greater depths for establishing OWFs were considered.

It was indicated that dialogue is crucial to continue developing OWF technologies. Floating turbines are still at an experimental stage and their constraints are yet to be established.

However, the current constraints of fixed turbines are known. They cannot be built in depths greater than 40 m as beyond this depth technological and economic restrictions begin to apply.

5.3. Analysis of the zones of wind potential and the zones of sensitivity
OWFs are further restricted by environmentally sensitive areas. The areas with the greatest wind potential typically overlap with highly sensitive environments.

However, sensitive areas do not necessarily prohibit OWF developments. When building an OWF in a sensitive area the developer must analyse the impacts of the development on both the environment and socio-economic factors. It may then be necessary to develop mitigation strategies and off-setting in response to these impacts. This is often required under legislative and regulatory frameworks.

Current planning documents allow developers to identify the challenges which they will face during their project development.

Suitable areas for OWF developments in the Mediterranean (see Figure 3.7) are heavily restricted by biologically rich areas. Typically these are close to the coast, in areas with suitable water depths for fixed turbines. The limited coastal shelf makes exploration further offshore impossible with the current technology.

Assessments have concluded that floating OWFs are the most suitable technology for Mediterranean countries (including France). These are currently in development and require a moderate capacity of 30–50 MW to become economically viable.

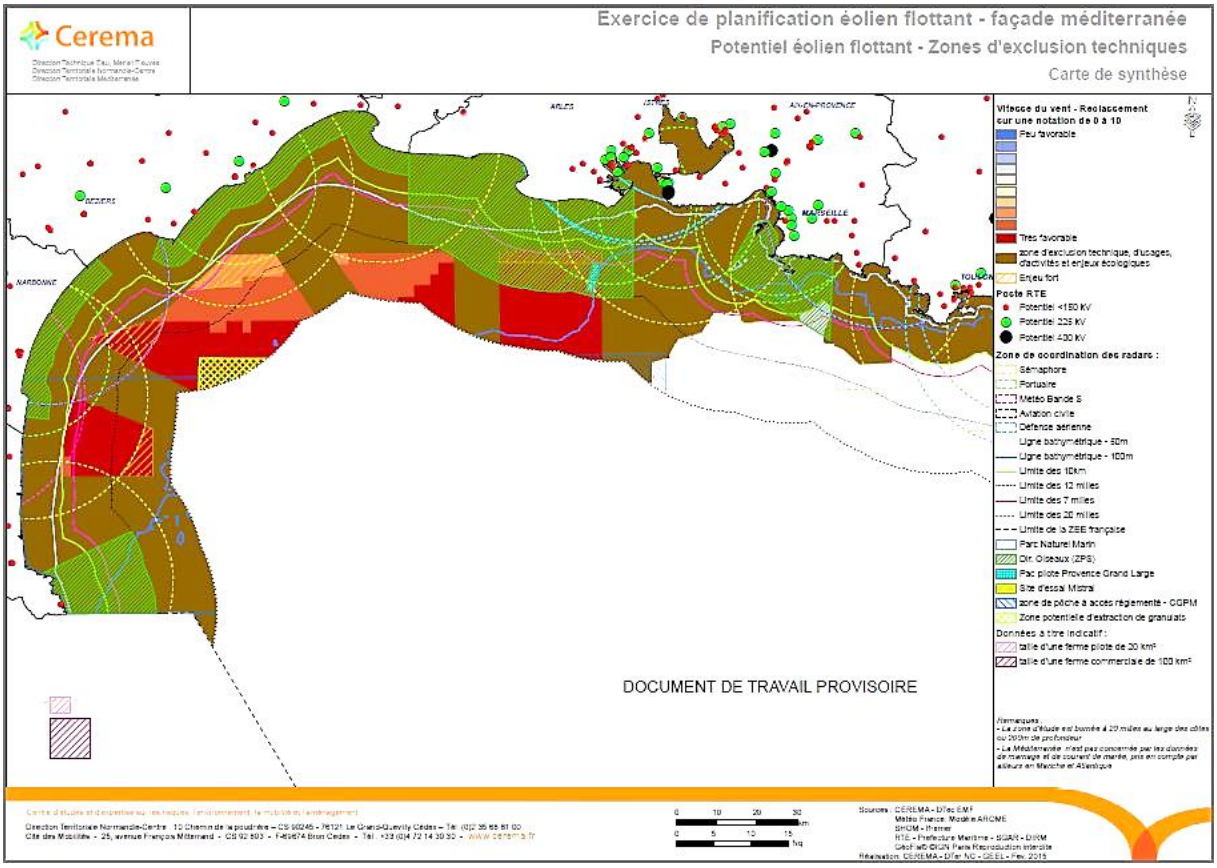

Figure 3.7. Map of suitable areas for OWF development in the Mediterranean

3.2.3 Le Parc Marin du Golfe du Lion[114]

The concept of the natural marine park was created by the law of 14 April 2006[115].

As an innovative management tool for the marine space, it is adapted to ensure that natural heritage, rich ecosystems and multiple maritime activities can co-exist. It enables coherent and coherent management of these spaces by integrating all public policies.

A natural marine park is an MPA for a new generation, a management tool devoted to the sea[116] which has the ambition to meet three fundamental aims:

- Knowledge of the marine environment
- Protection of the marine environment and its species
- Contribution to the sustainable development of maritime activities

[114] Données sur site du parc cet agence des aires marines protégées : www.parc-marin-golfe-lion.fr / www.aires-marines.fr

[115] www.legifrance.gouv.fr . Cette loi traduit les engagements de la charte de l'environnement adoptée en mars 2005, qui fait de la préservation de l'environnement un objectif constitutionnel. Elle s'insère également dans la stratégie de la biodiversité adoptée en février 2004. www.senat.fr/dossier-legislatif/pjl05-114.html

[116] Présentation **Bruno Ferrari**, directeur scientifique du Parc, workshop 8.1.12 CNRS pour le projet Coconet, janvier 2014.

These objectives are complementary: the maritime activities, in most cases, depend on the good ecological state of the marine environment. The business and leisure users are also privileged observers of the maritime and coastal environment. The natural marine park also has a role in education. To date, there are five natural marine parks in France:

- Le Parc naturel marin d'Iroise, created 28 September 2007
- Le Parc naturel marin de Mayotte, created 18 January 2010
- Le Parc naturel marin du golfe du Lion, created 11 October 2011
- Le Parc naturel marin des Glorieuses, created 22 February 2012
- Le Parc naturel marin des estuaires picards et de la mer d'Opale, created 11 December 2012.

After four years of dialogue and a public survey conducted in 2010, the decree of creation of the Natural Marine Park of the Gulf of Lions was published on 11 October 2011.

It is located off the Eastern Pyrenees and covers 12 coastal municipalities (see Figure 3.8). It includes the three underwater canyons: Lacaze-Duthiers, Pruvot and Bourcart.

The boundary takes into account scientific data, socio-economic realities, constraints of management and the contribution of the local stakeholders during the development of the park.

The boundary of the park makes it possible to address two ambitions:

- Ecological coherence: it integrates all natural habitats, interdependent ecosystems and proposes a suitable management of these natural resources
- Socio-economic identity: it corresponds to commercial (e.g. fishing, maritime transport, etc) and leisure (e.g. diving, sailing, sport fishing and tourism, etc) activities.

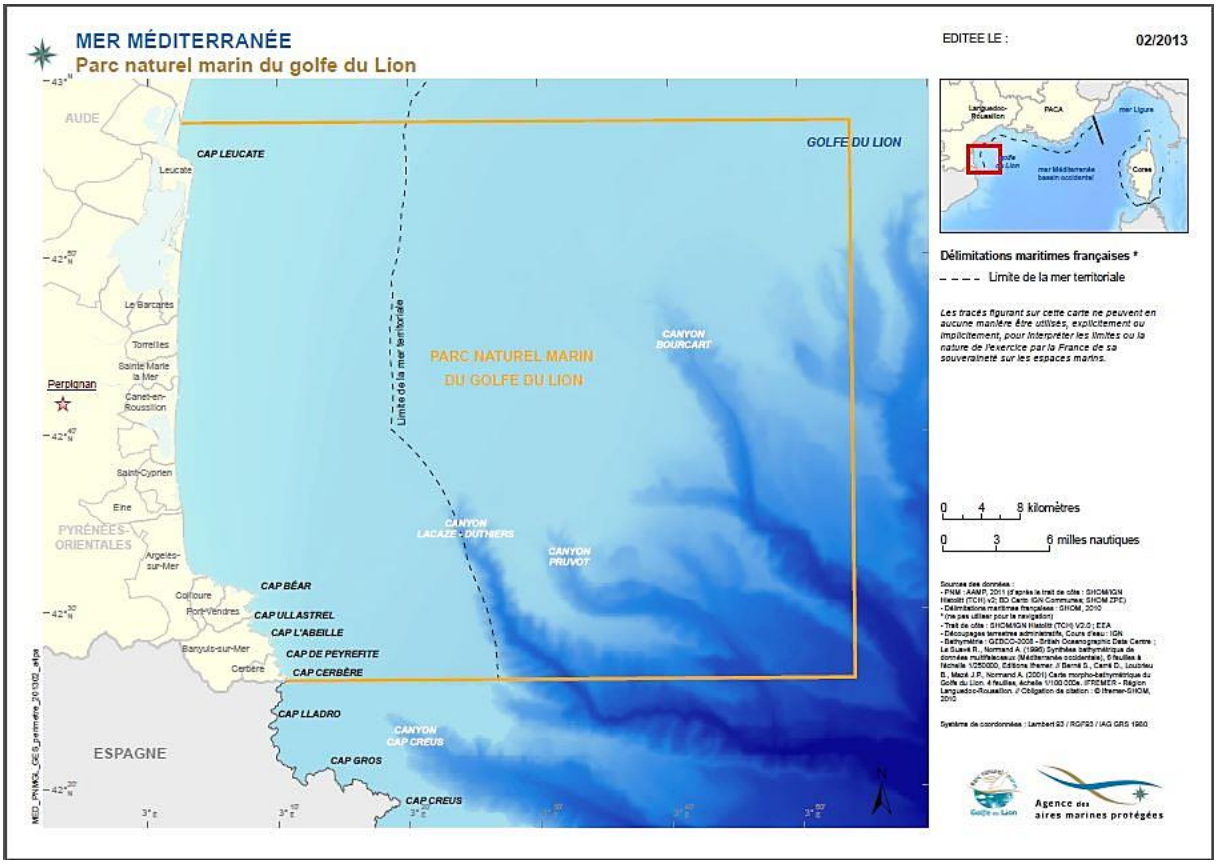

Figure 3.8 Map of the Natural Marine Park of the Gulf of Lions

The concentration, diversity and complexity of the ecosystems present in the maritime space of the park are exceptional, in terms of habitats and landscapes as well as of associated fauna and flora.

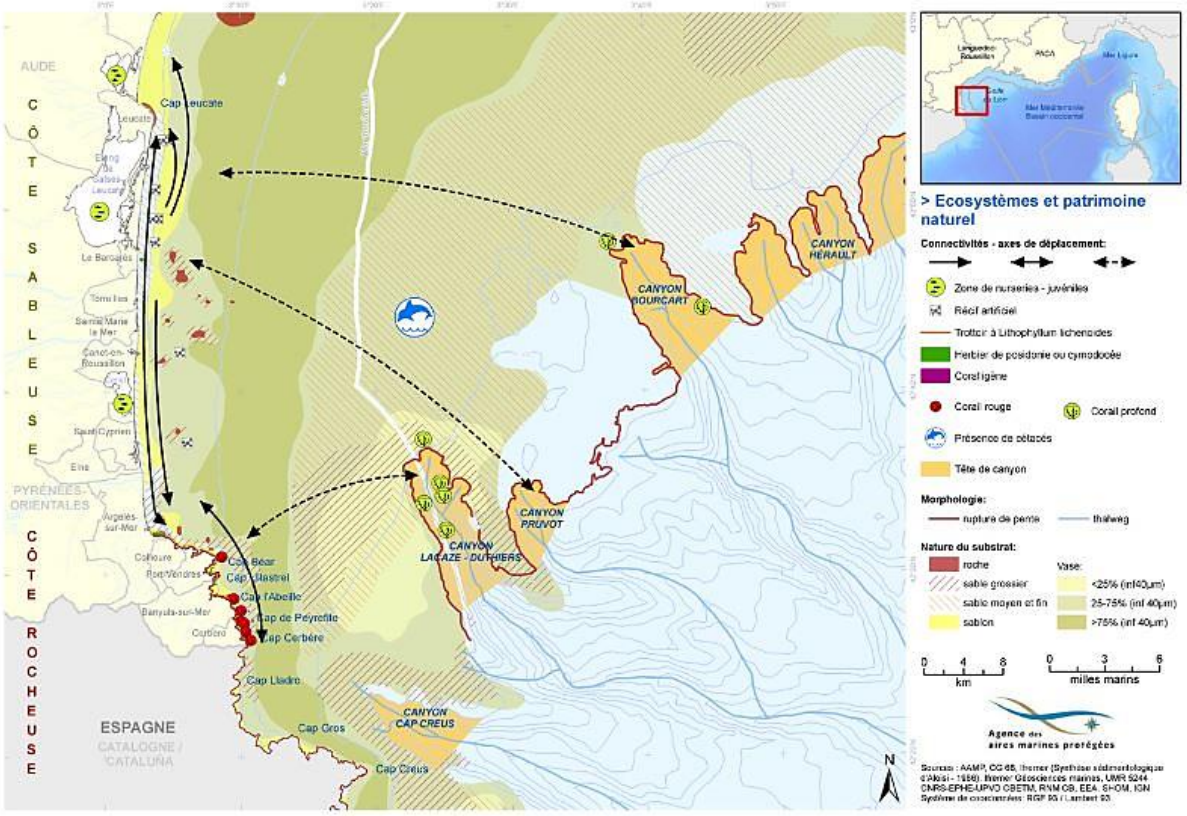

Figure 3.9. Map showing conservation features of the Natural Marine Park of the Gulf of Lions

The objectives for the park are defined by eight management objectives:

- To create a reference area knowledge and research of the marine environment;
- To protect the marine natural heritage from the littoral to the deep canyons;
- To preserve and improve water quality
- To support sustainable development of maritime economic activities;
- To support the management of the natural resources as well as the longevity of the activities which depend on it;
- To support development of the activities of sustainable nautical tourism;
- To contribute to the protection and the development of the maritime cultural heritage;
- To consider a co-operation with Spain.

The management council

The Natural Marine Park of the Gulf of Lions is controlled by a council which brings together 60 members: elected officials, representatives of commercial and leisure activities, environmental and cultural associations, qualified individuals and services of the State.

The council of management has the following functions:

- It sets the rules of procedure

- It prepares a management of the natural marine park which determines over 15 years of research and sustainable development
- It defines actions to implement the management plan and ensure periodic evaluation and the revision
- Annual reporting
- It provides technical support for projects of environmental protection and sustainable development which have a positive impact on the quality of water, the conservation of the natural habitats and species.

The council gives opinions and ensures conformity and is an effective decision making body.

Activities which are likely to have a notable effect on the marine environment of the park, are subject to the assent of the board of trustees" (article L 334-5 of the code of the environment). For these activities, the opinion of the council must be followed by the public authorities responsible for authorization.

For example, it is possible for the council to be opposed to an activity which could degrade the natural environment or compromise socio-economic activities within the park. This is the case for offshore wind power.

Within the framework of these priorities the park is required to set the agenda for wind energy planning in the French Mediterranean region at the request of the Minister for Sustainable Development. Meetings and workshops to explore the topic have been arranged.

The first analysis will identify zones suitable for OWF installation in and near the territory of the Natural Marine Park of the Gulf of Lions.

The park's working groups are a subsection of the management council, with members chosen to investigate particular issues, according to a mandate defined by the Office. Each working group gives an account of its work to the council and presents proposals for approval by the Council. For this reason, a working group has the capacity to invite outside contributors to shed more light on the topic under discussion, or give presentations and bring brief replies to questions asked by the working group.

A working group to focus on wind power generation in the park was created on the 27 January 2015 (see the excerpt below). The existence of this group was announced during the restitution of the discussions for the area Languedoc-Roussillon, on the 3 February 2015 in Montpellier.

Topics to be discussed by the working group are:

- The compatibility of OWFs with the management plan
- Visual impacts of OWFs
- Mapping of appropriate zones (and inappropriate) zones for development

Monsieur Michel Moly, president of the Natural Marine Park of the Gulf of Lions, and Monsieur Marc Planas, President of the Commission, validated the constitution of this working group

CoCoNet representatives (Professor Féral and Laurence Marril) were invited to attend the working group investigating wind power at sea at the meeting on23 February 2015. CoCoNet experience of public opinion on wind energy planning at sea within the Natural Marine Park of the Gulf of Lions was presented. Legal elements from CoCoNet research were also presented.

3.2.3 Preparatory note for the creation and constitution of a working group OWFs

Within the framework of the planning for OWFs in the Mediterranean, the Prefecture of the Provence-Alpes-Côte d'Azur (PACA) region received a mandate from the Minister for Ecology to carry out consultation. The intention is to identify appropriate zones for development. The consultation will be completed before the registration of interest phase for developers begins.

The management plan aims to support sustainable development which integrates environmental protection and socio-economic development. It must also give priority to local stakeholders and encourage their participation. The challenge for the management body is to integrate the needs and spatial requirements for all stakeholders (including public bodies and private projects).

Elements of positioning of the Natural Marine Park of the Gulf of Lions on Renewable Marine Energies (EMR)

The management body has the responsibility to integrate renewable energy projects without compromising the conservation objectives of the management plan. The management body, in collaboration with the working group, must identify locations where OWF impacts will be minimal.

The identification of zones of least impact will facilitate the development of OWFs. Any application for OWFs developments will be subject to the approval of the park council. Decisions will be made based on potential environmental impacts and will inform developers on monitoring requirements.

The identification of 'zones of least impact' will consider marine biodiversity, habitats, uses and the location of commercial activities as identified by the management plan.

The French Agency of Marine Protected Areas also has input on the decision making process as they responsible for the national territory, including MPAs and natural marine parks.

The principal points for monitoring and recommendations for the implementation of the project are:

- To start the process of dialogue as early as possible, by including all the relevant stakeholders
- To consider all potential environmental impacts within the development zone of influence
- To use all available data to assess the current state of the marine environment under consideration
- To ensure the project has no significant negative impacts on the marine environment and commercial activities
- To choose technical solutions to minimise the impact on species, habitats and other stakeholders

- To ensure relevance and feasibility of mitigation measures, and to plan measures to compensate for any significant impacts which remain
- To conduct both pre and post construction monitoring based on standardized and protocols, allowing data to be used to inform public policies

3.2.4 Schedule for OWF planning document in the PACA region

The PACA region pre-established a schedule to propose a document for planning OWFs.

At the next management council meeting the working group will present information to enable the following decisions to be made:

1. A spatial plan for the park taking into account biodiversity and commercial activities
2. Information (i.e. knowledge acquisition, monitoring, mitigation, etc.) required by the management body for the decision making process.

The schedule of meetings of the working group will be validated during the first meeting, according to the PACA region calendar.

The current aim is to establish a pilot floating OWF, covering an estimated area of 10–15 km². This is currently a pre-commercial farm and any future change to commercial developments will need to undergo a further review by the council.

Despite favourable wind potential, the available area for OWFs is restricted due to spatial conflicts (see Figure 3.7). The knowledge obtained from this pilot OWF could encourage changes in the planning process if current spatial restrictions can be lifted.

Locating an OWF within an MPA would provide opportunities to gain expert knowledge that is currently insufficient or non-existent[117]. This could be achieved as:

- Baseline data is more complete
- Monitoring programme are regular and standardized
- The impacts of OWFs on the marine ecosystems can be more easily to studied
- Monitoring studies can contribute to knowledge of the marine environment

[117] UICN France (2014). Développement des énergies marines renouvelables et préservation de la biodiversité.Synthèse à l'usage des décideurs. Paris, France.

Part 2: The Black Sea

Chapter 1. Black Sea strategies for renewable energies and OWFs

1.1 Promotion of renewable energy in the Black Sea region

Growth in the renewable energy sector within the new European Union Member States Bulgaria and Romania has been considerably advanced by the EU's energy policy. Directive 2009/28/EC sets a binding renewable energy target of 20% for 2020 and differentiated national renewable energy targets. But even beyond the EU's borders, the energy policy of the countries in the Black Sea region is influenced by the European commitment to renewable energies.

The main driving force behind this is the alignment with EU regulations. Ukraine was required to implement the Energy Community acquis and thus Directive 2009/28/EC by January 2014[118], and the recently signed Association Agreement (Art. 338 j)[119] contains further obligations with regard to the promotion of renewable energy. Georgia also signed an Association Agreement in 2014 that requires the implementation of Directive 2009/28/EC (Art. 298 i, 300 and Annex XXV)[120] and it currently plans to accede to the Energy Community[121]. The accession negotiations of the EU with Turkey and its (currently fraught) strategic partnership with Russia also contribute to an expansion of the EU energy policy. Finally, the Renewable Energy Directive allows Member States to meet their national renewable energy targets by investing in joint projects realized in non-EU Member States (Art. 9).

The Black Sea countries have not adopted a common strategy for renewable energy yet. The issue has been addressed within the framework of the Black Sea Economic Co-operation (BSEC)[122], but has not been included in the provisions of the Bucharest Convention (Convention on the Protection of the Black Sea Against Pollution) system. The next Strategic Action Plan is planned to be more progressive in this regard.

1.2 The main challenges in the region[123]

Effective and stable support mechanisms have proven key to sustained wind energy growth.
All the countries of the Black Sea region have set up a support mechanism for wind energy. These mechanisms, however, are diverse in design and effectiveness.

[118] Energy Community: Acquis on Renewables: https://www.energy-community.org/portal/page/portal/ENC_HOME/ENERGY_COMMUNITY/Legal/EU_Legislation
[119] Association Agreement between the Ukraine and the European Union: http://eeas.europa.eu/ukraine/docs/association_agreement_ukraine_2014_en.pdf
[120] Association Agreement between the Ukraine and Georgia: http://eeas.europa.eu/georgia/pdf/eu-ge_aa-dcfta_en.pdf
[121] Energy Community: Who are we: https://www.energy-community.org/portal/page/portal/ENC_HOME/ENERGY_COMMUNITY/Who_are_we
[122] For example in the BSEC Action Plan on Energy: http://www.bsec-organization.org/aoc/Energy/Pages/ActionP.aspx
[123] European Wind Energy Association, "Eastern Winds / Emerging European wind power markets" (February 2013): http://www.ewea.org/fileadmin/files/library/publications/reports/Eastern_Winds_emerging_markets.pdf, p. 6

Problems in the Black Sea region with regard to the promotion of renewable energies include vague, unpredictable and frequently (sometimes even retroactively) changing rules, lengthy and obscure approval procedures and a lack of know-how of the competent authorities.

Moreover, there are not always appropriate planning instruments to ensure that wind energy is deployed in harmony with the natural environment. In particular, approval criteria for wind farms in protected areas and rules on EIA are not always clearly defined.

1.3 Bulgaria

1.3.1 Promotion of renewable energies

The main problems currently facing the energy sector in Bulgaria are the energy intensiveness of the national GDP, which is 89% higher than the EU average, and the high dependency on energy imports of about 70% [124].

In 2004, Bulgaria's share of renewables in gross final energy consumption amounted to 9.6%, increasing to 14.4% in 2010 and to 14.6% in 2011. In 2012, Bulgaria's share of renewables was already 16.3%, against a target of 16% for 2020 under the European Renewable Energy Directive 2009/28/EC[125]. Especially installed capacities and electricity output of wind energy plants are expected to further increase until 2020, then accounting for up to 34% of the generated renewable energy[126].

The considerable growth in renewable energy installations, however, has already put pressure on the ageing power grid[127]. About 40% of the solar and wind power producers had to be temporarily disconnected in 2013[128]. Also, because of Bulgaria's support scheme for renewable energy, energy prices have become worryingly high considering that Bulgaria is one of the poorest countries of Europe. Thus, measures have been taken to limit the demand for renewable energy installations[129].

1.3.2 Key legal framework

- Energy Act (9 December 2003)[130]
- Energy from Renewable Sources Act (ERSA; 3 May 2011)[131]
- Ordinance on the Pricing of Electric Power (4 May 2004)[132]

[124] The Energy Strategy of the Republic of Bulgaria till 2020 – For a reliable, efficient and cleaner energy (June 2011), p. 4

[125] Sofia News Agency, "Bulgaria has achieved its 2020 Renewable Energy Target" (10 March 2014): http://www.novinite.com/articles/158807/Bulgaria+Has+Achieved+its+2020+Renewable+Energy+Target

[126] Ministry of Economy, Energy and Tourism: National Renewable Energy Action Plan (April 2011): http://pvtrin.eu/assets/media/PDF/EU_POLICIES/National%20Renewable%20Energy%20Action%20Plan/203.pdf, p. 208

[127] Ministry of Economy, Energy and Tourism: National Renewable Energy Action Plan (April 2011): http://pvtrin.eu/assets/media/PDF/EU_POLICIES/National%20Renewable%20Energy%20Action%20Plan/203.pdf, p. 18

[128] *Bauerova,* Ladka, "Bulgaria to suspend up to 40 % of wind, solar power capacity", Renewable Energy World (28 March 2013) http://www.renewableenergyworld.com/rea/news/article/2013/03/bulgaria-to-suspend-up-to-40-of-wind-solar-power-capacity / PV Grid, "National Updates Bulgaria": http://www.pvgrid.eu/national-updates/bulgaria.html

[129] *T*solova, Tsvetelia, "Bulgarian court overrules hefty fees on renewable energy", Reuters (15 March 2013): http://www.reuters.com/article/2013/03/15/bulgaria-energy-renewable-idUSL6N0C6EEP20130315

[130] Energy Act (2013): http://www.mi.government.bg/en/library/energy-act-256-c25-m258-1.html

[131] Energy from Renewable Sources Act (2011): http://www.mi.government.bg/en/library/energy-from-renewable-sources-act-167-c25-m258-1.html

- Resolution on Prices No. C-13 of the Bulgarian Regulatory Authority (1 July 2014)[133]

1.3.3 Competencies

- Ministry of Economy, Energy and Tourism
- State Commission for Energy and Water Regulation (SCEWR)
- Three licensed energy end-suppliers

1.3.4 The main instrument for renewable energy promotion: the feed-in tariff [134]

The main element of the Bulgarian support system is the feed-in tariff (FIT). The FIT is a guaranteed payment in the form of minimum payment rates (Art. 18 I item 6 ERSA).

Detailed information on the current tariffs is contained in Resolution No. C-13 (I item 8-11) of 1 July 2014. Wind power plants with an installed capacity of:

- up to 30 kW: BGN 137.98 per MWh (about €7 cent per kWh)
- up to 200 kW: BGN 128.51 per MWh (about €6.6 cent per kWh)
- up to 1 MW: BGN 116.98 per MWh (about €6 cent per kWh)
- more than 1 MW: BGN 95.55 per MWh (about €4.9 cent per kWh)

The costs arising from the support scheme are ultimately borne by the final consumers via the electricity bill (Art. 31 item 7 Energy Act).

1.3.5 Recent changes contrary to the promotion of renewable energy

A series of restrictive legislative changes occurred in 2011 and 2012 that have caused the wind energy industry to be concerned[135]. The term of the purchase agreements for wind energy was reduced from 15 to 12 years, feed-in tariffs are now fixed only when the construction of the renewable energy facility is completed and the energy regulator can frequently change the tariffs with no lower limit.

Also since May 2011, new installations are only connected to the grid if the grid operators and SEWRC announce free capacity for the year ahead. In 2012 and 2013, the SEWRC announced 'zero' years, since grid capacity was already reserved for projects with valid preliminary connection agreements[136].

The Law on the State Budget of the Republic of Bulgaria for 2014 introduced further amendments to the ERSA[137]. The purchase obligation of the National Electricity Company EAD (NEC) and of the three licensed end-suppliers is now limited to the average annual production duration determined for each

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[132] Ordinance on Regulating the Prices of Electric Power (2004): http://www.dker.bg/files/DOWNLOAD/ordinance_electro_en.pdf

[133] Resolution on prices No. C-13 (2014): http://dker.bg/files/DOWNLOAD/res_c-13_14.pdf

[134] *Jirouš,* Filip, Legal Sources on Renewable Energy, Bulgaria: http://www.res-legal.eu/search-by-country/bulgaria/summary/c/bulgaria/s/res-e/sum/112/lpid/111/

[135] CWP Bulgaria: http://continentalwind.com/bulgaria-1

[136] *Sirleshtov,* Kostadin, *Stoyanoff,* Pavlin, „The Current Status Of The Bulgarian Energy & Natural Resources Sector", Corporate Live Wire: http://www.corporatelivewire.com/top-story.html?id=the-current-status-of-the-bulgarian-energy-natural-resources-sector / Wind energy in Bulgaria: http://observer.cartajour-online.com/barosig/Fichiers/BAROSIG/Valeurs_indicateurs/W_Bulgaria-ang.htm / PV Grid, "National Updates Bulgaria": http://www.pvgrid.eu/national-updates/bulgaria.html

[137] The World Bank, „Republic of Bulgaria: Power Sector Rapid Assessment" (27 May 2013): http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/05/30/000356161_20130530122419/Rendered/PDF/781130WP0Box370essment00May270final.pdf, p. 20

type of renewable energy. Moreover, a new fee amounting to 20% of the FIT for the production of electricity by solar and wind power plants has been introduced. This fee, however, has later been declared unconstitutional[138].

These frequent changes of terms, also for already existing projects, undermine the reliability of Bulgaria as an investment destination[139].

1.3.6 Protected Areas and the Energy Strategy of the Republic of Bulgaria till 2020[140]/the National Renewable Energy Action Plan (April 2011)[141]

Natura 2000 protected areas cover about 34% of the Bulgarian territory, and their concentration is greatest in the regions with the highest wind potential. Initially, wind power producers were only subjected to additional environmental impact evaluations in Natura 2000 areas. The Bulgarian authorities, however, are tightening the procedures now, which could lead to a full exclusion of wind energy projects from these areas[142].

On 4 September 2012, the Ministry of Economy, Energy and Tourism published on its website a new version of the NREAP. It says that for wind energy projects planned in areas important for the conservation of endangered species, especially Natura 2000 sites, no environmental assessments will be conducted and thus no permits will be issued until 2020[143]. Recently, the Director of the Regional Inspectorate of Environment and Water in Bourgas has stopped the EIA procedure for the construction of a wind farm with 10 turbines, planned along the bird migration flight path near the Black Sea[144].

1.4 Georgia

1.4.1 Promotion of renewable energies

Georgia's energy supply security is highly dependent on imported fossil fuels, which implies a high risk of economic and political dependence. Georgia thus aims at maximising the utilization of renewable sources and at enhancing its energy efficiency[145].

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[138] KPMG, "Bulgaria – renewable energy fee held unconstitutional", http://www.kpmg.com/global/en/issuesandinsights/articlespublications/taxnewsflash/pages/2014-1/bulgaria-renewable-energy-fee-held-unconstitutional.aspx

[139] Cf. The open letter of the Bulgarian Wind Energy Association (13 December 2013): http://bgwea.org.server14.host.bg/Materials/News_Release/RES_Tax_201311/20131213_Open_Letter_BGWEA_EN.pdf

[140] The Energy Strategy of the Republic of Bulgaria till 2020 – For a reliable, efficient and cleaner energy (June 2011)

[141] Ministry of Economy, Energy and Tourism: National Renewable Energy Action Plan (April 2011): http://pvtrin.eu/assets/media/PDF/EU_POLICIES/National%20Renewable%20Energy%20Action%20Plan/203.pdf

[142] Decarboni.se: Solutions to Climate Change / Bulgaria: http://decarboni.se/publications/eastern-winds-emerging-european-wind-power-markets/31-bulgaria

[143] Bulgarian Wind Energy Association, News: http://bgwea.org.server14.host.bg/English/News_EN.html

[144] Bird Life International, "National renewable energy Action Plan in Bulgaria ensures biodiversity conservation" (1 November 2012): http://www.birdlife.org/europe-and-central-asia/news/national-renewable-energy-action-plan-bulgaria-ensures-biodiversity

[145] National Policy of Georgia on Developing Renewable Energy Sources, Transparency International Georgia (2008): http://www.greengeorgia.ge/sites/default/files/National%20Policy%20of%20Georgia%20on%20Developing%20Renewable%20Energy%20Sources.pdf, p. 1

Georgia is endowed with rich wind energy potential that is estimated to be able to annually generate 4 billion kilowatt hours. In November 2013, the Georgian energy minister Kakha Kaladze announced in parliament that a site has been chosen for the first wind energy generation project. Construction was expected to begin at the end of 2014, and the ministry has plans for an extension of the wind farm to up to 150 MW[146].

1.4.2 Key legal framework

- Law on Electricity and Natural Gas (1997)
- Electricity (Capacity) Market Rules
- Resolution of Parliament on "Main Directions of State Policy in the Power Sector of Georgia"(2006)
- State Programme "Renewable Energy 2008"
- Renewable Energy Law - first draft already prepared[147]
- Energy Efficiency law

1.4.3 Competencies

- Ministry of Energy
- Georgian National Energy and Water Supply Regulatory Commission (GNERC)
- Georgian State Electrosystem LLC (GSE) – technical operator
- Electricity System Commercial Operator (ESCO)

1.4.4 The main instrument for renewable energy promotion

Currently, there is no special legislation for the promotion of renewable energy in Georgia, and the legislation for the power sector focuses on the support of small power plants[148].

To facilitate investment in the country's renewable energy sector, the Government of Georgia decided, on 8 December 2010, to establish the Georgian Energy Development Fund (GEDF) by adopting Order No. 1564[149]. Moreover, the tax code in force until January 2005 allowed for the exemption of the production of renewable energies from value-added tax, taxes on land, ownership, and profit, and from tariffs on importing, producing, and utilizing the equipment necessary for the development of renewable energies. The new tax code and the rules on tariffs, however, do not contain such privileges anymore[150].

Georgia is a candidate country for membership of the European Energy Community (EEC). The goal of the EEC is to import the energy policy of the EU into non-EU countries, thus to extend the

[146] Wind Power Monthly: http://www.windpowermonthly.com/article/1223048/georgia-makes-first-move-wind-power

[147] *Tushurashvili,* Giogi, "Energy Strategy and Energy Policy Development for the Promotion of clean Energy in Georgia" (200)3: http://www.energy-community.org/pls/portal/docs/1910181.PDF, p. 4

[148] Prospects of Renewable Energy Development in Georgia – Rural Energy Program / USAID, Winrock international: http://www.greengeorgia.ge/sites/default/files/Prospects%20of%20Renewable%20Energy%20Development%20in%20Georgia.pdf, p. 5

[149] Georgian Energy Development Fund: http://hydropower.ge/user_upload/GEDF.1-page.Mar-10.pdf, p. 1

[150] National Policy of Georgia on Developing Renewable Energy Sources, Transparency International Georgia (2008): http://www.greengeorgia.ge/sites/default/files/National%20Policy%20of%20Georgia%20on%20Developing%20Renewable%20Energy%20Sources.pdf, p. 13

Community acquis, especially to South East Europe and the Black Sea region[151]. This includes, inter alia, the European Directive 2009/28/EC on the promotion of the use of energy from renewable sources.

1.5 Romania

1.5.1 Promotion of renewable energies

In 2008, renewable energy in Romania was almost exclusively produced by hydroelectric power plants, the share of wind power was insignificant. However, the measures taken by Romania to promote other forms of renewable energy generation quickly started to prove their efficiency. Between 2008 and 2010, installed wind capacity almost doubled, from 7,754 to 14,155 MW[152]. In 2012, Romania showed the highest global growth rate for commissioned wind power plants[153], and, at the end of September 2014, wind parks totalled 2,805 MW in installed capacity[154].

In the National Renewable Energy Action Plan of 2010, however, it is assumed that, at least until 2020, no offshore installations will be established since attention and funds shall be concentrated on the establishment of onshore installations. As an explanation, the Action Plan points to the problems related to the discharge of the power generated in the Dobrogea region, which have shown the difficulties of establishing offshore installations[155].

Romania has set itself an ambitious target for the promotion of energy from renewable sources, the share of electricity produced from such sources out of the total electricity gross consumption shall be 33% in 2010, 35% in 2015 and 38% in 2020 (Energy Strategy 2007–2020/Law 220/2008)[156]. According to the European Commission Decision 2009/548/EC, Romania has to reach a target of 24% of energy from renewable sources in gross final consumption of energy by 2020[157]. This target was already achieved in January 2014[158].

However, to curb electricity price increases for households and industry resulting from the generous national support scheme, the Romanian government started to look for ways to make it less attractive and therefore less costly. This sudden change of strategy could harm Romania's image, which relies largely on foreign investment in renewable energies (40% of the foreign direct

[151] Energy Community: http://www.energy-community.org/portal/page/portal/ENC_HOME/ENERGY_COMMUNITY/What_we_do
[152] National Renewable Energy Action Plan (NREAP), Bucharest 2010: http://www.ebb-eu.org/legis/ActionPlanDirective2009_28/national_renewable_energy_action_plan_romania_en.pdf, p. 21
[153] UNDP, "Renewable Energy Snapshot: Romania": http://armandgroup.eu/ro/wp-content/themes/html5blank-master/img/certificate-si-autorizari/Renewable-Energy-Snapshot-Romania.pdf
[154] Energyworld, "Romania: Renewable Energy reaches 4,725 MW of installed capacity" (3 November 2014): http://www.energyworldmag.com/03/11/2014/romania-renewable-energy-reaches-4725-mw-of-installed-capacity/
[155] National Renewable Energy Action Plan (NREAP), Bucharest 2010: http://www.ebb-eu.org/legis/ActionPlanDirective2009_28/national_renewable_energy_action_plan_romania_en.pdf, p. 191
[156] National Renewable Energy Action Plan (NREAP), Bucharest 2010: http://www.ebb-eu.org/legis/ActionPlanDirective2009_28/national_renewable_energy_action_plan_romania_en.pdf, p. 13
[157] European Commission, National targets: http://ec.europa.eu/europe2020/pdf/targets_en.pdf
[158] Business Review, "Renewable energy overshoots target, reaching 41 pct of Romania's electrical consumption" (21 March 2014): http://business-review.eu/featured/renewable-energy-overshoots-target-reaching-41-pct-of-romanias-electrical-consumption-58521

investment into Romania in 2012)[159]. The new regulations not only discourage future investments in the renewables sector, but also impact operational investments[160].

1.5.2 Key legal framework[161]

- Electricity Law No. 123/2012[162]
- Law No. 220/2008 "Establishing a System for the Promotion of Electricity Generation from Renewable Sources"[163], amended by Emergency Regulation No. 88/2011 and Emergency Regulation No. 57/2013[164]

1.5.3 Competencies[165]

- ANRE creates and implements a regulatory system to ensure the functioning of the electricity, heat and gas markets.
- TRANSELECTRICA SA is the Romanian Transmission and System Operator.
- OPCOM is the Romanian electricity market administrator.

1.5.4 The main instrument for renewable energy promotion: the quota system

Romania has established a quota system that aims at promoting electricity from renewable sources. The quota system is complemented by the issuance of green certificates for each megawatt generated by renewable energies and the obligation of power suppliers and large users to buy them according to the annual quota set by the energy regulator. The costs of this quota system are borne by the consumers through the electricity price.

Wind energy is eligible for support according to Art. 3 I b) Law No. 220/2008. Eligibility ends normally after 15 years (Art. 3 II a) Law No. 220/2008).

Quota per year[166]

The percentage of electricity from renewable sources to be delivered was planned to amount to 10% in 2011, 15% in 2014 and 20% in 2020 of the total annual electricity sold (Art. 4 IV, V Law No. 220/2008). Since 2014, the share of electricity from renewable energy sources to be delivered is defined on an annual basis by the energy regulator ANRE. The annual quota for 2014 was frozen at the level registered in 2013, thus at 11.1% of Romania's final gross energy consumption (Decision No. 224/2014).

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[159] Balkans.com, "Smaller renewable energy companies in Romania are expected to start filing for bankruptcy"(15 October 2014): http://www.balkans.com/open-news.php?uniquenumber=197817

[160] *Cojocaru,* Monica, *Piuk,* Markus, "Romania: Changes to Romania's Renewable Energy Laws", Schoenherr Attorneys at Law (7 June 2013): http://www.mondaq.com/x/243546/Renewables/Changes+To+Romanias+Renewable+Energy+Laws

[161] *Bozsoki,* Ingrid, Legal Sources on Renewable Energy, Promotion in Romania: http://www.res-legal.eu/search-by-country/romania/tools-list/c/romania/s/res-e/t/promotion/sum/184/lpid/183/

[162] **MonitorulJuridic, LEGE nr. 123 din 10 iulie 2012: http://www.monitoruljuridic.ro/act/lege-nr-123-din-10-iulie-2012-energiei-electrice-si-a-gazelor-naturale-emitent-parlamentul-publicat-139677.html**

[163] Energy Street, Legge n. 220/2008: http://energystreet.ro/ro/wp-content/uploads/2011/08/AA.pdf

[164] Romaniascout, Government Emergency Ordinance No. 57/2013: http://romaniascout.ro/wp-content/uploads/2013/06/OUG-57-din-04.06.2013-M.Of_.-335-din-07.06.2013.pdf

[165] Braun Partners, "The System of Incentives for Renewable Energy in Romania": http://www.bpv-bp.com/download/newsalerts/120618_%20news_%20alert_res_%20romania.pdf, p. 3

[166] *Bozsoki,* Ingrid, Legal Sources on Renewable Energy, Promotion in Romania / Quota system: http://www.res-legal.eu/search-by-country/romania/single/s/res-e/t/promotion/aid/quota-system-4/lastp/183/

Number of certificates for wind energy[167]

1. Wind energy plants accredited before 31 December 2013:
   Until 2017: two certificates (Art. 6 II c) Law No. 220/2008 amended by Art. 1 IX Emergency Regulation No. 88/2011), from which one certificate is suspended until 31 March 2017 (Art. 1 III Emergency Regulation No. 57/2013), from 2018: one certificate per MWh of electricity generated.

2. Wind energy plants accredited after 1 January 2014:
   Until 2017: 1.5 certificates, from 2018: 0.75 certificates per MWh of electricity generated (Art. 1 IX Emergency Regulation No. 88/2011 in conjunction with Art. 1 b) Decision No. 994/2013).

If the parameters specific to each technology for producing electricity significantly differ from the ones constituting the computation base according to Law 220/2008, ANRE can reduce, after approval through a Government Decision, the number of green certificates for the respective technologies (Art. 1 XIII Emergency Regulation No. 57/2013)[168].

The price for electricity is determined on the electricity market, whereas the additional price for the green certificates is determined on a separate centralized market[169]. There is a set value range for green certificates between at least €27 and at most €55 (Art. 11 Law No. 220/2008). If a supplier or a producer fails to meet the annual quota, they have to buy the missing certificates at €110 each, as a penalty[170].

1.5.5 Renewable energy and the environment

The National Renewable Energy Action Plan points out that "it is necessary to draw up studies on the impact of wind turbines on bird migration in Dobrogea and to define a clear and single map of areas where the construction of wind and hydro energetic facilities is not appropriate on environmental grounds"[171]. Almost 18% of the country falls under the scope of the Natura 2000 programme and an important share of protected areas are located within the Dobrogea and Banat regions, which have the highest wind potential. Wind power producers are not automatically excluded from Natura 2000 protected areas, but they are subject to additional environmental impact evaluations. However, there are wind farm operators that have obtained permits in Natura 2000 areas[172].

[167] *Bozsoki,* Ingrid, Legal Sources on Renewable Energy, Promotion in Romania / Quota system: http://www.res-legal.eu/search-by-country/romania/single/s/res-e/t/promotion/aid/quota-system-4/lastp/183/

[168] *De Rubin Meyer Doru & Trandafir,* "Renewable Energy: Romania and legislative instability" (7 August 2013): http://english.hotnews.ro/stiri-business-15334553-renewable-energy-romania-and-legislative-instability.htm

[169] *Plumb,* Ion, *Zamfir, Andreea, "Managing Renewable Energy: The Romanian Practice",* Review of International Comparative Management, Volume 10, Issue 1, March 2009: http://core.kmi.open.ac.uk/download/pdf/6330983.pdf, p. 39

[170] *Bozsoki,* Ingrid, Legal Sources on Renewable Energy, Promotion in Romania / Quota system: http://www.res-legal.eu/search-by-country/romania/single/s/res-e/t/promotion/aid/quota-system-4/lastp/183/

[171] National Renewable Energy Action Plan (NREAP), Bucharest 2010: http://www.ebb-eu.org/legis/ActionPlanDirective2009_28/national_renewable_energy_action_plan_romania_en.pdf, p. 13

[172] European Wind Energy Association, "Eastern Winds / Emerging European wind power markets" (February 2013): http://www.ewea.org/fileadmin/files/library/publications/reports/Eastern_Winds_emerging_markets.pdf, p. 62-63

1.6 Russia

1.6.1 Promotion of renewable energies

Recent studies estimate that the technical potential of renewable energy in Russia amounts to at least 4.5 billion tons of coal equivalent per year, which exceeds the current energy consumption of the country more than four-fold. Solar and wind energy account for the biggest share of that potential[173].

However, installed wind power capacity was only 15.4 MW at the end of 2011 and the majority of that capacity came from small wind farms[174]. The political sensitivity of price increases in the energy sector for a long time has blocked all attempts to develop a level playing field for renewable energy production[175].

The energy sector is one of the major sources of environmental pollution in Russia and accounts for over 50% of emissions into the air, over 20% of polluted discharges into the surface waters, and over 70% of total greenhouse gas emissions[176]. Russian policymakers have thus finally recognized the importance of promoting renewable energies, which is reflected by the adoption of many relevant policy documents.

On 8 January 2009, the government approved the State Policy Guidelines for Promoting Renewable Energy in the Power Sector for the period up to 2020 by Resolution No. 1-r. The resolution states that 4.5% of all electricity produced and consumed in 2020 should be generated from renewable energy sources (1.5% in 2010 and 2.5% in 2015). However, the target of 1.5% by 2010 has not been met and it is highly improbable that, with the current legal and regulatory framework, the (non-mandatory) 4.5% target will be met by 2020[177]. In April 2013, the Government then adopted a reduced target of 2.5% in its State Programme for Energy Efficiency and the Development of the Energy Sector (Russian Federation Government Resolution No. 512-r / 3 April 2013). Thereby, without explicitly amending the 4.5% target, it indicated that the ambitions of Russia's renewable energy policy might be considerably reduced[178].

1.6.2 Key legal framework[179]

- Federal Law "On the Electric Power Industry" (No. 35-FZ/26 March 2003)

[173] Ministry of Energy of the Russian Federation: Energy Strategy of Russia for the period up to 2030, Moscow 2010, p. 110

[174] European Wind Energy Association, "Eastern Winds / Emerging European wind power markets" (February 2013): http://www.ewea.org/fileadmin/files/library/publications/reports/Eastern_Winds_emerging_markets.pdf, p. 112

[175] *Boute,* Anatole, "Russia's New Capacity-based Renewable Energy Support Scheme: An analysis of Decree No. 449", International Finance Corporation (2013): http://www.ifc.org/wps/wcm/connect/f818b00042a762138b17af0dc33b630b/Energy-Suppor-Scheme-Eng.pdf?MOD=AJPERES, p. 4

[176] Ministry of Energy of the Russian Federation: Energy Strategy of Russia for the period up to 2030, Moscow 2010, p. 35

[177] IFC Russia Renewable Energy Program: Renewable Energy Policy in Russia: Waking the Green Giant (2011) http://www.ifc.org/wps/wcm/connect/bf9fff0049718eba8bcaaf849537832d/PublicationRussiaRREP-CreenGiant-2011-11.pdf?MOD=AJPERES, p. 7

[178] *Boute,* Anatole, "Green Energy in Russia: Window-dressing, Protectionism, or Genuine Decarbonisation?", Russian International Affairs Council (13 March 2014): http://russiancouncil.ru/en/inner/?id_4=3286#top

[179] *Lednova,* Julia, RSHU, Contribution for the CoCoNET-Project / Deliverable 6.6 (2015), p. 4-6

- Federal Law "Introducing the Electricity Premium Scheme" (No. 250-FZ/4 November 2007)
- Federal Law "Introducing the Capacity-Based Scheme" (No. 401-FZ/28 December 2010)
- Decree of the Government "On Approval of a Package of Measures to stimulate Production of Electric Power Generating Facilities that operate through the Use of Renewable Energy" (No. 1839/4 October 2012)
- Decree of the Government "On a Mechanism for the Support of Renewable Energy Sources on the Wholesale Electric Power and Capacity Market" (No. 449/28 May 2013)
- Law of Krasnodar Krai "On Environmental Protection" (No. 657-KZ/31 December 2003)
- Law of Krasnodar Krai "On the Use of Renewable Energy Sources in Krasnodar Krai" (No. 723-KZ/7 June 2004)

1.6.3 Competencies[180]

Russian Government level

- Government Commission for Electric Power Development
- Government Commission for Electrical Supply Safety Protection

Federal level

- Russian Ministry of Energy
- Russian Ministry of Economic Development and Trade
- Federal Tariff Service

Infrastructural level

- System Operator of the Unified Energy System (UES)
- Federal Grid Company of the UES
- Inter-regional Grid Company
- Non-commercial partnership 'Market Council' – arranges an efficient wholesale and retail electricity and capacity trading system
- Commercial System Operator
- Centre for financial calculations

1.6.4 The main instrument for renewable energy promotion

Initially, the main element of the Russian approach to supporting renewable energy consisted of a premium added to the wholesale market price for the electricity produced by renewable energy facilities. That system was created by the Federal Law "Introducing the Electricity Premium Scheme" (No. 250-FZ/November 2007), which amended the Federal Electricity Law.

The amount of the premium was planned to be calculated so as to attain the national renewable energy targets. To prove that a certain amount of electricity has been produced by renewable energy sources, the Federal Electricity Law provides for a system of 'certificates'.

Then, in December 2010, the Russian authorities decided to move towards a unique and untested capacity-based scheme to support renewables[181] and approved the Federal Law "Introducing the

[180] Energy Forecasting Agency: http://www.e-apbe.ru/en/EP-sector/

[181] IFC Russia Renewable Energy Program: Renewable Energy Policy in Russia: Waking the Green Giant (2011) http://www.ifc.org/wps/wcm/connect/bf9fff0049718eba8bcaaf849537832d/PublicationRussiaRREP-CreenGiant-2011-11.pdf?MOD=AJPERES, p. 31

Capacity-Based Scheme" (No. 401-FZ)[182]. By this scheme, the installed capacity of renewable energy facilities is remunerated, thus buyers conclude 'Agreements for the Supply of Capacity'[183]. On 28 May 2013, the Government issued Resolution No. 449 'On a Mechanism for the Support of Renewable Energy Sources on the Wholesale Electric Power and Capacity Market'.

To minimize the costs of this support policy and thus the impact on end user electricity prices, the Administrator of the Trading System competitively selects renewable energy investment projects each year only up to a certain maximum amount of MW capacity, for example 250 MW for wind energy in 2015[184].

For now, only wind, solar and small hydropower plants are eligible to participate in the competitive selection process and proposed projects must be equal to or exceed 5 MW[185]. If selected, developers are entitled to capacity payments for a 15-year supply period for maintaining their facilities ready to generate energy[186].

In September 2013, Russia for the first time awarded such subsidies to 39 renewable energy projects[187]. But even though the government offered 1,100 MW of wind and 710 MW of solar in the first auction, most bidders were solar developers, who won 32 of the projects, while only seven wind projects received bids.

A reason for the sparse bidding for wind projects might have been that developers are required to use equipment that has been, at least partly, produced or assembled in Russia[188]. The local content target for wind energy for 2015 is 55% (Resolution of the Government No. 861-r).

1.6.5 Difficulties of the capacity-based approach

Because of the volatility of the output of wind energy, it is difficult for wind energy operators to demonstrate their readiness to produce electricity. According to Decree No. 449, the operators of renewable energy installations therefore only need to guarantee their readiness to interrupt the supply of electricity in response to an order of the System Operator[189].

The promotion of renewable energy through capacity payments furthermore involves the risk of remunerating investors for putting 'steel-in-the-ground', because they are incentivized to focus on

[182] IFC Russia Renewable Energy Program: Renewable Energy Policy in Russia: Waking the Green Giant (2011) http://www.ifc.org/wps/wcm/connect/bf9fff0049718eba8bcaaf849537832d/PublicationRussiaRREP-CreenGiant-2011-11.pdf?MOD=AJPERES, p. 32

[183] IFC Russia Renewable Energy Program: Renewable Energy Policy in Russia: Waking the Green Giant (2011) http://www.ifc.org/wps/wcm/connect/bf9fff0049718eba8bcaaf849537832d/PublicationRussiaRREP-CreenGiant-2011-11.pdf?MOD=AJPERES, p. 37

[184] *Boute,* Anatole, "Russia's New Capacity-based Renewable Energy Support Scheme: An analysis of Decree No. 449", International Finance Corporation (2013): http://www.ifc.org/wps/wcm/connect/f818b00042a762138b17af0dc33b630b/Energy-Suppor-Scheme-Eng.pdf?MOD=AJPERES, p. 7-8

[185] IEA Joint Policies and Measures Database: www.iea.org

[186] White & Case, Russian Legislation Update, 27 May – 23 June 2013

[187] *Roca*, Marc, Bloomberg, http://www.renewableenergyworld.com/rea/news/article/2013/09/russia-awards-first-renewable-energy-tender-to-boost-the-industry

[188] For the first time, Russia subsidizes renewable energy: https://www.sustainablebusiness.com/index.cfm/go/news.display/id/25245

[189] *Boute,* Anatole, "Russia's New Capacity-based Renewable Energy Support Scheme: An analysis of Decree No. 449", International Finance Corporation (2013): http://www.ifc.org/wps/wcm/connect/f818b00042a762138b17af0dc33b630b/Energy-Suppor-Scheme-Eng.pdf?MOD=AJPERES, p. 6-7, 12-13

installed capacity rather than on energy production. This contradicts one of the main objectives of renewable energy policy, which is to decarbonize electricity production. This risk has been addressed in Decree No. 449 by linking capacity remuneration to the achievement of minimum production requirements. For wind energy, the minimum capacity factor that is to be met over one year is 0.27[190].

Finally, even though the new system ensures a certain level of investment security, the readiness of the Russian authorities to radically change the 'rules of the game' for renewable energy investments could send a negative signal to potential investors[191].

1.7 Turkey

1.7.1 Promotion of renewable energies

Two key documents, the Electricity Market and Security of Supply Strategy of 2009 and the National Energy Efficiency Strategy, set a target of 30% for renewable energy production in the country (installed capacity target for wind energy: 20,000 MW) [192] by the end of 2023[193], the 100th anniversary of the Turkish Republic.

Turkey has a big potential with regard to renewable energy and especially with regard to wind energy, which is considered to be big enough to cover about 17% of the energy demand[194]. Already in the first half of 2014, an installed capacity of 466 MW has been added to the Turkish energy system, which has broken a new record[195].

1.7.2 Key legal framework

- Electricity Market Law (No. 4628/2001)
- Renewable Energy Law/YEK (No. 5346/2007)
- Law No. 6094 (2010)[196] amending the Renewable Energy Law

[190] *Boute,* Anatole, "Russia's New Capacity-based Renewable Energy Support Scheme: An analysis of Decree No. 449", International Finance Corporation (2013): http://www.ifc.org/wps/wcm/connect/f818b00042a762138b17af0dc33b630b/Energy-Suppor-Scheme-Eng.pdf?MOD=AJPERES, p. 7-8, 13

[191] IFC Russia Renewable Energy Program: Renewable Energy Policy in Russia: Waking the Green Giant (2011) http://www.ifc.org/wps/wcm/connect/bf9fff0049718eba8bcaaf849537832d/PublicationRussiaRREP-CreenGiant-2011-11.pdf?MOD=AJPERES, p. 52

[192] *Yazar,* Yusuf, "Renewable Energy in Turkey", General Directorate of Renewable Energy (2012): http://www.ewea.org/events/workshops/wp-content/uploads/2013/03/EWEA-TUREB-Workshop-27-3-2013-Yusuf-Yazar-YEGM.pdf, p. 9

[193] The World Bank: "Wind, Water and Steam – a Triple Win for Turkey's Energy Sector", 30 May 2010, http://www.worldbank.org/en/news/feature/2013/05/30/wind-water-steam-a-triple-win-for-turkey-energy-sector

[194] *Kick,* Christopher, How is 100% Renewable Energy Possible for Turkey by 2020?, Global Energy Network Institute (2011), http://www.geni.org/globalenergy/research/renewable-energy-potential-of-turkey/100-re-for-turkey-2020.pdf, p. 35

[195] Daily Sabah, "Turkey's Wind Energy Sector Booming" (23.07.2014): http://www.dailysabah.com/energy/2014/07/23/turkeys-wind-energy-sector-booming

[196] *Baris,* Kemal, *Kucukali,* Serhat, "Availability of renewable energy sources in Turkey: Current situation, potential, government policies and the EU perspective", Energy Policy 42 (2012) 377-391, p. 385

1.7.3 Competencies[197]

- Ministry of Environment and Forestry
- EMRA (Energy Market Regulatory Authority)
- DSİ (General Directorate of State Hydraulic Works)
- EİE (General Directorate of Electrical Power Resources Survey and Development Administration)
- TEİAŞ (Turkish Electricity Transmission Company)

1.7.4 The main instrument for renewable energy promotion: the feed-in tariff

With the Law No. 6094 of 2010, amending the Renewable Energy Law No. 6094, the guaranteed prices for the sale of electrical energy by renewable energy resources (RER) certificate holders were raised in Turkey. Power plants that have come into operation since 18 May 2005 or will come into operation before 31 December 2015 are eligible to receive the new feed-in tariffs for the first 10 years of their operation. Wind energy, offshore and onshore, is eligible for the tariff (§ 3 Renewable Energy Law)[198].

If the mechanical or electro-mechanical equipment of the power plant is produced locally ('Made in Turkey'[199]), a premium is added to the feed-in tariffs during the first five years of operation (Art. 6/B Renewable Energy Law).

All companies that supply electricity to consumers (as defined by Electricity Market Law No. 4628) are subject to the obligation to purchase renewable energy according to Law No. 6094. The amount of the obligation depends on the amount of energy the company has sold in the previous year[200]. The suppliers of electricity have to pay into a pool, managed by the Market Financial Settlement Centre ('PMUM' in Turkish). The amount is then distributed on a pro rata basis to the renewable energy generators[201]. The electricity generators have to make their decision to participate in the support mechanism at the end of a year for the following year and will not be able to leave or enter the mechanism until the next year[202]. The costs of the feed-in tariff are ultimately borne by all consumers via their electricity bills (§ 6 Art. 1 Renewable Energy Law)[203].

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[197] *Kölmek,* Fatih, Regulation on Renewable Energy in Turkish Electricity Market (2011): http://www.naruc.org/international/Documents/Turkey_presentation_eng.pdf, p. 7 / UNDP, "Renewable Energy Snapshot: Turkey", p. 3

[198] Legal Sources on Renewable Energy: http://www.res-legal.eu/search-by-country/turkey/single/s/res-e/t/promotion/aid/feed-in-tariff-7/lastp/207/

[199] Nenuphar (Offshore Wind Turbines), Review on Strategies and Plans, provided for the CoCoNET-project, p. 33

[200] Çakmak Avukatlık Bürosu, Law No. 6094 Amending the Renewable Energies Law: http://www.cakmak.av.tr/articles/Power/Law%20No.%206094%20Amending%20The%20Renewable%20Energy%20Law.pdf, p. 2

[201] Güner Law Office: Renewable Energy Law has been amended (2011): http://www.guner.av.tr/Renewable%20Energy%20Law%20has%20been%20amended%20%281%29.pdf, p. 2

[202] *Kölmek,* Fatih, "New Renewable Energy Supporting Mechanism in Turkey: All Consumers Going Green!", Energy Market Regulatory Authority of Turkey (EMRA): http://www.naruc.org/International/Documents/Turkey_res.pdf, p. 5

[203] Legal Sources on Renewable Energy: http://www.res-legal.eu/search-by-country/turkey/single/s/res-e/t/promotion/aid/feed-in-tariff-7/lastp/207/

Feed-in Tariff Mechanism[204]:

	Feed-in tariff	Maximum local production premium	Maximum possible tariff
Wind Power Plant	$ 7.3 cents/kWh	$ 3.7 cents/kWh	$ 11 cents/kWh

1.7.5 Weaknesses

The unit purchase prices for electricity, which is generated from renewable energy sources, are low in Turkey when compared with EU countries, the support period is comparatively short and the bonus for domestic equipment could deter international investors. Moreover, the progress towards the country's renewable energy target is hindered by limitations of existing electricity load dispatch and control systems and too few transmission links in relation to the geographically dispersed locations of energy resources[205].

1.7.6 Renewable energy and protected areas

In comparison to EU member states, Turkey has less stringent environmental regulations for the siting of wind farms. Construction may be allowed in protected areas with authorization from the relevant national or regional environmental authorities[206].

1.8 Ukraine

1.8.1 Promotion of renewable energies

The share of renewable energy in the total primary energy supply of the Ukraine has only grown from approximately 0.5% in 1990 to approximately 2% in 2010[207]. This underutilisation of Ukraine's renewable energy potential goes against its objective to decrease energy dependence and to lower greenhouse gas emissions[208]. That's why the Ukraine has adopted an Energy Strategy for the Period until 2030[209] in 2006 and has set the goal of achieving 19% of its primary energy supply from renewable energy sources by 2030.

Ukraine is also increasingly implementing EU directives, inter alia to meet the requirements of the Energy Community Treaty, which the Ukraine acceded in February 2011[210]. The State Agency for Energy Efficiency and Energy Saving (SAEE) thus developed a draft National Renewable Energy Action

[204] *Sabuncu,* Faruk, *Çolakoğlu*, Murat, „Turkey's Renewable Energy Sector from a Global Perspective", PWC 2012: http://www.pwc.com.tr/tr_TR/tr/publications/industrial/energy/assets/Renewable-report-11-April-2012.pdf, p. 11

[205] *Tsagas,* Ilias, pv magazine (26 May 2014), "Turkey secures $ 350 million renewable energy loan": http://www.pv-magazine.com/news/details/beitrag/turkey-secures-350-million-renewable-energy-loan-_100015202/#axzz3HrvqNulw

[206] European Wind Energy Association, "Eastern Winds / Emerging European wind power markets" (February 2013): http://www.ewea.org/fileadmin/files/library/publications/reports/Eastern_Winds_emerging_markets.pdf, p. 71

[207] International Energy Agency "Ukraine 2012 – Energy Policies Beyond IEA countries": http://www.iea.org/publications/freepublications/publication/Ukraine2012_free.pdf, p. 197

[208] "Attracting Investment in Renewable Energy in Ukraine", Private Sector Development Policy Handbook (November 2012), OECD, http://www.oecd.org/countries/ukraine/UkraineRenewableEnergy.pdf, p. 10

[209] Ukraine Sustainable Energy Lending Facility (USELF) „Strategic Environmental Review: Scoping Report" (January 2011) by BLACK & VEATCH, p. 23

[210] Energy Community: http://www.energy-community.org/portal/page/portal/ENC_HOME/MEMBERS/PARTIES/UKRAINE

Plan through 2020 (NREAP) with the objective to achieve an 11% renewable energy sources share in the final energy consumption of Ukraine by 2020 (26.5% from wind energy)[211].

In December 2013, the cumulative installed capacity of wind energy in Ukraine reached 371.2 MW compared with 276 MW in 2012. This corresponds to a considerable growth rate of 56%[212].
New 126.3 MW wind capacities were added in the country in 2014[213].

The installed wind capacity of Crimea, the annexation of which by Russia is not recognised by the EU, has remained unchanged at 87.7 MW. New wind project development has ceased and, in the period from April to August 2014, the operation of all wind power plants in Crimea was stopped as well. Three wind farms are located in the conflict zone in eastern Ukraine, two in the Luhansk region and one in the Donetsk region. Further development of these wind farms has been suspended. Moreover, due to the economic crisis in the country, the experts of the Ukrainian Wind Energy Association had to cut their forecast for 2015 from the previously projected 900–1,000 MW (including Crimea) to 550 MW[214].

Offshore wind was not even included in a 'Strategic Environmental Review' of the Sustainable Energy Lending Facility in 2011, mainly because of the availability of more cost-effective onshore wind options that could be developed first. Additionally, the Green Tariff for wind was considered to be insufficient to support offshore wind projects in the near-term[215].

1.8.2 Key legal framework[216]

- The Law of Ukraine "On the Electric Energy" of 16 October 1997/No. 575/97
- The Law of Ukraine "On Alternative Energy Sources" of 20 February 2003/No. 555-IV
- The Law of Ukraine "On Changes of the Law of Ukraine on Electric Energy Industry to stimulate the Use of Alternative Power Sources" of 20 November 2012/No. 5485-VI
- The Resolution of the Cabinet of Ministers of Ukraine "On the Specifics of Connection to the Electricity Grid of Power Plants generating Electricity from Alternative Energy Sources" of 19 February 2009/No. 126
- The Law of Ukraine "On amending certain Laws of Ukraine relating to the Establishment of Green Tariff" of 25 September 2008/No. 601-V
- The NERC Resolution "On the Approval of Procedure for Setting, Revising and Abolishing the Green Tariff for Economic Entities" of 22 January 2009/No. 32
- Resolution of the Cabinet of Ministers of Ukraine "On Building of Wind Farms" of 15 June 1994No. 415
- Resolution of the Cabinet of Ministers of Ukraine "On Comprehensive Programme of Wind Farm Building" of 3 February 1997/No. 137

[211] Draft National Renewable Energy Action Plan through 2020: http://saee.gov.ua/documents/NpdVE_eng.pdf, p. 1-2, 14
[212] Ukraine Sustainable Energy Lending Facility: http://www.uself.com.ua/index.php?id=28
[213] Ukrainian Wind Energy Association, "Ukraine doubles power output by wind in 2014": http://www.uwea.com.ua/news.php?news_id=219
[214] Ukrainian Wind Energy Association, "Ukraine doubles power output by wind in 2014": http://www.uwea.com.ua/news.php?news_id=219
[215] Ukraine Sustainable Energy Lending Facility (USELF) „Strategic Environmental Review: Scoping Report" (January 2011) by BLACK & VEATCH, p. 9
[216] Ukraine Sustainable Energy Lending Facility (USELF) „Strategic Environmental Review: Scoping Report" (January 2011) by BLACK & VEATCH, p. 22-25 / *Sokolov,* Evgeniy, "Study of legislative situation concerning MPAs ansd offshore development of wind farms", OBIBSS / Institute of Marine Biology of National Academy of Science of Ukraine IMB NASU, p. 4-5

- Resolution of the Cabinet of Ministers of Ukraine "On the Programme of State Support for the Development of Non-Traditional and Renewable Power Sources and Small-Scale Hydro- and Heat-Power Industries" of 31 December 1997/No. 1505

1.8.3 Competencies[217]

- The Ministry of Energy and Coal Industry of Ukraine
- State Inspectorate for the Supervision of the Electricity and Heat Consumption Regime
- The National Electric Energy Regulatory Commission (NERC)
- State Agency for Energy Efficiency and Energy Saving (SAEE)
- The National Joint Stock Company (Energy Company of Ukraine; NJSC)

1.8.4 The main instrument for renewable energy promotion: the Green Tariff

To reach the goal of the Energy Strategy, a Green Tariff for electricity generated from renewable energy sources was established by NERC in 2008. All renewable energy not sold elsewhere is to be purchased by the enterprise Energorynok at Green Tariff rates, which then sells it to energy supply companies and major industrial consumers[218].

Only those technologies are supported, which, after the Green Tariff is phased out, will be economically competitive. The prime cost of electricity generated by wind energy is expected to be constantly reduced and to become eventually lower than the prime cost of electricity generated from traditional fuels.

The Green Tariff is available to eligible projects until 2030. In order to motivate companies to generate electricity from alternative sources of energy sooner rather than later, rates are graded according to the starting date of the project[219]. Projects that are put into operation by 2014 will receive the full Green Tariff amount of 2009. For facilities put into operation or substantially modernized after 2014, 2019 and 2024, the Green Tariff is reduced by 10, 20 and 30%, respectively[220].

A further requirement for benefiting from the Green Tariff is that the material, technical and services come, to a certain extent, from the Ukraine (after 2012 at least 15% of the total value of the construction costs, after 2013 at least 30% and after 2014 at least 50%)[221]. This requirement has been considered an obstacle for the development of the wind energy market in the Ukraine[222].

[217] Ukraine Sustainable Energy Lending Facility (USELF) „Strategic Environmental Review: Scoping Report" (January 2011) by BLACK & VEATCH, p. 21-22

[218] Interfax Ukraine Business Daily (2006): http://business.highbeam.com/407712/article-1G1-149666981/interfax-ukraine-business-daily

[219] *Nechayer,* Yuriy: "Green" ("Feed-In") Tariff in Ukraine, Avellum Partners, http://www.hg.org/article.asp?id=24441

[220] Ukraine Sustainable Energy Lending Facility (USELF) „Strategic Environmental Review: Scoping Report" (January 2011) by BLACK & VEATCH, p. 6-7

[221] *Nechayer,* Yuriy: "Green" ("Feed-In") Tariff in Ukraine, Avellum Partners, http://www.hg.org/article.asp?id=24441

[222] *Onyshkiv,* Yuriy, Kyiv Post, Oct. 25, 2012 "International Investors in Wind Power in Ukraine express Concerns over Legislation": http://www.usubc.org/site/recent-news/ukraine-an-attractive-renewable-energy-market-wind-power-expands

Green Tariff rates[223]

The Green Tariff rates are determined by the NCRE individually for each company and the type of renewable energy it uses. They are calculated based on the electricity retail price for second-class consumers (consumers that receive electricity from points with voltage level of 35 or 27 kV) as of 1 January 2009, multiplied by a fixed coefficient established in Art. 17 I of the Law on the Electric Energy[224].

Fixed minimum Green Tariff rates for wind energy (per 1 KW in EUR)

For electricity-generating units with a generation capacity below 600 KW: 0.065.
For electricity-generating units with a generation capacity between 600 and 2,000 KW: 0.075.
For electricity-generating units with generation capacity above 2,000 KW: 0.113.

The average cost of electricity produced from wind farms is only EUR 0.027/kW[225]. The cost of electricity produced from OWFs, however, is probably much higher.

On 31 January 2015, the National Commission for State Energy and Public Utilities Regulation (NERCPU) decided to reduce the Green Tariff for facilities commissioned before 31 March 2013 by 10% (and for solar facilities by 20%). The reduced tariff is valid for the time of the state of emergency in the energy sector in accordance with the Resolution of the Cabinet of Ministers of Ukraine from 14 January 2015 No. 36-r "On the Adoption of Temporary Emergency Measures for the Electricity Market" and the letter of the Ministry of Energy and Coal Industry of Ukraine from 31 January 2015 No. 01/13-0216[226].

1.8.5 Weaknesses

In the Ukraine, the development of renewable sources is mostly hampered by administrative hurdles. The Ukraine has fallen to the 37th place (out of 40) of the "Renewable Energy Country Attractiveness Index" in 2014[227]. Creating a more stable business environment with clear regulations[228] and transparent and streamlined permitting procedures for renewable energy projects is thus crucial to attract foreign investment and to underpin the needed energy reforms[229].

[223] *Nechayer,* Yuriy: "Green" ("Feed-In") Tariff in Ukraine, Avellum Partners, http://www.hg.org/article.asp?id=24441
[224] "Attracting Investment in Renewable Energy in Ukraine", Private Sector Development Policy Handbook (November 2012), OECD, http://www.oecd.org/countries/ukraine/UkraineRenewableEnergy.pdf, p. 29
[225] *Trypolska,* Galyna, "Feed-in tariff in Ukraine: The only driver of renewables' industry growth?" in Energy Policy, Vol. 45, June 2012, p. 645-653
[226] Ukrainian Wind Energy Association, "National Commission for State Energy and Public Utilities Regulation": http://www.uwea.com.ua/news.php?news_id=220
[227] EY: "Renewable Energy Country Attractiveness Index", Issue 40, February 2014, http://www.ey.com/Publication/vwLUAssets/RECAI_40_-_February_2014/$FILE/EY_RECAI%2040_Feb%202014.pdf, p. 16
[228] *Sokolov,* Evgeniy, "Study of legislative situation concerning MPAs ansd offshore development of wind farms", OBIBSS / Institute of Marine Biology of National Academy of Science of Ukraine IMB NASU, p. 4
[229] International Energy Agency: "Ukraine 2012 – Energy Policies Beyond IEA Countries": https://www.iea.org/publications/freepublications/publication/UK_Summaryplus.pdf, p. 8

Chapter 2. Environmental Impact Assessments (EIAs)

2.1 The importance of assessing environmental impacts of offshore wind farms

The construction of offshore wind farms can have various negative impacts on the marine environment. The following impacts have been identified by the German Federal Maritime and Hydrographic Agency[230]:

2.1.2 During the construction phase

Visual and acoustic stress due to building activities, sound and light emissions by vehicles/vessels and machinery, temporary/permanent loss of habitats (e.g. resting, moulting and/or feeding areas) due to construction activities, pollutant emissions, turbidity of water due to sediment disturbance during foundation installation and cable laying and anchoring/propping of vessels and machinery on the seabed.

2.1.3 During the operation phase

Visual impact and annoyance due to noise emission of turbines, shadow flicker from rotor blades, vibration, additional electric and magnetic fields, land use by the required infrastructure (e.g. for foundations, cables etc.), potential discharge of pollutants (e.g. oils, greases), changed sediment distribution and dynamics, changed current patterns, potential impact on water quality, collisions of birds with wind turbines, barrier effect on fauna (e.g. barrier effect on birds during migration, or blocking of paths between different resting and/or feeding areas), disturbances (e.g. for birds, the long-term loss of resting and feeding areas) and adverse impacts of maintenance and repair operations.

2.1.4 During the decommissioning phase

Visual and acoustic annoyance due to dismantling activities, annoyance from vehicle and machinery operation during dismantling activities, loss of habitats (e.g. resting and feeding areas) due to decommissioning activities, pollutant emissions and turbidity of water due to sediment disturbance during foundation removal, cable removal and anchoring/propping of vessels and machinery on the seabed.

It is thus essential that the impacts of a concrete OWF project, especially if it is planned in or close to a protected area, are carefully assessed before its implementation.

2.2 Important points to consider in the assessment of impacts of OWFs on Marine Protected Areas (MPAs)

For the assessment of environmental impacts of OWFs, especially the intensity of the impacts, the sensitivity of the protected area, the significance of the protected area and its functions and the characteristics of the impact area have to be examined[231]. But also the following points have to be considered for a comprehensive prognosis of impacts:

[230] Federal Maritime and Hydrographic Agency, "Standard Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment (StUK4)", Hamburg and Rostock 2013: http://www.bsh.de/en/Products/Books/Standard/7003eng.pdf, p. 6

[231] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 8: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf, p. 55

2.2.1 Cumulative impacts

Impacts that are not significant individually can nevertheless collectively constitute a significant impact. Thus, apart from the impacts of the OWF on its own area, the following impacts have to be taken into account[232]:

- the cumulative impacts of all wind farms approved or proposed on adjacent sites;
- the cumulative impacts of any combination of approved and proposed wind farms at least within an SEA area; and
- the cumulative impacts of all the wind farms with other existing or proposed offshore developments.

2.2.2 Impact transfer

Impact transfer arises if impacts are caused or reinforced in a protected area as a result of measures that aim to avoid or minimize other impacts. For example, in order to reduce noise pollution, the construction of a noise barrier may be planned, which may then constitute a barrier for animals, fragmenting their habitat[233].

2.2.3 Interaction in and between protected areas

In determining the impacts on protected areas, also the interaction of its flora and fauna for example with its abiotic components has to be taken into account. Also, impacts on the interaction between various protected areas and especially on networks of protected areas have to be considered[234].

Based on this impact prognosis, the option of an OWF development that will have the least impact on protected areas can be determined. The protection objectives of the protected area can provide further guidance for this choice[235].

2.3 The development of an international legal framework for EIA and SEA

In its broadest sense, EIA "means an examination, analysis and assessment of planned activities with a view to ensuring environmentally sound and sustainable development"[236].

During the 1950s and 1960s, it became increasingly evident that many industrial activities and other projects produce undesirable environmental consequences. Thus, the need for a mechanism that ensures that the impacts of major projects and plans are assessed before their formal authorization has been acknowledged, firstly by the United States in its National Environmental Policy Act of

[232] ERM Environmental Resources Management SRL, "Environmental and Social Impact Assessment Report for: Chirnogeni Wind Farm 80 MW" (August 2011): http://www.epge.com/downloads/chirnogeni/EP_ESIA%20Report_EN_2011_10_25.pdf, p. 22

[233] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 8: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf, p. 53

[234] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 8: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf, p. 53

[235] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 8: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf, p. 56

[236] UNEP – United Nations Environmental Programme: Goals and Principles of Environmental Impact Assessment, January 16, 1987

1969[237]. Nowadays, regulations on the assessment of environmental impacts have been incorporated in many national and international regulations[238].

SEA "is a systematic process for evaluating the environmental consequences of proposed policy, plan or programme initiatives in order to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision making on par with economic and social considerations"[239].

Following the idea of sustainable development, the need for the incorporation of environmental considerations at a strategic level, thus at such an early stage of the decision-making process that the options are still open, has been recognized. In this way, social and economic process with minimal harm to the environment can be ensured[240]. Especially if the respective individual projects do not pose significant threats, environmental risks caused by accelerated growth of certain economic sectors can be identified and reduced by SEA[241].

The majority of existing international SEA regulations and guidelines were tailored for 'western-type' planning. Regional planning and environmental assessment, however, differs considerably in the countries of the former Soviet Union[242].

2.4 EIA and SEA within the European Union

The EU adopted an EIA Directive in 1985 (Directive 85/337/EEC). This initial Directive of 1985 and its three amendments have been codified by Directive 2011/92/EU of 13 December 2011. Lastly, this directive has been amended in 2014 by Directive 2014/52/EU. The EIA directive aims to guarantee that the impacts of projects like OWFs on the environment are carefully evaluated before they are carried out. The projects that are to be examined are listed in Annexes I and II of the Directive. All projects listed in Annex I are considered as having significant effects on the environment and thus mandatorily require an EIA. Wind farms are mentioned in Annex II 3. I, which means that Member States determine whether an individual project is made subject to an assessment, according to certain criteria contained in Annex III. The criteria include the location of the project, inter alia with regard to the absorption capacity of the marine environment and of protected areas (2. c) ii and v). The EIA Directive brought the European Community under a common set of obligations with regard to EIA and also provided a process to address transboundary impacts[243].

[237] National Environmental Policy Act of 1969: Sec. 102 [42 USC § 4332] (2): "all agencies of the Federal Government shall…(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on --(i) the environmental impact of the proposed action,…": http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-NEPA.pdf

[238] *Kong,* Lingjie, "Environmental Impact Assessment under the United Nation Convention on the Law of the Sea", (June 2011), Oxford University Press, http://chinesejil.oxfordjournals.org/content/10/3/651.full.pdf+html, p. 655-656

[239] *Therivel,* Riki, "Strategic Environmental Assessment in Action", Earthscan 2004, p. 7

[240] *Palekhov,* Dmytro, "Potential for Strategic Environmental Assessment (SEA) as a Regional Planning Instrument in Ukraine", Verlag Dr. Kovač, Hamburg 2014, p. 12

[241] *Palekhov,* Dmytro, "Potential for Strategic Environmental Assessment (SEA) as a Regional Planning Instrument in Ukraine", Verlag Dr. Kovač, Hamburg 2014, p. 193

[242] *Palekhov,* Dmytro, "Potential for Strategic Environmental Assessment (SEA) as a Regional Planning Instrument in Ukraine", Verlag Dr. Kovač, Hamburg 2014, p. 4

[243] *Craik,* Neil, "Principle 17: Environmental Impact Assessment" in: The Rio Declaration on Environment and Development, edited by Jorge Viñuales, Oxford University Press (2015), p. 454

The SEA Directive 2001/42/EC is in force since 2001 and applies to a wide range of public plans and programmes. An SEA is mandatory for plans and programmes which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste and water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in the EIA Directive. Also, plans and programmes which have been determined to require an assessment under the Habitats Directive are subject to SEA. For all other plans and programmes, the Member States have to carry out a screening procedure to determine whether the plans and programmes are likely to have significant environmental effects. Then, an SEA is needed. The screening procedure is based on criteria set out in Annex II of the Directive (inter alia the effects on areas or landscapes which have a recognised national, Community or international protection status).

Besides, Art. 6 III/IV of the Habitats Directive (92/43/EEC) stipulates that any plan or project that could have a significant effect on a Natura 2000 site shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. OWFs are thus not completely banned from those sites, but an especially thorough assessment is required prior to their installation.

2.5 EIA and SEA in a transboundary context

In 1987, the United Nations Environment Programme (UNEP) has formulated the "Goals and Principles of Environment Impact Assessment". The basic structure of this Goals and Principles is also used in the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention), adopted by the United Nations Economic Commission for Europe (UNECE) in 1991. However, differing from the UNEP Goals and Principles, this Convention imposes direct and detailed EIA obligations on the Parties of origin, thus the Parties under which jurisdiction a proposed activity is envisaged to take place[244]. It obligates those States to assess the environmental impact of certain activities at an early stage of planning and to notify and consult each other and the public on all major projects that might have a significant adverse environmental impact across boundaries. The Convention entered into force in 1997, Bulgaria, Romania and the Ukraine are Parties.

The Party of origin has to undertake an environmental impact assessment prior to a decision to authorize or undertake a proposed activity listed in Appendix I that is likely to cause a significant adverse transboundary impact (Art. 2 III). OWFs are not listed in Appendix I. At the initiative of any party, concerned parties shall enter into discussions on whether a proposed activity that is not listed in Appendix I is likely to cause a significant adverse transboundary impact and thus should be treated as if it were listed (Art. 2 V).

Appendix III offers guidance for the determination of the environmental significance of an impact, listing as one of the criteria the location in or close to an area of special environmental sensitivity or importance (1. (b)). And Appendix II stipulates that the "Information to be included in the environmental impact assessment documentation shall, as a minimum, contain, in accordance with Art. 4: (c) A description of the environment likely to be significantly affected by the proposed activity and its alternatives". Thus, not only the characteristics of a project, but also the characteristics of the potentially affected ecosystem can lead to considering an impact to be significant[245].

[244] *Kong,* Lingjie, "Environmental Impact Assessment under the United Nation Convention on the Law of the Sea", (June 2011), Oxford University Press, http://chinesejil.oxfordjournals.org/content/10/3/651.full.pdf+html, p. 656

[245] *Patronos,* Petros, "Implementing the Espoo Convention through subregional co-operation", www.nomophysis.org, p. 22

The Espoo Convention identifies EIA as a national procedure, giving States some autonomy in the development of transboundary EIA procedures that conform to their particular domestic requirements[246]. However, Romania stated in a report on the implementation of the Espoo Convention: "We may consider that other neighbouring countries have different legal systems if they are not member states of the European Union. Consequently, their legislation in the EIA field does not transpose the European legislation and this fact conducted to misunderstandings of the requirements of the Convention." [247] This statement reflects the difficulties that can result from different national EIA procedures.

The Espoo Convention has been supplemented by the Kyiv Protocol on Strategic Environmental Assessment (SEA), to make sure that an environmental assessment is undertaken early in the planning and decision-making process. The Protocol was adopted in 2003, inter alia by Bulgaria, Romania and Ukraine. According to Art. 2 VI of the SEA Protocol: "Strategic environmental assessment" means the evaluation of the likely environmental, including health, effects, which comprises the determination of the scope of an environmental report and its preparation, the carrying-out of public participation and consultations, and the taking into account of the environmental report and the results of the public participation and consultations in a plan or programme".

2.6 EIA within UNCLOS

UNCLOS deals with the assessment of potential effects of activities in Art. 206, which says: "when States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate reports of the results of such assessments in the manner provided in article 205."

According to Art. 1 I (4) "pollution of the marine environment" means the introduction by man, directly or indirectly, of substances or energy into the marine environment. As noise is energy, also activities that cause noise, like the construction and operation of OWFs, require an assessment[248].

However, Art. 206 sets no minimum standards for an EIA procedure, does not require States to notify or consult potentially affected States prior to the assessment and does not require an SEA. The provision alone does thus not ensure efficient EIA procedures[249].

An amendment to UNCLOS could help to overcome some of the weaknesses of the current national EIA regulations. However, since stricter obligations for the protection of the environment usually face strong opposition and since it will be difficult to find a formulation that fits the situation in all parts of

[246] *Craik,* Neil, "Principle 17: Environmental Impact Assessment" in: The Rio Declaration on Environment and Development, edited by Jorge Viñuales, Oxford University Press (2015), p. 454

[247] *Pineta,* Daniela, Questionnaire for the Report of Romania on the Implementation of the Convention on Environmental Impact Assessment in a Transboundary Context in the Period 2006-2009, information on the focal point for the Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/Review_2006_2009/Questionnaire2006_09_Romania_en.pdf, p. 28

[248] *Cohen,* Harlan, "Reflections on Environmental Impact Assessment and Marine Protected Areas", IUCN (June 2011): http://www.un.org/depts/los/biodiversityworkinggroup/4th_wg_iucn_presentation.pdf, p.3

[249] *Kong,* Lingjie, "Environmental Impact Assessment under the United Nation Convention on the Law of the Sea", (June 2011), Oxford University Press, http://chinesejil.oxfordjournals.org/content/10/3/651.full.pdf+html, p. 658-660

the world, other measures have to be taken until such an amendment receives general consent. Regional co-operation with regard to EIA remains thus crucial.

2.7 EIA and SEA within the framework of the Bucharest Convention system

Within the framework of the Convention on the Protection of the Black Sea Against Pollution (Bucharest Convention), there are several provisions that deal with EIA. Due to a lack of details on the procedure, these articles, however, cannot yet ensure a coherent EIA system within the Black Sea region and therefore cannot ensure efficient transboundary co-operation.

Art. XV of the Bucharest Convention states that "when the Contracting Parties have reasonable grounds for believing that activities under their jurisdiction or control may cause substantial pollution or significant and harmful changes to the marine environment of the Black Sea, they shall, before commencing such activities, assess their potential effects on the basis of all relevant information and monitoring data and shall communicate the results of such assessments to the Commission."

The new Protocol on the Protection of the Marine Environment of the Black Sea from Land-Based Sources and Activities (2009) contains some advanced approaches on EIA for land-based activities. Its entry into force, however, is still pending. According to Art. 3, the Protocol inter alia applies to "iii) Activities that may directly or indirectly affect the marine environment or coastal areas of the Black Sea such as works which cause physical alteration of the natural state of the coastline, including alteration or destruction of the landscape or habitats."

Art. 4 on General Obligations deals with EIA, but also requires SEA and promotes the co-operation and exchange of information between the Contracting Parties[250].

The Black Sea Biodiversity and Landscape Conservation Protocol Article 6 specifies details on the impacts that have to be considered in the EIA procedure for projects and activities that could significantly affect species and their habitats, protected areas, particularly sensitive marine areas, and landscapes (direct or indirect, immediate or long-term and cumulative impacts). To ensure a coherent application of this provision, criteria and objectives are to be regionally developed and agreed pursuant to the Convention and international experience in this matter, e.g. the Convention on Environmental Impact Assessment in a Transboundary Context (February 25, 1991, Espoo, Finland).

The Black Sea Biodiversity and Landscape Conservation Protocol sets out principles that shall constitute the basis for co-operative action. One of those principles requires states to take anticipatory actions, such as contingency planning, EIA and SEA (involving the assessment of the environmental consequences of governmental policies, programmes and plans).

In section C on sustainable human development, the Action Plan sets the goal that "by 1998, all Black Sea coastal states will adopt criteria for environmental impact assessments and environmental audits that will be compulsory for all public and private projects. The coastal states will co-operate to

[250] Art. 4 II: The Contracting Parties shall, in particular:
…c) Ensure that activities, which are likely to cause a significant adverse impact on the marine environment and coastal areas, are made subject to environmental impact assessment and a prior authorization by competent national authorities;
d) Ensure that environmental considerations, including health aspects, are thoroughly taken into account in the development of relevant plans and programmes, inter alia by means of strategic environmental assessment;
e) Promote co-operation between and among the Contracting Parties in environmental impact assessment procedures related to activities under their jurisdiction or control, which are likely to have a significant adverse effect on the marine environment of other States, on the basis of exchange of information;…

harmonize these criteria by 1999 and where possible, to introduce strategic environmental assessments".

A new Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea was adopted in 2009, and contains in point 1.5.4 the principle of anticipatory action as well. The application of that principle requires the carrying out of EIAs and strategic impact assessments (involving the assessment of the environmental and social consequences of governmental policies, programmes and plans).

2.8 Conclusion

The countries bordering the Black Sea share a common environment, natural resources and similar problems. And, since the impacts of human activities do not respect national borders, negative impacts on the environment often result from activities implemented in neighbouring countries. Consequently, the improvement of the EIA system in only one country will not guarantee a minimization of environmental impacts even in this country.[251]. A significant reduction of negative impacts on the marine environment can thus only be ensured by a comprehensive regional approach.

A central problem in the Black Sea region is that procedures for EIA considerably vary among countries. There are notably big differences, both conceptual and methodological, between the traditional OVOS/expertise system, on which the EIA system in the Ukraine, Russia and Georgia is still based, and the EIA procedure in the countries of the European Union. Moreover, some countries of the region are members of the EU and some are Parties to the Espoo and/or the Aarhus Conventions and only those countries have to comply with the respective obligations.

Thus, a more detailed regulation in the Bucharest Convention, in a Protocol or at least in a voluntary guideline would be helpful to streamline procedures and to facilitate co-operation between all the countries of the Black Sea region. For example, under the OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic, Guidance on Environmental Considerations for Offshore Wind Farm Development was prepared in 2008[252].

With regard to transboundary EIA procedures, the Black Sea Commission has already requested the support of the UNECE Secretariat to the Espoo Convention in the elaboration of a first draft. A respective document was prepared by the Espoo Secretariat and further adjusted by the Advisory Group on Integrated Coastal Zone Management (AG ICZM) and the Advisory Group on Control of Pollution from Land Based Sources (AG LBS) under the Commission on the Protection of the Black Sea Against Pollution, but has never been adopted by the Black Sea Commission[253].

Another way to implement provisions on transboundary EIA is to conclude specific regional agreements[254]. Inter alia, Art. 8 of the Espoo Convention on Bilateral and Multilateral Co-operation

[251] Caucasus Environmental NGO Network CENN, "Assessment of Effectiveness of Environmental Impact Assessment (EIA) System in Georgia", 2004: http://www.unece.org/fileadmin/DAM/env/eia/documents/CENN_EIA_reviews/Georgia_English_FINAL_20.09.pdf, p. 9

[252] OSPAR Guidance on Environmental Considerations for Offshore Wind Farm Development (Reference number 2008-3)

[253] *Makarenko,* Iryna, "Challenges of Environmental Impact Assessment (EIA) Procedure for Transboundary Projects in the Black Sea Basin" Turkish Journal of Fisheries and Aquatic Sciences 12: 445-452 (2012), p. 447

[254] *Makarenko,* Iryna, "Challenges of Environmental Impact Assessment (EIA) Procedure for Transboundary Projects in the Black Sea Basin" Turkish Journal of Fisheries and Aquatic Sciences 12: 445-452 (2012), p. 447

states that "the Parties may continue existing or enter into new bilateral or multilateral agreements or other arrangements in order to implement their obligations under this Convention".

The Guidance on the Practical Application of the Espoo Convention, adopted in June 2004, notes that there are many issues that can be agreed upon in advance by Parties that expect to have transboundary assessments on a regular basis[255]. And, the Recommendations for Strengthening Subregional Co-operation promote the implementation of mechanisms for co-operation also between Parties and non-Parties[256].

2.9 Bulgaria

2.9.1 Development of environmental assessment

Before 1989, inadequate administrative capacities and the prioritization of productivity in the planned-economy system resulted in a lack of enforcement of environmental standards[257]. The Environmental Protection Act (EPA) of 1991 has firstly provided a legal basis for environmental assessments in Bulgaria. The EPA of 1991 covered both, projects as well as plans and programmes, such as national and regional development programmes or territorial and urban development plans. During the following 10 years, considerable experience was gained in conducting EIA procedures, including in the environmental assessment of spatial plans. However, the institutions of Bulgaria still had to leave their authoritarian past behind, a process that also made the implementation of efficient EIA procedures difficult[258].

Since 2002, the EIA and SEA legislation and practice was strongly influenced by the EU approximation process[259]. In 2005, Bulgaria was among the first countries in Europe that introduced a mandatory environmental assessment of plans and programmes as required by Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment. The first environmental assessments of planning documents according to that amendment were carried out for regional development plans. In 2009 and 2010, annual reports were published on the implementation of SEAs of regional development plans[260]. And, in August 2014, the online EIA register on the Ministry of Environment and Waters (MoEW) website contained already 789 registered EIA procedures[261].

[255] United Nations Economic Commission, Bilateral & Multilateral Agreements: http://www.unece.org/env/eia/resources/agreements.html

[256] Second Meeting of the Parties to the Convention on Environmental Impact Assessment in a Transboundary Context, Decision II/8 "Strengthening Subregional Co-operation", Sofia 2001

[257] *Carius,* Alexander, *Krüger,* Christine, *von Homeyer,* Ingmar, "Environmental Policy and Law in Bulgaria – Towards EU Accession", Berlin: Ecologic, 2001, p. 27

[258] *Almer,* Heather L., *Koontz,* Thomas M., "Public hearings for EIA in post-communist Bulgaria: do they work?", in Environmental Impact Assessment Review 24 (2004), p. 478

[259] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 9

[260] Speech by Mrs. Nikolina Nikolova, Deputy Minister of Regional Development and Public Works, Bulgaria, "How can an integrated approach to maritime areas and EU financial opportunities create opportunities in coastal areas?" Brussels, 14 October: http://ec.europa.eu/maritimeaffairs/events/2011/10/documents/statement-nikolina-nikolova_en.pdf, p. 3

[261] Ministry of Environment and Water: Public register for EIA procedures, http://www.moew.government.bg/?show=top&cid=238

2.9.2 Competencies

Competencies at the national and regional level

The competent authority at national level is the Department for EIA and SEA within the MoEW. At regional level, the competent authorities are the departments for EIA and SEA within the 16 regional inspectorates of environment and waters (RIEWs). The 16 RIEWs are thus often responsible for more than one of the 28 provinces.

These competences are stipulated in Art. 93 II and III of the Environmental Protection Act (EPA) and in Art. 6 of the EIA Ordinance for EIA and in Art. 84 I EPA and Art. 4 SEA Ordinance for SEA.

Expert councils

At national level, the Supreme Environmental Expert Council to the MoEW and, at regional level, Environmental Expert Councils to the Regional Inspectorates of Environment and Waters (RIEWs) provide support in the EIA process[262]. For each SEA and EIA case, an Environmental Expert Council is created. The Environmental Expert Council includes members of relevant authorities, as well as external experts, scientists and environmental NGOs[263], usually about 12-15 people[264].

Consultancies

The environmental assessment is commissioned by the developer to a team of experts (83 I EPA). Until the end of 2009, the experts had to be officially registered with the MoEW. Since the latest update of the EPA in 2010, experts that conduct the environmental assessment are required to hold a master's degree and to have relevant experience (Art. 83 II EPA). The competent authority may also recommend to include experts with particular qualifications "in accordance with the specificity of the investment proposal or with its location" (Art. 83 III EPA).

2.9.3 Legal framework for EIA

Bulgaria has transposed the EIA Directive (85/337/EEC) into national law[265]. The framework for EIA was laid down by the new Environmental Protection Act (EPA) of September 2002 (promulgated in the State Gazette (SG) No. 91/2002), in Chapter VI *Ecological Assessment (SEA) and Environmental Impact Assessment (EIA)*, as well as in the Annexes I and II. The regulation of the Council of Ministers that was passed in 2003 contains details on the EIA procedure (EIA Ordinance, SG No.25/2003 / Art. 101 EPA).

[262] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 9
[263] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 6
[264] Coastlearn: Public Participation, http://www.coastlearn.org/pp/ppandeia.html
[265] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 10

Stages of the EIA process according to the Environmental Protection Act[266] and the EIA Ordinance[267]

Stage	Requirements
Investment proposal preparation	The developer prepares the terms of reference for the investment proposal and/or the feasibility studies.
Notification to competent authorities	At the earliest stage, the initiator of the development proposal has to inform the competent authorities (MoEW and/or respective RIEW) and the concerned public in writing about the project (Art. 95 I EPA / Art. 4 EIA Ordinance).
Screening	Environmental impact assessment is to be mandatorily conducted of any development proposals for construction, activities and technologies listed in Annex 1 to the EPA (Art. 92 I EPA). The need of an environmental impact assessment is to be determined for each individual case for development proposals listed in Annex 2 (Art. 93 I 1 EPA) or which might affect protected areas (Art. 31 VIII of the Biological Diversity Act). Installations for the harnessing of wind power for energy production (wind farms) are listed in 3. (i) of Annex 2. The criteria for this decision include the characteristics of the project, the sensitivity of the environment and the reproductive capacity of the ecosystem, especially of protected and coastal areas (Art. 93 IV EPA). The competent authorities, the Minister of Environment and Water or the RIEW Director, decide on the requirement of an EIA within 1 month (Art. 93 V EPA / Art. 5-8 EIA Ordinance).
Scoping	The proponent also has prepare the terms of reference (ToR) for the scope and content of the EIA (Art. 95 II EPA). He has to consult the competent authorities, other specialized institutions and the public (Art. 95 II EPA). The developer is also obliged to present all relevant information for the consultation (Art. 9-10 EIA Ordinance). The law does not specify the form of the consultation and the timeframe.
EIA report preparation	The developer assigns the preparation of the EIA report to independent experts. The EIA report must be prepared according to the ToR and in line with the relevant legal requirements (Art. 11-12 EIA Ordinance). It must contain inter alia a summary of the project, possible alternatives (including the "zero alternative"), a description of the environment and of potential significant impacts, a description of the planned mitigation measures, the comments of the public and of the competent authorities, a non-technical summary of the information and information on difficulties of information gathering (Art. 96 I EPA)[268]. The EIA is paid for by the proponent (Art. 96 II EPA).

[266] Environmental Protection Act (2011): http://www3.moew.government.bg/files/file/PNOOP/Acts_in_English/Environmental_Protection_Act.pdf

[267] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 11-13

[268] JASPERS (Joint Assistance to Support Projects in European Regions), "Sectoral EIA Guidelines – Waste Water Treatment Plants and Waste Water Collection Systems" (2013), p. 7-8

Review of the quality of the EIA report	The competent authority then evaluates the EIA report within 30 days after its submission and verifies if it conforms to the result of the consultations and to environmental regulations (Art. 96 VI EPA). The competent authority uses a grading system for the evaluation (A / full information to E / extremely insufficient information). If the quality is sufficient, the competent authority starts the public hearing procedure. The competent authority also forwards the report to the developer to be promptly amended according to its comments (Art. 13-15 EIA Ordinance).
Public discussion	After receiving a favourable decision on the report, the proponent has to organize a public discussion on the EIA statement together with local authorities. The proponent proposes a venue, a date and a time for the discussion, which is to be confirmed by the competent authority. At least 30 days before the discussion, it has to be announced by mass media and access to relevant information has to be provided. All interested natural and legal persons can participate in the discussion, including representatives of the competent authority, local authorities, the territorial executive administration, public organisations, NGOs and citizens (Art. 97 EPA and Art. 16-17 EIA Ordinance). All information and opinions received in the discussion must be accessible for the public concerned.
EIA decision	45 days after the public discussion, the Minister of Environment and Waters or the director of the respective RIEW issues the EIA decision, based on the decision of the Environmental Expert Council (Art. 18-21 EIA Ordinance) and taking into account the public opinion. The decision can include conditions and deadlines for compliance. The decision is valid for 5 years.
Announcement / appeal of the decision	The competent authority submits the EIA decision to the developer and publishes it within 7 days through the media or other suitable means (Art. 99 EPA). The public concerned and the developer may appeal the decision within 14 days after the announcement.
Post-decision monitoring	The competent authority monitors if the action plan is implemented and if the developer complies with the requirements of the EIA decision during all stages of the project development, including design, construction and operation (Art. 22 EIA Ordinance). The competent authority shall prohibit or stop the activities or the implementation of projects for which the environmental impact assessment is negative, for which the mandatory assessment has not been made, or which have not been equipped with the required equipment (Art. 23 EIA Ordinance)

2.9.4 Possible conditions of an EIA decision

In the decision regarding the Environmental Impact Assessment report, conditions can be set out. For example, in the decision on the construction of a wind farm on the land of Suvorovo municipality, in the region of Varna, conditions were set out for the different stages of the project. For example, at the design stage, a Plan for a one-year monitoring of ornithofauna had to be elaborated. Not later than one month after putting the wind farm into operation, a year-long ornithology monitoring of

the site had to be carried out, to check the risk for the birds. If case of a proven high death rate among birds according to criteria specified by MoEW, the hazardous wind generators were to be put out of operation and dismantled[269].

2.9.5 Control[270]

Control on the implementation of the EIA requirements and the plan for mitigation measures takes place during the project design, during construction and during operation. Controlling authorities include the RIEWs, the Water Basin Directorates, the National Park Directorates, environmental inspectors of the municipalities and NGOs.

2.9.6 Weaknesses of the procedure[271]

Municipalities authorize projects without conducting any EIA, SEA or AA or they disregard the results of the assessments. Examples include the 'Riverside village' in Irakli on the Black Sea coast, the 'Golden Pearl resort' in Strandzha Nature Park, a ski lift and a road in Rila National Park and new ski runs in the Bansko ski zone in the Pirin National Park. Sometimes authorities have even tried to legalize already started construction by carrying out an EIA procedure afterwards[272].

No assessment of cumulative impacts takes place. Instead of a full assessment of projects in the same location, projects are divided. Thus, several separate screening decisions are taken for small projects, stating that no full EIA is required ('salami slicing'). Because of that, the Black Sea region is already largely destroyed and fragmented by constructions.

According to the information provided by the RIEWs, in the period between January 2003 and December 2009, at least 2,840 wind turbines were approved by the RIEWs in Bulgaria. Out of these 2,840 approved wind turbines, 2,365 turbines (or 83%) appear to have been approved without an EIA. Already during the screening phase of the EIA process it was decided that an EIA was not necessary. Most of the turbines approved without an EIA are described as either single turbines or small scale projects (up to seven turbines). However, many of them are located on adjacent land plots and have been constructed almost at the same time[273].

- The EIA/SEA reports are often incomplete and of low quality. Since the project developer pays for the assessment, reports are also often not objective. Some NGOs have therefore even suggested that assessments should be paid for by a special agency that is financed with

[269] Ministry of Environment and Water, "Resolution Regarding Environmental Impact Assessment Report / EIAR / No. BA 2 – 3/115/2007": http://eolica-bg.com/docs/suvorovo/RESOLUTION_Regarding_EIA_report_vENG.pdf

[270] EIA/EA Department Preventive Activities Directorate Ministry of Environment and Water, "SEA and EIA Legal Framework in Bulgaria", http://www.unece.org/fileadmin/DAM/env/eia/documents/Events/SzentendreDec10/1.2SEA_EIA_Legal_Framework_Bulgaria.pdf, p. 16 / *Grigorova,* Vania, "Practical experience with applying EIA in the EU", Ministry of Environment and Water of Bulgaria, Vienna 2008: https://www.energy-community.org/portal/page/portal/ENC_HOME/DOCS/36235/4Bulgary.pdf, p. 20

[271] For the Nature Coalition (Bulgaria), Papp Tamás (Milvus Group - Romania) and Sallai R. Benedek (Environmental and Nature Conservation Association - Hungary): Experiences on the implementation of Natura 2000 in Central Europe / Cases in Bulgaria, Romania and Hungary, http://www.ceeweb.org/wp-content/uploads/2012/01/N2000_experiences.pdf, p. 5-7

[272] WWF, "Problems with the protection of Natura 2000 sites in Bulgaria", August 2008 update: http://d2ouvy59p0dg6k.cloudfront.net/downloads/n2k_problems_in_bg__wwf_update_september.pdf, p. 1

[273] Ministry of Economy, Energy and Tourism, "SER Environmental Report: Strategic Environmental Review of the Development of Wind Power in Bulgaria", prepared by ENVIRON Iberia, pm&E, POVVIK AD (June 2010): http://bgwea.org.server14.host.bg/Materials/Final_SER_Report_ENG.pdf, p. 9

taxes imposed on the investors. Then, there would be no direct link between the expert and the investor anymore[274].

- The opinion of NGOs, scientific experts and the other stakeholders is not sufficiently taken into account.
- The access to information on environmental issues is sometimes deliberately limited and access to administrative or judicial procedures to challenge illegal authorization acts is not always guaranteed.
- The level of sanctions for non-compliance with EIA requirements appears to be too low to deter companies from implementing their projects[275].
- There is a lack of political will to turn the EIA 'paper laws' into effectively applied regulations[276].

2.9.7 Transboundary EIA[277]

The Convention on environmental impact assessment in a transboundary context (EIA Convention), adopted in Espoo, Finland on 25 February 1991, has been ratified in Bulgaria by a law promulgated in SG. 86/1999. Transboundary EIA is regulated in Art. 98 EPA and in the EIA Ordinance. The competent authority for the EIA procedure in a transboundary context is the Ministry of Environment and Water (Art. 24 of the EIA Ordinance). A successful transboundary EIA has, for example, been conducted before the opening of the Vidin-Calafat Bridge over the Danube River in 2013 in Romania and Bulgaria[278].

2.9.8 Appropriate assessment

The EU Habitats Directive (92/43/EEC) has been transposed into Bulgarian national law[279]. Thus, according to Art. 31 of the Biological Diversity Act of 2002 (SG No.77/2002), an integrated 'appropriate assessment' (AA; as required by Art. 6 III of the Habitats Directive) has to be carried out within the EIA and SEA procedure when protected areas and/or species are potentially affected[280].

Art. 31 I Biological Diversity Act

(1) Any plans, programmes, projects and building development proposals that are not directly related or necessary for the management of the special areas of conservation and that, either individually or in interaction with other plans, programmes, projects or building development proposals, are likely

[274] *Hristova,* Nevena, "The progress of Bulgaria in the implementation of the Natura 2000 network and the main stumbling blocks upon its way", Master Thesis, Tilburg University (May 2012), p. 38
[275] *Hristova,* Nevena, "The progress of Bulgaria in the implementation of the Natura 2000 network and the main stumbling blocks upon its way", Master Thesis, Tilburg University (May 2012), p. 46
[276] *Hristova,* Nevena, "The progress of Bulgaria in the implementation of the Natura 2000 network and the main stumbling blocks upon its way", Master Thesis, Tilburg University (May 2012), p. 50
[277] *Kazandzhieva,* Bistra; "Review of the Environmental Impact Assessment Procedure in Bulgaria", Regional Inspectorate of Environment and Waters / faolex.fao.org
[278] *Ruza,* Sandra, "Transboundary EIA case studies related to water resources under the Espoo Convention", UNECE, Mekong Environment and Climate Symposium 2010: http://ns1.mrcmekong.org/download/Presentations/EP-Symposium/Theme03_06-Case-study-TbEI-on-WR-Espoo-Convention%28Sandra%29.pdf, p. 8, UNECE, „Bridge over the Danube River between Vidin (Bulgaria) and Calafat (Romania)", http://www.unece.org/env/eia/pubs/factsheet1_r.html
[279] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 10
[280] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 4

to have a significant negative impact on the special areas of conservation, shall be assessed as to the compatibility thereof with the protection purposes of the relevant special area of conservation.

If a plan, programme, project, or building development adversely affects the object of protection within the special area of conservation to a considerable extent, it is only admissible if there is an overriding public interest and in the absence of an alternative solution (Art. 33 I Biological Diversity Act). Then, the project proponent shall take compensatory measures necessary to ensure that the coherence of the National Ecological Network is protected, before the implementation of the relevant plan, programme, project, or building development proposal (Art. 34 I of the Biological Diversity Act). These measures shall consist in conservation or restoration of the same natural habitat type or habitat of the same plant or animal species:
1. in another place within the deteriorated special area of conservation;
2. in an extension of the same, or an extension of another special area of conservation;
3. in a new special area of conservation (Art. 34 II Biological Diversity Act).

The details of the AA procedure are regulated in the *Ordinance for the conditions and order for performance of appropriate assessment of plans, programmes, projects and investment proposals with the subject and aims of preservation of the protection sites* (AA Ordinance), promulgated in SG 73/2007.

2.9.9 SEA

Legal framework

Bulgaria has transposed the SEA Directive (2001/42/EC) into national law in July 2004. The main SEA provisions are included in the EPA. The Ordinance on the Conditions and Procedure of the Ecological Assessment of Plans and Programmes (SEA Ordinance, SG 57/2004) specifies the SEA procedure.

The Protocol on Strategic Environmental Assessment to the Convention on environmental impact assessment in a transboundary context, adopted in Kiev on 21 May 2003 has been ratified in Bulgaria by a law promulgated in SG, 97/2006. Transboundary SEA is regulated in Chapter VII (Art. 32 to 35) of the SEA Ordinance. The competent body for the SEA procedure in a transboundary context is the Minister of Environment and Waters (Art. 33 of the SEA Ordinance).

Plans and programmes subject to SEA

"Environmental assessment shall be conducted of plans or programmes which are in a process of preparation and/or approval by central or local executive authorities, bodies of local self-government and the National Assembly" (Art. 81 I 1 EPA).

"An environmental assessment shall be mandatory for any plans and programmes in the areas of agriculture, forestry, fisheries, transport, energy, waste management, water resources management, and industry, including extraction of subsurface resources, electronic communications, tourism, spatial planning and land use, where the said plans and programmes set the framework for future development of any development proposals listed in Annexes 1 and 2 hereto" (Art. 85 I EPA).

The SEA Ordinance[281] contains two lists of plans and programmes in its Annexes:

[281] Regulation No. 139 on the conditions, procedure and methods for environmental assessment of plans and programs: http://faolex.fao.org/

Annex 1: plans or programmes subject to mandatory SEA, for example
5. Power Generation industry
5.1. Power Generation Act
Strategy for the Power Generation in the Republic of Bulgaria
5.2. Power Generation Efficiency Act
National Long-term Programmes for Power Generation Efficiency

Annex 2: plans or programmes subject to a screening procedure, for example
4. Power Generation
4.1. Power Generation Act
National Long-term and Short-term Programmes for Stimulation of the Utilization of Replenishing Energy Sources
or
9.4. Protected Territories Act and Biological Diversity Act
Plans for Management of Protected Zones and Protected Territories (excluding the reservoirs)

The National Plan for Renewable Energy Sources is subject to an SEA and an AA procedure in Bulgaria[282].

2.10 Georgia

2.10.1 Key legal framework[283]

- Law on State Environmental Assessment (15 October 1996)
- Law on Environmental Permit (15 October 1996)
- Law on Environmental Protection (10 December 1996)
- Law No. 1426-bc on Issuing Licenses and Permits for Entrepreneurial Activity (14 May 2002)
- Regulation on Environmental Impact Assessment, approved by Order No. 59 (16 May 2002)
- Regulation on Rules to Carry out State Ecological Expertise, approved by Order No. 85 (14 August 2003) of the Minister of Environment
- Law on Licenses and Permits (24 June 2005)
- Governmental Regulation No. 154 on the Procedures and Conditions for the Issuance of Licenses for Activities that have an Environmental Impact (1 September 2005)
- Order No. 193 of the Minister of Environmental Protection and Natural Resources regarding the Procedure for Carrying out State Environmental Audits (6 March 2007)
- Law on Permits for the Impact on Environment (1 January 2008)
- Law on Ecological Expertise (1 January 2008)
- Regulation on the Environmental Impact Council (2011)
- Order No. 38 of the Minister of Environment and Natural Resources Protection on the Regulations of the Commission for Amending the Terms of the Ecological Expertise Conclusions (15 June 2011)
- Order No. 28 of the Minister of Environment and Natural Resources Protection on the Approval of the Rules of the Ecological Expertise (14 May 2013)

[282] EIA/EA Department Preventive Activities Directorate Ministry of Environment and Water, "SEA and EIA Legal Framework in Bulgaria", http://www.unece.org/fileadmin/DAM/env/eia/documents/Events/SzentendreDec10/1.2SEA_EIA_Legal_Framework_Bulgaria.pdf, p. 9

[283] *Suknidze,* Nino, *Tsivtsivadze,* Neli: How to obtain an environmental impact permit, DLA Piper (2013), http://www.investingeorgia.org/uploads/How_to_Obtain_an_Environmental_Impact_Permit_-Guide.pdf, p. 6

- Order No. 31 of the Minister of Environment and Natural Resources Protection on the Approval of the Regulations for Environmental Impact Assessment (15 May 2013)
- Order No. 38 of the Minister of Environment and Natural Resources Protection on the Approval of Procedures for the Special Council for Environmental Impact (3 June 2013)

2.10.2 Competencies

The Ministry of Environment and Natural Resources Protection

The competences of the Ministry are determined by a Governmental Decree of 26 April 2013. The Ministry is the executive authority that regulates activities related to the protection of the environment and to natural resources. It is responsible for implementing decisions on environmental policy and management and has issued several regulations aimed at the implementation of EIA[284].

Service of Licenses and Permits

Within the Ministry, the Service of Licenses and Permits co-ordinates the permitting process[285]. Project initiators have to submit their application to that Service, the Service provides consultation, discusses the review with other departments of the Ministry, co-ordinates the procedure of the Ecological Expertise and decides, in agreement with the EIA council of experts, on the granting of the permit.

2.10.3 Development of EIA legislation in Georgia[286]

During the Soviet era, Soviet standards and procedures had been in force in Georgia, also for EIA. After gaining independence in 1991, the issue of an EIA did not, for a long time, play a major role in Georgia. Investments were lacking due to the instable political situation. Only in the second half of the 90s, Georgia gradually started modernizing its EIA system. The system is, however, still similar to the OVOS/State Environmental Review system[287].

The adoption of the new constitution on 24 August 1995, by setting basic regulations with regard to environmental protection, marks the beginning of the current EIA system. This was followed by the adoption of a set of laws and regulations concerning EIA[288]. On 10 December 1996, the law on Environmental Protection has been adopted[289].

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[284] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 13

[285] Ministry of Environment and Natural Resources, Service of Permits: http://moe.gov.ge/index.php?lang_id=ENG&sec_id=13

[286] *Kolhoff,* Arend J., *Driessen,* Peter P. J., *Runhaar,* Hens A.C.: An analysis framework for characterizing and explaining development of EIA legislation in developing countries – Illustrated for Georgia, Ghana and Yemen, Environmental Impact Assessment Review, Elsevier (2012), p. 7-8

[287] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 5

[288] Caucasus Environmental NGO Network CENN, "Assessment of Effectiveness of Environmental Impact Assessment (EIA) System in Georgia", 2004: http://www.unece.org/fileadmin/DAM/env/eia/documents/CENN_EIA_reviews/Georgia_English_FINAL_20.09.pdf, p. 11

[289] http://faolex.fao.org/

Art. 35 I of that law states that an environmental permit is necessary for activities on the territory of Georgia, in order to take into consideration ecological, social and economic interests of the public and the state and to protect human health, natural surroundings, material assets and cultural heritage. In order to prevent or mitigate the adverse effects on the environment, it is necessary to carry out an EIA before an environmental permit is issued for activities of the categories specified by law (Art. 37 I).

The first Georgian EIA legislation adopted after 1996 was drafted with the assistance of the European Union to be progressively aligned with international standards. It was considered as rather ambitious[290]. However, after the Rose Revolution in 2003, Georgia aimed at increasing investment and eliminating corruption. The current law on Environmental Impact Permits came into force during this period, in 2005[291]. As EIA was considered to be an obstacle to investment, the amendments substantially weakened the legislation on EIA[292]. The main permit procedure for new activities is now the construction permit procedure, in which the environmental impact assessment is now integrated[293]. Georgia furthermore reduced the activities subject to EIA, shortened the timeframes for permits from 90 to 20 days and transferred the responsibility for public participation from the EIA authority to the project initiator[294].

2.10.4 Environmental considerations in the permitting procedure

The law on Licenses and Permits (adopted on 24 June 2005) defines the categories of licenses and permits, and sets up the rules for their issuance, amendment and termination. Among the types of permits, there are environmental impact permits and various types of construction permits. An EIA and an Ecological Expertise is required for all activities listed in Art. 4 of the law on Environmental Impact Permits of 2007.

The law on Licenses and Permits provides for a general exemption from its application for projects of ministries, the local government of Tbilisi, and certain agencies under the authority of the ministries or the Tbilisi local government. For this significant category of projects, there is a lack of clarity and legal certainty with regard to the requirement of an EIA[295].

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[290] Netherlands Commission for Environmental Assessment / Georgia: http://www.eia.nl/en/countries/eu/georgia/eia

[291] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 7

[292] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 7

[293] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 7

[294] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 7

[295] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 7

To obtain a permit, up to four steps have to be carried out[296]:

1. EIA

According to Art. 3 d) of the law on Environmental Impact Permits, EIA is "a procedure which aims to examine the planned activity for the purpose of protecting various components of environment, population, landscape and cultural heritage. EIA studies, identifies and describes any direct and indirect impact of the activity on human health and safety, vegetation and wildlife, soil, air, water, climate, landscape, ecosystems and historical monuments, or the combination of these factors, including the impact of these factors on cultural values (cultural heritage) and socio-economic factors"[297]. The project initiator organizes, conducts and pays for the EIA.

a. Projects subject to EIA[298]

There is no screening procedure in Georgia and initial consultation with the decision-making body is not obligatory and usually concerns only formal organizational issues. There is a list defining the activities requiring EIA instead, that corresponds to the list in Art. 4 I of the law on Environmental Impact Permits with the activities subject to Ecological Expertise. Art. 4 of the Regulation on EIA of 2013 refers to that list[299].

The list of activities requiring an EIA is incomplete and inflexible. Certain activities that potentially cause significant human health and environmental problems are omitted, while activities with only insignificant impacts have to undergo the full EIA process[300]. Wind farms, for example, are not listed in the law. Any activity not covered by Art. 4 I shall, however, meet the requirements of the environmental technical regulations (Art. 5).

According to Art. 11 I of the Law on Environmental Impact Permits and a Ministry Regulation (Order No. 38 of the Minister of Environment and Natural Resources Protection on the Approval of Procedures for the Special Council for Environmental Impact of 3 June 2013), an activity may be exempted from EIA if "common state interests require that the activity be undertaken and the decision has been made in a timely manner." The regulation does not specify what activities may fall under this category, so that any activity can potentially be exempted. For example, on 29 April 2009, the Peri Ltd submitted an EIA report to the Ministry of Environmental Protection for the Khadori-2 hydropower project on the river Alazani, in order to obtain an environmental impact permit. The request has been rejected because of the poor quality of the report. But instead of improving the EIA report, the company demanded the project to be exempted from EIA requirements, stating that any postponement of the project would violate its agreements with foreign investors. The exemption has

[296] *Suknidze,* Nino, *Tsivtsivadze,* Neli: How to obtain an environmental impact permit, DLA Piper (2013), http://www.investingeorgia.org/uploads/How_to_Obtain_an_Environmental_Impact_Permit_-Guide.pdf,
[297] The Law of Georgia on Environmental Impact Permit: http://w3.cenn.org/CENN_Projects/BfW_mining/Documents/Laws%20in%20English/7.%20The%20Law%20of%20Georgia%20on%20Environmental%20Impact%20Permit%20_Eng.pdf
[298] *Gugushvili,* Tamar: Participation in Environmental Decision Making – Case Study of Georgia, http://envirocenter.yale.edu/envdem/docs/OTHERS/GUGUSHVILI/Gugushvili_Final%20Paper.doc, p. 3
[299] Order #31 of the Minister of Environment and Natural Resources of Georgia made on May 15 2013, Tbilisi, on Approval of the Regulation on Environmental Impact Assessment: http://w3.cenn.org/CENN_Projects/BfW_mining/Documents/Laws%20in%20English/8.%20Approval%20of%20the%20Regulation%20on%20Environmental%20Impact%20Assessment_Eng.pdf
[300] National Environmental Action Plan of Georgia 2011-2015, Full Draft 1 (December 23, 2010): http://moe.gov.ge/index.php?lang_id=ENG&sec_id=69&info_id=1386, p. 103

been granted by the government[301]. To prevent a circumvention of EIA requirements, international standards for EIA, reflected by the provisions of the Espoo Convention and the EU Directive, do not admit such an exemption from EIA requirements[302].

b. Scope of the EIA[303]

The required scope of the EIA report is determined in a reference list that is similar for all development proposals. There is also no special provision for especially sensitive areas[304].

According to Art. 5 II of the Regulation on EIA of 2013, the EIA is a set of interrelated stages. The first stage consists of collecting information on the current state of the environment and on potential changes through the activity, also on protected areas (Art. 5 II a) a.c), at the second stage, possible impacts of implementation alternatives are identified, at the third stage the quantity and nature of impacts are identified, at the fourth stage, the risks of possible accidents is assessed, at the fifth stage, possibilities to minimize or compensate impacts and then effects of the project implementation on public health and living conditions are identified and, at the seventh stage, methods of impact control and monitoring are developed.

Apart from that list, scoping lies mainly within the responsibility of the project proponent. This lack of a reference list tailored to the project affects the quality of the EIA report, which may create obstacles at a later surveillance and enforcement stage[305].

c. EIA report

The proponent is obliged to produce an EIA Report according to the requirements of the Regulations on EIA promulgated by the Ministry of Environment and Natural Resources Protection. Art. 6 II of the Regulation on EIA of 2013 contains a list determining the required content of the EIA report, including cumulative impacts, an evaluation of alternative locations and technologies and the reinstatement of the environment after the termination of the activity.

The proponent usually hires a consulting firm for the preparation of the report. Currently, there are no formal criteria that a private company must meet to provide such EIA services[306].

The proponent submits a preliminary EIA report to the Ministry of Environment and Natural Resources Protection within one week after the announcement of the public hearing. This is the first point at which the Ministry is formally involved in the EIA process.

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[301] *Gujaraidze,* Kety, "Energy Projects and Corruption in Georgia", Green Alternative (2013): http://greenalt.org/wp-content/uploads/2013/12/Energy_Projects_and_Corruption_in_Georgia.pdf, p. 22, 23

[302] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 8, 25

[303] *Gugushvili,* Tamar: Participation in Environmental Decision Making – Case Study of Georgia, http://envirocenter.yale.edu/envdem/docs/OTHERS/GUGUSHVILI/Gugushvili_Final%20Paper.doc, p. 4

[304] Netherlands Commission for Environmental Assessment / Georgia: http://www.eia.nl/en/countries/eu/georgia/eia

[305] National Environmental Action Plan of Georgia 2011-2015, Full Draft 1 (December 23, 2010): http://moe.gov.ge/index.php?lang_id=ENG&sec_id=69&info_id=1386, p. 103

[306] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 33-34

d. Public hearing[307]

Since there is no official scoping procedure, public participation in Georgia takes only place at a very late stage of the EIA[308]. The organization of the public hearing lies within the responsibility of the project proponent.

For the purpose of organizing the public hearing, the project proponent has to publish the information about the planned activity in national print periodicals as well as in print periodicals (if any) of the administrative territory of the respective self-governance unit (Art. 6 II and III of the law on Environmental Impact Permits). The information has to contain the objectives, the title and the location of the planned activity, an address where further information can be obtained, a deadline for the submission of comments and the time and venue for the public hearing[309].

The public hearing must be held between 50 and 60 days after the publication of the announcement. It has to take place in the administrative centre of the region, where all interested individuals can participate. The Ministry has the possibility to attend the public hearing as a participant and to make comments on the EIA documentation.

The proponent must prepare a report of the public participation procedure (called a 'protocol') within five days after its conclusion, which includes all comments made at the hearing as well as all comments submitted in writing (Art. 7 of the law on Environmental Impact Permits). The protocol also has to describe how the comments were taken into account to proof that the proponent has duly considered all comments before preparing the final EIA report[310].

There is no requirement for stakeholder engagement or a formal grievance mechanism in Georgia that would ensure that consultation, disclosure and community engagement continues throughout the construction and operation of the project[311].

2. Application

After finalizing the assessment, the project proponent submits a written application to the Ministry, together with the final EIA report, the public hearing protocol and other documents, defined in Art. 8 of the law on Environmental Impact Permits. The proponent seeking an environmental impact permit has one year to submit the full application[312].

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[307] *Gugushvili,* Tamar: Participation in Environmental Decision Making – Case Study of Georgia, http://envirocenter.yale.edu/envdem/docs/OTHERS/GUGUSHVILI/Gugushvili_Final%20Paper.doc, p. 3

[308] *Gugushvili,* Tamar: Participation in Environmental Decision Making – Case Study of Georgia, http://envirocenter.yale.edu/envdem/docs/OTHERS/GUGUSHVILI/Gugushvili_Final%20Paper.doc, p. 3

[309] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 16

[310] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 16

[311] Gamma Consulting, "Project on Construction and Operation of HPP Cascades on the river Chorokhi – Environmental and Social Impact Assessment Report", 2011: http://www.eksim.com.tr/basin_odasi/Reports/CED2011.pdf, p. 26

[312] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 17

3. Ecological expertise

The formal review process is called ecological expertise in Georgia.

If a construction permit is required, the construction permitting authority (the Ministry of Economy and Sustainable Development or the local self-governance unit) interrupts the construction permitting procedure while the environmental impact permit procedure proceeds, if it considers a project subject to ecological expertise. As a consequence of the new 'one-window' approach in Georgia, the project proponent does not deal directly with the environmental authority and the involvement of the environmental authorities is completely dependent on the decision of the construction authority[313].

If no construction permit is required for an activity, it is nevertheless necessary to conduct an ecological expertise for all activities contained in the list of Art. 4 I of the law on Environmental Impact Permits.

The Law on Ecological Expertise (adopted on 14 December 2007) regulates that the ecological expertise is a scientific review of the EIA, conducted by a council of experts set up by the Ministry of Environment and Natural Resources Protection for each project within 10–15 days. The council of experts includes staff members of the Ministry and its agencies, and may also include independent experts (Art. 10-17). The council of experts reviews the EIA documentation, including the contents of the EIA report, a site map, the volume and types of emissions, and the outcome of the public participation procedure for compliance with legal requirements[314]. The council formulates a conclusion, which is decisive for the decision on the issuance of the permit (Art. 17).

The council of experts may impose conditions for the implementation of the project[315]. These conditions can concern the methods of environmental control and monitoring, prevention and mitigation plans for identified or expected negative impacts on the environment as well as an environmental strategy and management plan[316]. The permit holder is obliged to comply with the conclusions.

4. Issuance of the permit

The environmental impact permit and the construction permit can be issued only on the basis of positive conclusions of the Ecological Expertise (Art. 9 III of the law on Environmental Impact Permits). The Minister confirms the Ecological Expertise, which is then forwarded to the construction permitting authorities if a construction permit is required.

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[313] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 15, 24

[314] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 17

[315] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 17

[316] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 18

The issuance of the Minister's order on the basis of the Ecological Expertise must be made within five days following the submission of the conclusions. The decision is published within 10 days following its issuance. The permit is issued within 20 days from the submission of the application (Art. 9 I of the law on Environmental Impact Permits)[317]. Approximately 60–70 EIA-based permits are processed annually[318].

5. Mechanisms for public participation in decision making within the administrative proceeding[319]

The provisions of the above laws dealing with permitting are subject to the General Administrative Code (adopted on 25 June 1999, updated 2001). According to the General Administrative Code, interested parties, thus parties directly affected by a decision, can apply in writing to the Ministry and require the participation in the administrative proceeding (Art. 75 e)). The general public does not fall under the term 'interested party'. Environmental NGOs, however, are usually viewed as 'interested parties', and can therefore participate in the administrative proceeding.

6 Post-project analysis

The final EIA report must include monitoring plans and plans for the prevention and mitigation of expected environmental impacts, according to the Regulation on Environmental Impact Assessment. The project developer has to implement the monitoring plan (self-monitoring) at all stages of the project lifetime[320].

The responsibility for enforcing the conditions of the permit and inspecting the facilities lies within the Ministry's Department of Environmental Supervision, which controls compliance by means of a 'selective examination' (Art. 19 of the law on Environmental Impact Permits). Inspection thus almost never occurs except in response to public complaints and the post-project analysis is almost wholly dependent on the proponent[321].

2.10.7 Drafts

After the elections in late 2012, a new government has been formed in Georgia. Subsequently, the alignment with international standards with regard to environmental protection, also with a view to the envisaged EU accession, has been prioritized. The Ministry of Environment and Natural Resources

[317] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 17

[318] Netherlands Commission for Environmental Assessment / Georgia: http://www.eia.nl/en/countries/eu/georgia/eia

[319] *Gugushvili,* Tamar: Participation in Environmental Decision Making – Case Study of Georgia, http://envirocenter.yale.edu/envdem/docs/OTHERS/GUGUSHVILI/Gugushvili_Final%20Paper.doc, p. 4-5

[320] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 18

[321] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 24

Protection has notably established a schedule of legislative drafting that included a law amending the law on Environmental Impact Permits in the second half of 2013[322].

2.10.8 Harmonization with EU legislation

On 29 November 2013, at a summit in Vilnius, Georgia initiated the Association Agreement with the EU, which was signed in June 2014 and ratified by the Georgian Parliament on 18 July 2014. According to Art. 302 I a) of the agreement, co-operation between Georgia and the EU shall cover EIA and SEA and, according to Art. 306 in conjunction with Annex XXVI on Environment, within 3–4 years after the entry into force of the agreement most of the provisions of the EIA and the SEA Directive shall apply.

2.10.9 Compliance with the Espoo Convention

Georgia is not yet a party to the Espoo Convention, and there are no bilateral arrangements with its neighboring countries concerning EIA in a transboundary context. However, Georgia has a political goal of future membership in the European Union, which is party to the Espoo Convention.

Currently, Georgian legislation does not comply with the Espoo Convention. Detailed provisions concerning EIA in a transboundary context or an official platform or mechanism for transboundary co-operation are still lacking in Georgia. Moreover, the list of activities subject to EIA under Georgian legislation does not conform with the list of activities in Appendix I to the Convention, wind farms are notably not included. And, in the EIA process, too much responsibility is entrusted to the project initiator. Often, transboundary issues are therefore omitted in practice[323].

In March 2014, Georgia informed the Espoo Convention secretariat on its plans to develop a new law on EIA that will also incorporate provisions on SEA, in accordance with the Espoo Convention and the Protocol on SEA[324].

2.10.10 SEA

Before the reform, the requirement to carry out an EIA for plans and programmes, stipulated by the former law on Environmental Permits, could have been considered as an attempt to introduce SEA.

However, EIA for plans and programmes (thus SEA) has not become common practice in Georgia. The first EIA for a plan was started when the Kolkheti National Park Management Plan was submitted to

[322] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 9

[323] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 12

[324] *Skrylnikov,* Dmytro, "Report on analysis of the existing elements and gaps in the national legislation of Georgia related to implementation of the Protocol on Strategic Environmental Assessment to the Espoo Convention", EaP GREEN Programme (19 August 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/Start-up_workshop_Tbilisi_25-08-2014/Report_Georgia_1st_draft_consultations_20082014.pdf, p. 5

the Ministry of Environment. However, since there was no procedure established for such an activity, the EIA process was rather confusing[325].

Since the reform, the development and approval of plans and programmes are not subject to EIA/OVOS, ecological expertise or environmental permitting anymore. There are several laws determining the rights and responsibilities of the government and municipalities in the field of planning, but Georgia has no particular legislation on SEA and there is no legislation to regulate the planning procedures in general[326].

In 2003, Georgia has signed the Kyiv Protocol on SEA, which, however, has not been ratified yet.

2.10.11 Recommendations[327]

- To introduce an obligatory screening procedure that, in case the legislator did not consider a potentially harmful activity, allows for the assessment of an activity, even if it is not on the list.
- To introduce different kinds of permits depending on the scope of a project or activity, with more simple permits for medium and small projects[328].
- To provide for a scoping procedure that takes into account the characteristics of each project and provides for the consultation of all interested stakeholders to reduce the likelihood of later conflicts. Only one meeting with stakeholders does not guarantee a sound involvement of all stakeholders in the decision-making process[329].
- To improve the quality of the information on the project for the public hearing and simplify the procedure for participation in the decision-making process. Currently, public participation is not effective and the level of public participation is too low[330].
- To improve the quality of EIA reports that currently is rather poor.
- To clearly define roles and responsibilities of the various authorities in the EIA process[331] and strengthen the role of the Service of Licenses and Permits.

[325] Caucasus Environmental NGO Network CENN, "Assessment of Effectiveness of Environmental Impact Assessment (EIA) System in Georgia", 2004: http://www.unece.org/fileadmin/DAM/env/eia/documents/CENN_EIA_reviews/Georgia_English_FINAL_20.09.pdf, p. 51

[326] *Skrylnikov,* Dmytro, "Report on analysis of the existing elements and gaps in the national legislation of Georgia related to implementation of the Protocol on Strategic Environmental Assessment to the Espoo Convention", EaP GREEN Programme (19 August 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/Start-up_workshop_Tbilisi_25-08-2014/Report_Georgia_1st_draft_consultations_20082014.pdf, p. 18

[327] *Gugushvili,* Tamar: Participation in Environmental Decision Making – Case Study of Georgia, http://envirocenter.yale.edu/envdem/docs/OTHERS/GUGUSHVILI/Gugushvili_Final%20Paper.doc, p. 4, 9, 10

[328] National Environmental Action Plan of Georgia 2011-2015, Full Draft 1 (December 23, 2010): http://moe.gov.ge/index.php?lang_id=ENG&sec_id=69&info_id=1386, p. 103

[329] *Vakhtang,* Gvakharia, "Recommendations regarding legislative amendments", Gamma Consulting, Tbilisi (4 November 2013): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/Roundtable_Tbilisi_Nov13/4_SRF_Gamma_Consulting_Nov.pdf, p. 9

[330] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 19-20

[331] *Skrylnikov,* Dmytro, "Report on analysis of the existing elements and gaps in the national legislation of Georgia related to implementation of the Protocol on Strategic Environmental Assessment to the Espoo Convention", EaP GREEN Programme (19 August 2014):

- To raise public awareness. Raising awareness and common understanding of the benefits of the EIA and SEA at national and local levels and in different sectors, including the benefits of public participation and the consultation of relevant authorities improves the quality and acceptance of the EIA process[332].
- To provide for an effective post-project analysis. Authorities currently have low personnel capacities, few resources, little practical experience and there is a low level of interagency co-operation[333].
- To separate the environmental impact permit procedure from the construction permit procedure. The ecological examination should be carried out prior to the commencement of the construction permit procedure and independently[334].
- To sign and ratify the Espoo Convention on Environmental Impact Assessment in a Transboundary Context and ratify the Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (signed by Georgia on 21 May 2003).
- To harmonize the environmental impact permitting procedure with environmental and social policies of international financing institutions, so that consultant companies don't have to prepare two sets of documents for projects that involve international financing[335].

2.11 Romania

2.11.1 Development of the EIA procedure[336]

In 1973, the first law on environmental protection was adopted in Romania, but it did not yet contain specific provisions on EIA. But even though EIA had not been formally introduced during the communist regime (before 1989), it was not completely unknown. Environmental legislation required that the preservation of the environment was taken into account during the development of a

http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/Start-up_workshop_Tbilisi_25-08-2014/Report_Georgia_1st_draft_consultations_20082014.pdf, p. 4

[332] *Skrylnikov,* Dmytro, "Report on analysis of the existing elements and gaps in the national legislation of Georgia related to implementation of the Protocol on Strategic Environmental Assessment to the Espoo Convention", EaP GREEN Programme (19 August 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/Start-up_workshop_Tbilisi_25-08-2014/Report_Georgia_1st_draft_consultations_20082014.pdf, p. 4

[333] *Stec,* Stephen, "Review of legislation on environmental impact assessment of Georgia with regard to implementation of the Espoo Convention", EaP GREEN Programme (19 January 2014): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/2_results_comp_1/Espoo_Review_Georgia_FINAL_January2014.pdf, p. 19-20

[334] *Vakhtang,* Gvakharia, "Recommendations regarding legislative amendments", Gamma Consulting, Tbilisi (4 November 2013): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/Roundtable_Tbilisi_Nov13/4_SRF_Gamma_Consulting_Nov.pdf, p. 7

[335] *Vakhtang,* Gvakharia, "Recommendations regarding legislative amendments", Gamma Consulting, Tbilisi (4 November 2013): http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/Roundtable_Tbilisi_Nov13/4_SRF_Gamma_Consulting_Nov.pdf, p. 7

[336] "Effectiveness of environmental impact assessment in Romania and simple means to improve it", report prepared in 2011 within the UNDP-GEF Project MP5-PIMS 3069, "Strengthening the Capacity to Integrate Environment and Natural Resources Management for Global Environmental Benefits (CB2)": http://undp.ro/libraries/projects/Effectivness_of_EIA_in_Romania_01.pdf, p. 8-10

project. Furthermore, studies were carried out to measure the impact of pollution etc. These studies, however, were mainly theoretical and have rarely influenced development or investment activities. The research results were often considered confidential, thus not accessible for the public[337].

In the course of the EU accession process, the Emergency Government Ordinance (GEO) No. 91/2002 was adopted, amended the Environmental Protection Act (Law No. 137/1995) and introduced the EU principles with regard to EIA Table 2.1). The EIA Directive was transposed into national law by Government Decision (GD) No. 918/2002, amended lastly by GD No. 445/2009[338]. This Decision transposed the Annexes I, II, III, and IV to the EIA Directive into national law[339].

Table 2.1 List of the main regulations on EIA[340]

Guideline / Legislation	No. / Date	Purpose / Scope
Environmental Protection Law	Government Emergency Ordinance (GEO) No. 226/2013 and No. 164/2008 amending GEO No. 195/2005 on environmental protection, approved by Law No. 265/2006	Sets up the permitting requirements (including EIA).
EIA Procedure and Environmental Agreements	Order No. 135/2010	Regulates application for and issuing of the Environmental Agreement.
Framework regarding the EIA procedure for certain public and private projects	GD No. 445/2009	Transposes the EU Directive 85/337/EEC and respectively 97/11/EC for EIA, as well as Directive 2003/35/EC related to public participation and respectively Directives 85/337/EEC and 96/61/EC.
Guidelines for EIA	Order No. 863/2002	Guidelines for the EIA screening, scoping and review, based on EU Directives.
EIA procedure in a transboundary context	Order No. 864/2002	Establishes the EIA procedures in a transboundary context, and the list of projects included in Annex No. 1 of the Convention on transboundary EIA ratified by Law No. 22/2001

[337] Environmental Impact Assessment – Romania – Country Profile: http://eia.unu.edu/wiki/index.php/Romania.html
[338] Lege [5]: http://lege5.ro/Gratuit/gezdknrugy/hotararea-nr-445-2009-privind-evaluarea-impactului-anumitor-proiecte-publice-si-private-asupra-mediului
[339] *Dutu*, M., *Nistor,* M., *Manoleli,* D., *Sarbu,* C. : "The Situation in Romania Regarding Legislation on Environmental Impact Assessment", www.nomosphysis.org.gr, p. 1-2
[340] ERM Environmental Resources Management SRL, "Environmental and Social Impact Assessment Report for: Chirnogeni Wind Farm 80 MW" (August 2011): http://www.epge.com/downloads/chirnogeni/EP_ESIA%20Report_EN_2011_10_25.pdf, p. 25

The SEA Directive was transposed in 2004 by GD No. 1076/2004, which, however, did not include provisions on appropriate assessment, as required by the Habitats Directive. The requirements for appropriate assessment were only included in Ordinance No. 57/2007 on the regime of natural protected areas, the conservation of natural habitats, flora and fauna.

In 2009, the provisions for appropriate assessment for projects were included in GD No. 445/2009 on environmental impact assessment (Art. 20), but the procedure has not been specified at that time. In 2010, Order No. 19/2010 on the methodological guidelines for the appropriate assessment has been adopted. Also in 2010, Order No. 135 has been adopted on the methodology for the application of EIA for public and private projects, which integrates the specific requirements of the appropriate assessment in the procedure.

2.11.2 Competencies[341]

The central and territorial authorities for environmental protection are responsible for the issuance of the environmental agreement and for the EIA. The 'environmental agreement' is a pre-condition for the development consent.

The relevant authorities are (depending on the location and size of the project):

- At the local level: 42 Environmental Protection Agencies (EPAs), thus one for each county (called 'judet'), for projects that are located on the territory of the county;
- At the regional level: 8 Regional Environmental Protection Agencies (REPAs) for projects located on two or more counties;
- At the central level: the National Environmental Protection Agency (NEPA) for big projects or projects located on two or more regions, SEAs for which competences are delegated from the Ministry of Environment and Forests (MEF), and SEAs that fall under the Integrated Pollution Prevention and Control (IPPC) Directive, the Large Combustion Plants (LCP) Directive, the Seveso Directive and other pollution control legislation;
- The MEF for special projects like nuclear power plants, quarries and opencast mining, when the surface of the site exceeds 25 ha – here, the environmental agreement is approved by a Governmental Decision;
- The Administration of the Danube Delta Biosphere Reserve[342].

Participation of these authorities is ensured within the Technical Review Committee (TRC/ CAT in Romanian: colectivului de analiză tehnică), organized at central level through an order of the Minister of the Environment and at local level for each county and the municipality of Bucharest through an order signed by the prefect and the president of the county council (cf. Order of the Minister of Environment and Forests No. 405/2010 on setting-up the technical review committee (TRC) at central level). The TRC is responsible for carrying out the screening, scoping and review for big projects.

[341] *Dutu*, M., *Nistor,* M., *Manoleli,* D., *Sarbu,* C. : "The Situation in Romania Regarding Legislation on Environmental Impact Assessment", www.nomosphysis.org.gr, p. 4 / Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 19-20

[342] *Pineta,* Daniela, Questionnaire for the Report of Romania on the Implementation of the Convention on Environmental Impact Assessment in a Transboundary Context in the Period 2006-2009, information on the focal point for the Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/Review_2006_2009/Questionnaire2006_09_Romania_en.pdf, p. 3, 6

The latest legislation updates require the approval of EIA/SEA reports by the custodians of protected areas (Natura 2000 sites). These organizations are involved already at the screening stage, thus when the decision is made on the necessity of an appropriate assessment. The custodians of the sites participate in the field visits and are part of the TRC.

2.11.3 The EIA procedure for projects[343]

Romanian legislation requires that the EIA is accomplished at the stage in which the assessment of the project feasibility takes place. A 'project' can be construction works, installations, the dismantling of constructions and other activities that can affect the natural surroundings and the landscape, including the extraction of mineral resources.

The aim of the EIA is to identify, describe and assess the direct and indirect effects of a project (or major modification of a project) on:

a) human beings, fauna and flora;
b) soil, water, air, climate and the landscape;
c) material assets and the cultural heritage; and on
d) the interaction between those factors (Art. 5 II of the GD No. 445/2009).

The activities are classified in:

- activities with no significant impact on the environment, for example, housekeeping activities.
- activities with limited impact, for which, after the screening stage, a decision has been taken that an EIA is not necessary. For those activities, an environmental permit is issued.
- activities with significant impact on the environment, for which an EIA is necessary, either because they are included in the corresponding list (Annex 1 of GD No. 445/2009) or because the screening has shown possible significant impacts (Annex 2).

OWFs are listed in Annex 2 (point 3 i) of the GD No. 445/2009, and are thus subject to screening.

2.11.4 Stages of the EIA procedure[344]

The general framework for the EIA procedure is regulated by GD No. 445/2009, as amended by GD No. 17/2012. The EIA methodology is specified by Order No. 135/2010, which integrates provisions on an appropriate assessment and public consultation. The procedure takes on average 240 days (recorded data until 2011).

The EIA procedure starts with the application for an environmental agreement, necessary for all projects listed in Annex 1 and Annex 2 of GD No. 445/2009.

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[343] *Dutu*, M., *Nistor,* M., *Manoleli,* D., *Sarbu,* C. : "The Situation in Romania Regarding Legislation on Environmental Impact Assessment", www.nomosphysis.org.gr, p. 2-3

[344] "Effectiveness of environmental impact assessment in Romania and simple means to improve it", report prepared in 2011 within the UNDP-GEF Project MP5-PIMS 3069, "Strengthening the Capacity to Integrate Environment and Natural Resources Management for Global Environmental Benefits (CB2)": http://undp.ro/libraries/projects/Effectivness_of_EIA_in_Romania_01.pdf, p. 19-20, 31 / *Pineta,* Daniela, Questionnaire for the Report of Romania on the Implementation of the Convention on Environmental Impact Assessment in a Transboundary Context in the Period 2006-2009, information on the focal point for the Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/Review_2006_2009/Questionnaire2006_09_Romania_en.pdf, p. 4 / *Stan,* Mari-Isabella, European and International Legal Regulation of Environmental Impact Assessment in the Coastal Area of Romania: http://www.upm.ro/facultati_departamente/ea/RePEc/curentul_juridic/rcj13/recjurid132_8F.pdf, p. 116

The EIA is carried out in the following stages (Art. 6 of GD No. 445/2009):

a. The screening stage

At this stage, the developer has to provide preliminary information on the project (a checklist can be found in table 1 of Annex 1 of MO No. 863/2002[345]) for projects listed in Annex 2 of GD No. 445/2009. The competent authority examines the project case by case according to the criteria listed in Annex 3 of GD No. 445/2009. Those criteria include inter alia potential impacts on protected areas (point 2.3). Annex 1 of MO No. 863/2002 (tables 2 and 3) contains comprehensive checklists, asking for example if the project affects the environment temporarily or permanently.

The competent authority for environmental protection takes one of the following decisions, depending on the result of the examination:

- to conduct the EIA and the appropriate assessment;
- to conduct the EIA without the appropriate assessment;
- to conduct just the appropriate assessment;
- or to continue the procedure required for issuing the environmental permit (without an EIA and without an appropriate assessment).

The environmental authorities have the possibility to re-examine the decision based on the comments of the public.

For projects listed in Annex 1, the EIA procedure is mandatory.

b. The scoping stage and the finalization of the EIA report

At this stage, the competent authority for environmental protection determines the environmental issues that are to be analyzed in the EIA report. Together with the TRC, a checklist is elaborated, using the guidelines provided for by MO No. 863/2002. Also, the proposals of the public are taken into account.

Three main questions have to be answered (Annex 2, Part 1, point 2 of MO No. 863/2002):

1. What are the potential impacts of the project on the environment?
2. What are the most important impacts that have to be studied in depth in the EIA report?
3. What project alternatives (including 'zero alternative'/point 2.1) have to be considered in the report?

The EIA report is written by independent certified specialists, which can be natural or legal persons, is to be based on the checklist and has to take the provisions for the content of the EIA report in Annex 4 of GD No. 445/2009 into account.

c. The review of the report: acceptance or reasoned rejection

A consultation period of at least 20 days is to be provided for, followed by a public debate. The competent authority for environmental protection takes the recommendations of the TRC and the public into consideration for its analysis. MO No. 863/2002 specifies the most

[345] Lege [5]: http://lege5.ro/Gratuit/hezteoju/ordinul-nr-863-2002-privind-aprobarea-ghidurilor-metodologice-aplicabile-etapelor-procedurii-cadru-de-evaluare-a-impactului-asupra-mediului

important points to consider. For example, the report has to be clear, complete, logically structured and objective. A detailed checklist can be found in Annex 3[346].

If the report has to be modified because of the comments of the public, the EIA procedure has to be repeated. In case of a positive decision, the Environmental Agreement (in Romanian: Accord de mediu) is issued, which is valid for 10 years[347]. The decision can be challenged in court.

2.11.6 Recommended content of the EIA report (MO No. 863/2002)[348]

a) description of the project (location, technical, size);
b) description of the measures planned to avoid, to reduce and to remedy negative effects on the environment;
c) data necessary to identify and assess the main effects of the project on the environment, including comprehensive information on biodiversity (cf. Annex 2, Part II a, point 4.5 of MO No. 863/2002);
d) presentation of reasonable project alternatives and reasons for the choice of the project, based on the provisions stipulated in Part I of Annex 2 – Methodological guideline for the scoping stage (MO No. 863/2002). The presentation of reasonable alternatives must correspond to the requirements of the Habitats Directive, if the project potentially affects a Natura 2000 site;
e) summary of the information.

MO No. 863/2002 (Annex 2) contains several checklists to ensure all relevant information is included in the report. For example, point 4.5 on biodiversity requires information on the types of biotopes in the relevant area, on fauna and flora, on endangered species (included in the red book 'Cartea Roşie'), on migration routes as well as an analysis of possible impacts and measures to mitigate those impacts[349].

2.11.5 Assessment of the quality of EIA reports[350]

- The state of biodiversity is often not sufficiently assessed. Sometimes, the EIA report just says: "there is no available data regarding environmental quality on the project site".
- There is no unitary method for the assessment of the impacts of a project on the environment.
- The different stages of the assessment (description, impact assessment, determination of mitigation measures and monitoring) are often not logically connected.
- The opinions of the public are not sufficiently reflected in the reports.
- The experts that prepare the report do not always seem to be objective, but to realize an assessment convenient for the project developer that pays for the assessment.

[346] ORDIN Nr. 863 din 26 septembrie 2002 privind aprobarea ghidurilor metodologice aplicabile etapelor procedurii-cadru de evaluare a impactului asupra mediului: http://www.mmediu.ro/legislatie/acte_normative/legislatie_orizontala/ORD_863_2002.pdf
[347] Tuca Zbarcea Asociatii Legal Bulletin December 2008, p. 3
[348] *Dutu*, M., *Nistor,* M., *Manoleli,* D., *Sarbu,* C. : "The Situation in Romania Regarding Legislation on Environmental Impact Assessment", www.nomosphysis.org.gr, p. 4-5
[349] ORDIN Nr. 863 din 26 septembrie 2002 privind aprobarea ghidurilor metodologice aplicabile etapelor procedurii-cadru de evaluare a impactului asupra mediului: http://www.mmediu.ro/legislatie/acte_normative/legislatie_orizontala/ORD_863_2002.pdf
[350] "Effectiveness of environmental impact assessment in Romania and simple means to improve it", report prepared in 2011 within the UNDP-GEF Project MP5-PIMS 3069, "Strengthening the Capacity to Integrate Environment and Natural Resources Management for Global Environmental Benefits (CB2)": http://undp.ro/libraries/projects/Effectivness_of_EIA_in_Romania_01.pdf, p. 43-46

- There is a high degree of similarity between the reports.
- There is no provision that prevents 'salami-slicing'. Projects are thus split to diminish the impact of each part on the environment, to avoid the consideration of cumulative impacts and to not have to analyze alternatives for the entire project[351].
- Associated works are not defined in the regulations and are thus not taken account of, for example the impacts of the transport of building materials[352].

2.11.6 Public participation[353]

The interested public is involved in all three stages of the EIA procedure. The interested public is the public affected or potentially affected by the project, and also non-governmental organizations for the protection of the environment. This may be especially relevant to ensure the protection of the marine environment if OWFs are established (Art. 2 e) of GD No. 445/2009). The following decisions are taken for an appropriate participation of the public (cf. Art. 16 of GD No. 445/2009): identification of the public concerned, determination of the location where the information is to be made available, specification of the ways of informing the public (e.g. posters, local press, exhibition plans or models), determination of the method for consulting the public, such as written notifications or public debates, determination of the timeframe.

The public information and participation in the EIA procedure takes place by:
a) public announcement of the developer's application for a private/public project;
b) public announcement of the screening decision;
c) public hearing;
d) public announcement of the decision to issue or not the environmental agreement.

All these announcements also include information on the time and place for obtaining relevant information and the time limit for comments. The new MO No. 135/2010 provides in its annexes the format for such public announcements. The public has five days to comment the screening decision, 20 days to study the EIA Report and five days to comment the decision to issue the environmental permit, which has not been considered an appropriate timeframe[354].

Regarding the public announcements, developers often publish it only in low circulation newspapers, fearing that public opinion might be against their project. There is also no practice of informing directly interested NGOs. And, the webpages of the environmental authorities have been considered as not very helpful[355]. Moreover, there is no public participation in the scoping decision and the public is not invited to the TRC meetings and is sometimes not even allowed as observer[356].

[351] Justice and Environment 2012, "The EIA in Selected Member States – Report and Case Studies": http://www.justiceandenvironment.org/_files/file/2012/EIA%20comprehensive%20report%202012_1.pdf, p. 5
[352] Justice and Environment 2012, "The EIA in Selected Member States – Report and Case Studies": http://www.justiceandenvironment.org/_files/file/2012/EIA%20comprehensive%20report%202012_1.pdf, p. 4
[353] *Dutu*, M., *Nistor,* M., *Manoleli,* D., *Sarbu,* C. : "The Situation in Romania Regarding Legislation on Environmental Impact Assessment", www.nomosphysis.org.gr, p. 6 / *Pineta,* Daniela, Questionnaire for the Report of Romania on the Implementation of the Convention on Environmental Impact Assessment in a Transboundary Context in the Period 2006-2009, information on the focal point for the Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/Review_2006_2009/Questionnaire2006_09_Romania_en.pdf, p. 3
[354] Justice and Environment 2012, "The EIA in Selected Member States – Report and Case Studies": http://www.justiceandenvironment.org/_files/file/2012/EIA%20comprehensive%20report%202012_1.pdf, p. 6
[355] Justice and Environment 2012, "The EIA in Selected Member States – Report and Case Studies": http://www.justiceandenvironment.org/_files/file/2012/EIA%20comprehensive%20report%202012_1.pdf, p. 6
[356] Justice and Environment 2012, "The EIA in Selected Member States – Report and Case Studies": http://www.justiceandenvironment.org/_files/file/2012/EIA%20comprehensive%20report%202012_1.pdf, p. 6

However, some project developers, especially when international financing is involved, aim to comply not only with national legislation, but also with international best practice, by establishing a comprehensive stakeholder engagement plan, ongoing throughout the lifetime of a project, as well as a grievance mechanism[357].

2.11.7 Transboundary EIA

The Espoo Convention on Environmental Impact Assessment in a Transboundary Context became part of the Romanian environmental legislation by law No. 22/2001. To ensure the full implementation of the Convention, the Ministry of Environment and Water Management (now called Ministry of Environment and Forests) has issued MO No. 864/2002 for the approval of the impact assessment procedure and public participation to the decision making process for projects with transboundary impacts[358]. The GD No. 445/2009 contains in Art. 17 provisions for a transboundary EIA, thereby transposing Art. 7 of the EIA Directive.

2.11.8 SEA procedure for plans and programmes[359]

The SEA procedure is regulated by GD No. 1076/2004[360] concerning the procedure for the environmental assessment of plans and programmes. In Romania, wind farm projects should comply with the local zoning plan. Amendments to that zoning plan generally require developers to produce an SEA[361].

The procedural stages are the following (Art. 3 II of GD No. 1076/2004):

a) The screening stage;
b) The stage of completion of the plan or programme and of the elaboration of the environmental report;
c) The stage of analyzing the quality of the report and decision taking.

According to Art. 26, the implementation of the plan is subject to monitoring.

Concerning SEA in a transboundary context, Romania has ratified the SEA Protocol to the Espoo Convention by Law No. 349/2009. The respective procedure is regulated in Section 5a of GD No. 1076/2004.

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[357] For example: Stakeholder Engagement Plan / Topolog-Luminita-Mesteru wind farm Romania (Land Power / September 2013): http://www.landpower.ro/en/proiecte/doc/SEP%202013%20EN.pdf

[358] *Pineta,* Daniela, Questionnaire for the Report of Romania on the Implementation of the Convention on Environmental Impact Assessment in a Transboundary Context in the Period 2006-2009, information on the focal point for the Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/Review_2006_2009/Questionnaire2006_09_Romania_en.pdf, p. 2

[359] "Effectiveness of environmental impact assessment in Romania and simple means to improve it", report prepared in 2011 within the UNDP-GEF Project MP5-PIMS 3069, "Strengthening the Capacity to Integrate Environment and Natural Resources Management for Global Environmental Benefits (CB2)": http://undp.ro/libraries/projects/Effectivness_of_EIA_in_Romania_01.pdf, p. 19, 28

[360] Lege [5]: http://lege5.ro/Gratuit/guydenjz/hotararea-nr-1076-2004-privind-stabilirea-procedurii-de-realizare-a-evaluarii-de-mediu-pentru-planuri-si-programe

[361] European Wind Energy Association, "Eastern Winds / Emerging European wind power markets" (February 2013): http://www.ewea.org/fileadmin/files/library/publications/reports/Eastern_Winds_emerging_markets.pdf, p. 65

2.11.9 Appropriate assessment for plans/programmes and projects[362]

Within the MEF, the Biodiversity Directorate is responsible for the appropriate assessment[363].

Art. 28 II of Order No. 57/2007 states that "any plan or project not directly connected with or necessary to the management of the site of community importance but likely to have a significant effect thereon, either individually or in combination with other plans or projects, is subject to an appropriate assessment of its implications for the natural protected sites of community importance in view of the site's conservation objectives".

Ministerial Order No. 135/2010 on EIA stipulates that the appropriate assessment is an integral part of the EIA (Art. 1 III). According to Order No. 19/2010, the procedural steps for the appropriate assessment are:

a) Screening stage (point 2.1 of Order No. 19/2010)
b) Appropriate assessment study stage (point 2.2)
c) Alternative solutions stage (point 2.3)
d) Compensatory measures stage (point 2.4)

Checklists for all three stages are contained in the Annexes of Order No. 19/2010. The procedure ends with the issuance of a Natura 2000 permit, if the procedure is not conducted in parallel with the SEA or EIA procedure.

The two procedures, EIA and appropriate assessment, are considered to be well integrated, the chapter on biodiversity forms an integral part of the EIA report. However, since greater responsibilities have been assigned to local authorities following the administrative restructuring in 2010, there seems to be a lack of staff of the biodiversity departments that are qualified to deal with the increasing number of appropriate assessment procedures[364].

2.11.10 Weaknesses of the EIA and SEA system[365]

- Lack of experience and expertise;
- Lack of trained staff;
- Lack of detailed guidelines and a unitary methodology;
- Inadequate technical equipment;
- Low quality of the environmental assessment;
- Weak institutional framework;
- Limited capacity of the authorities responsible for environmental protection;
- Lack of interest of the developer to integrate environmental issues in the plan;

[362] "Effectiveness of environmental impact assessment in Romania and simple means to improve it", report prepared in 2011 within the UNDP-GEF Project MP5-PIMS 3069, "Strengthening the Capacity to Integrate Environment and Natural Resources Management for Global Environmental Benefits (CB2)": http://undp.ro/libraries/projects/Effectivness_of_EIA_in_Romania_01.pdf, p. 20

[363] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 19

[364] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 21, 26

[365] *Dutu*, M., *Nistor,* M., *Manoleli,* D., *Sarbu,* C. : "The Situation in Romania Regarding Legislation on Environmental Impact Assessment", www.nomosphysis.org.gr, p. 2 / "Effectiveness of environmental impact assessment in Romania and simple means to improve it", report prepared in 2011 within the UNDP-GEF Project MP5-PIMS 3069, "Strengthening the Capacity to Integrate Environment and Natural Resources Management for Global Environmental Benefits (CB2)": http://undp.ro/libraries/projects/Effectivness_of_EIA_in_Romania_01.pdf, p. 51-57

- Lack of transparency and difficult access to information;
- Low public participation because of inadequate communication measures (announcements only in local newspapers or panels at the city hall).

2.12 Russia

2.12.1 EIA

Some elements of an environmental assessment have existed in the USSR since the 1960s. Environmental impacts of selected large scale activities were evaluated by various sectoral expert committees or 'expertizas'[366]. A coherent system, however, was not developed until the 1980s, when the awareness towards environmental problems finally started to grow[367].

Attempts to introduce EIA in the USSR and, later, in Russia, have led to the development of the SER/OVOS system, which is still in effect today.

2.12.2 Key legal framework[368]

- Federal Law "On Environmental Protection" of 10 January 2002 (Law No. 7-FZ)
- Federal Law "On Environmental Review" of 23 November 1995 (Law No. 174-FZ)
- Regulation on the Procedure for the Implementation of the State Environmental Review, which was confirmed by the Russian government on 11 June 1996 (Government Decree No. 698)
- Regulation on the Assessment of Environmental Impacts of a Planned Project in the Russian Federation, which was confirmed by the State Commission for Ecology on 16 May 2000 (Regulation No. 372), applicable insofar as it does not conflict with the current legislation of the Russian Federation
- Regulation on environmental impact assessment of the project documentation of construction, re-construction, overhaul and maintenance of objects located on the territory of protected areas (approved by Ministerial Decree No. 822 on 7 November 2008)
- Regional Law (Krasnodar Krai) "On Environmental audit" of 12 March 2007 (Law No. 1205-KZ)
- The Town Planning Code of 29 December 2004 (Law No. 190-FZ)
- The Regulation on the Content of the EIA Sections of Construction Documentation of 16 February 2008 (Government Decree No. 87)
- Decision of the Government "On Organization and Conduction of the State Review of the Project Documentation and the Results of the Engineering Survey" of 5 March 2007 (No. 145)
- Decision of the Government "On the Endorsement by the Federal Fisheries Agency of Construction and Revamping Works of Capital Construction Facilities, the Introduction of New Technological Processes and the Performance of other Activities affecting Aquatic Biological Resources and their Habitat" of 30 April 2013 (No. 384)

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[366] *Ratsiborinskaya,* Daria. N., „Russian Environmental Law – An Overview for Businesses", p. 13

[367] *Cherp,* Aleg, *Golubeva,* Svetlana: Environmental assessment in the Russian Federation: evolution through capacity building, Impact Assessment and Project Appraisal, 22:2, p. 122, DOI: 10.3152/147154604781766030

[368] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 8: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf / *Lednova,* Julia, RSHU, Contribution for the CoCoNET-Project / Deliverable 6.6 (2015), p. 3 / Finnish Funding Agency for Innovation (Tekes), Arctic Centre of the University of Lapland, "Environmental Impact Assessment Processes in Northwest Russia: Russian EIA Legislation": http://www.arcticcentre.org/RussianEIA/legislation / www.faolex.fao.org

- Statute on peculiarities of conducting the State Environmental Review of the project documentation of the Olympic venues, the construction, reconstruction and major repairs of which are planned to be carried out on the lands of specially protected natural sites of federal significance (approved by Government Decree No. 824 of 17 October 2009)

2.12.3 Controversial reform

Until 1 January 2007, the Russian procedure consisted only of the Environmental Impact Statement of Project Planning (in Russian: OVOS – otsenka vozdeistuiia na okruzhaiushchuiu sredu/assessment of environmental impacts), and the Environmental Impact Assessment of Project Documentation (SER – gosudarstvennaya ekologisheskaya expertiza/State Environmental Review). Whereas the OVOS is organised and implemented by the project developer, the SER is carried out by state-appointed expert committees[369].

In 2003, an administrative reform was initiated in Russia with the goal of stopping state overregulation of companies and their economic activities, of avoiding competency overlaps and of clearly defining the competencies of the executive authorities at the federal and regional level[370].

This opportunity has been taken to weaken a number of laws protecting the environment. In order to implement Art. 49 of the amended Town Planning Code, the Federal Law "On Environmental Review" of 23 November 1995 (Law No. 174) and other legislative acts regarding projects subject to a mandatory environmental assessment have notably been changed.

The new provisions substitute the SER for many construction projects by an experts' evaluation of the project documentation. Thus, only the conformity of the project documentation with all technical regulations is verified, and neither an independent assessment of the project itself nor an appropriate opportunity for public participation in the assessment process is ensured anymore[371].

Moreover, big industrial companies and especially oil companies regularly push for even lower standards with regard to EIA requirements. For example, in June 2014, a law was proposed, which would have eliminated EIA for several types of construction projects, inter alia for all offshore drilling projects. The oil industry argued that the EIA procedure is an excessive administrative barrier for investments[372]. However, due to a broad public campaign, the law has been prevented[373].

2.12.4 OVOS

The concept of OVOS stemmed from the attempt to translate the western understanding of an EIA into the Russian context. However, no Soviet or Russian legislative act mentions the concept of OVOS, it has been only addressed by a number of regulatory guidelines and instructions. Mainly to comply with the requirements of the 1991 UNECE Convention on Environmental Impact Assessment in a Transboundary Context, the Order of the Minister of Environment No. 222 of 18 July 1994

[369] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 9: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf
[370] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 9: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf
[371] *Donahoe,* Brian, "Environmental Justice and Sustainability in the Former Soviet Union", edited by Julian Agyeman and Yelena Ogneva-Himmelberger, Massachusetts Institute of Technology (2009), p. 31
[372] Greenpeace Russia, "Russian deputies making fun of environmental standards", (23 June 2014): http://www.greenpeace.org/russia/en/news/23-06-2014_oil_against_envir_expertise/
[373] Information of Vladimir Chuprov, Greenpeace Russia, of 26.02.2015

introduced the first 'OVOS Regulations'. Currently, the OVOS procedure is set out in the Regulation on the Assessment of Environmental Impacts of a Planned Project in the Russian Federation No. 372, which has been confirmed by the State Commission for Ecology in 2000[374].

The OVOS regulations define OVOS as "a process encouraging an ecologically informed administrative decision on implementation of economic and other activities through identification of possible adverse impacts, assessment of ecological impacts, taking into account public opinions, and developing measures to mitigate and prevent negative impacts"[375].

According to Art. 32 I of the Federal Environmental Law of 10 January 2002 (Law No. 7), an impact assessment has to be carried out by all project developers whose activities may directly or indirectly affect the environment, regardless of their organizational or legal form. This provision of Law No. 7 remains, even after the reform, in effect. The necessary degree of detail of an EIA study depends on the scale and type of a project and on the characteristics of the region[376].

Project documentation for the State Environmental Review has to be prepared according to Regulation No. 372, Chapter 5. Project documentation for the State Review has to be prepared according to the Regulation on the Content of the EIA Sections of Construction Documentation of 16 February 2008 (Government Decree No. 87). Project documentation for both the State Environmental Review and the State Review has to comply with both the Regulation No. 372 and the Government Decree No. 87[377].

Environmental organizations believe that project developers are not interested in conducting a transparent and objective EIA, but just aim to push through their project at any cost. Not the OVOS but the SER has thus been considered being the only real safeguard of the environment[378].

2.12.5 SER

Projects subject to SER

The list of projects subjected to a mandatory environmental assessment has included all large-scale energy, industry and agricultural facilities before 2007. This broad scope resulted in more than 90,000 SER procedures in 1996[379].

Since 1 January 2007, only the following projects and documents are subject to an SER[380]:

[374] *Ratsiborinskaya,* Daria. N., „Russian Environmental Law – An Overview for Businesses", p. 14
[375] *Solodyankina,* Svetlana, *Koeppel,* Johann: The environmental impact assessment process for oil and gas extraction projects in the Russian Federation: possibilities for improvement (2009), 27:1, p. 78, DOI: 10.3152/146155109X430344
[376] *Anisimov,* Scientific-Practical Commentary of the Federal Law "On Environmental Protection", http://kommentarii.org/ooc/page39.html
[377] Finnish Funding Agency for Innovation (Tekes), Arctic Centre of the University of Lapland, "Environmental Impact Assessment Processes in Northwest Russia: Project Documentation": http://www.arcticcentre.org/RussianEIA/Process/Materials/stage2_5
[378] *Cherp,* Aleg, *Golubeva,* Svetlana: Environmental assessment in the Russian Federation: evolution through capacity building, Impact Assessment and Project Appraisal, 22:2, p. 123, DOI: 10.3152/147154604781766030
[379] *Cherp,* Aleg, "EA in the Russian Federation", in "Environmental Assessment in Developing and Transitional Countries", edited by Norman Lee and Clive George, John Wiley & Sons LTD 2000

- Drafts of technical specifications and methodological instructions on environmental protection;
- Federal and regional target programmes;
- Documents for obtaining authorization for projects with potential environmental impacts;
- Technical documents on new processes and substances which could enter and harm the environment;
- Documents for the examination of areas of federal or regional importance, prepared to decide on their certification as protected areas, or as ecological emergency areas;
- Projects specified in the Federal Laws and "On the Internal Waters, the Territorial Sea and the Contiguous Zone of the Russian Federation" of 31 July 1998 (Law No. 155-FZ), "On the Continental Shelf of the Russian Federation" of 30 November 1995 (Law No. 187-FZ), "On the Exclusive Economic Zone of the Russian Federation" of 17 December 1998 (Law No. 191-FZ)/Art. 49 point 6 Town Planning Code for constructions and reconstructions.

Thus, for all projects planned in the sea, an SER has to be carried out, regardless of the scope of the project. This concerns inter alia the geological exploration of the continental shelf, the exploitation of mineral resources, the utilisation of aquatic bio-resources, the establishment of artificial islands, buildings and facilities, underwater cables and pipelines and waste disposal[381]. Consequently, an SER would be required for any OWF project.

Competence

In 2000, the government abolished the State Committee for Environmental Protection (SCEP) and included the environmental assessment in the competences of the Ministry of Natural Resources. This step has been considered a major setback for the protection of the environment[382], since the Ministry was then simultaneously responsible for both, the control and the use of natural resources[383]. Besides, the total number of SER officials has been reduced from approximately 700 in the year 2000 to approximately 400 in 2002[384]. This has limited the effectiveness of the assessment procedure, especially because of the reduced capacity to monitor and enforce the compliance with the assessment decisions[385].

Since Federal Law No. 199 of 31 December 2005 (Art. 10) came into force, the Federal Service for Supervising Natural Resources (Rosprirodnadzor) is responsible within the Ministry of Natural Resources for the State Environmental Review of federal projects which are subject to a mandatory

[380] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 10: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf

[381] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 10: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf

[382] *Cherp,* Aleg, *Golubeva,* Svetlana: Environmental assessment in the Russian Federation: evolution through capacity building, Impact Assessment and Project Appraisal, 22:2, p. 124, DOI: 10.3152/147154604781766030

[383] *Khmeleva,* Ekaterina, "Legal Aspects: The state of legislation and legal practice" in "Sustainable Development in Russia", edited by Sergei Bobylev and Renat Perelet, Russian-German Environmental Information Bureau, Berlin – St. Petersburg 2013, p. 20

[384] *Von Ritter,* Konrad, *Tsirkunov,* Vladimir: How Well is Environmental Assessment Working in Russia? Worldbank, May 27, 2003: http://siteresources.worldbank.org/INTRUSSIANFEDERATION/Resources/305499-1094736798511/518266-1094740495242/env_assessment_pilot_study_eng.pdf, p. 18

[385] *Cherp,* Aleg, *Golubeva,* Svetlana: Environmental assessment in the Russian Federation: evolution through capacity building, Impact Assessment and Project Appraisal, 22:2, p. 126, DOI: 10.3152/147154604781766030

examination[386]. The Federal Service for Ecological, Technological and Nuclear Supervision (Rostekhnadzor) of the government of the Russian Federation is responsible for federal projects with potential environmental impacts, and the regional executive authorities for such regional projects[387] (see also Art. 49 point 4.1. Town Planning Code).

If the proposed project is planned to be realized on federal lands, in the sea, or on protected natural areas of federal, regional or local significance, it is recommended to apply to both the federal and the regional authorities[388].

1. Procedure

During the SER, the compliance of the project with environmental laws and regulations is verified by an expert committee. Within the assessment, potential negative impacts on the environment and concerns of the general public are examined. The outcome of the SER is a legally binding resolution. In the case of a negative decision, the project is not allowed to be implemented. Based on the results of the assessment, measures to prevent and reduce environmental impacts are developed[389] and their implementation is subsequently checked by the Environmental Protection Committee as part of a post-project analysis[390].

The SER procedure has been criticized for being too technocratic and bureaucratised, and therefore, unable to offer the degree of access to information, transparency and participation that is nowadays demanded by the public[391].

2. State Review of the project documentation

According to Art. 49 of the Town Planning Code, the project documentation for constructions, reconstructions or objects of transport infrastructure as well as engineering survey results require a review that can be either 'state' or 'non-state'.

The State Review is conducted by the Federal Autonomous institution the Central Office of the State Review (FAI Glavgosexpertiza) and its regional departments, according to the Decision of the Government "On Organization and Conduction of the State Review of the Project Documentation and the Results of the Engineering Survey" of 5 March 2007 (No. 145). In practice, however, each region has its own regulations on organizing and conducting the State and Non-State review[392].

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[386] Russian Federation: Federal Law No. 199-FZ amending some legislative acts: http://faolex.fao.org/cgi-bin/faolex.exe?rec_id=053146&database=faolex&search_type=link&table=result&lang=eng&format_name=@ERALL

[387] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 9: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf

[388] Finnish Funding Agency for Innovation (Tekes), Arctic Centre of the University of Lapland, "Environmental Impact Assessment Processes in Northwest Russia: Frequently Asked Questions": http://www.arcticcentre.org/RussianEIA/FAQ

[389] Environmental Policy and Regulation in Russia: The Implementation challenge, OECD 2006, http://www.oecd.org/env/outreach/38118149.pdf, p. 14

[390] *Cherp,* Aleg, "EA in the Russian Federation", in "Environmental Assessment in Developing and Transitional Countries", edited by Norman Lee and Clive George, John Wiley & Sons LTD 2000

[391] *Cherp,* Aleg, *Golubeva,* Svetlana: Environmental assessment in the Russian Federation: evolution through capacity building, Impact Assessment and Project Appraisal, 22:2, p. 123, DOI: 10.3152/147154604781766030

[392] Finnish Funding Agency for Innovation (Tekes), Arctic Centre of the University of Lapland, "Environmental Impact Assessment Processes in Northwest Russia: State ecological expertize (SEE) and State/Non-State expertize (SE)": http://www.arcticcentre.org/RussianEIA/Process/Expertize/stage4_1

The State Review of the project documentation is basically an expert assessment that verifies if the project documentation meets the requirements of the technical regulations (Art. 49 point 5 Town Planning Code[393]). It takes about 60 days[394].

3. SER, State Review or both?

In practice, the governmental authorities recommend to send them an official request with information about the project in order to get clarified which procedure has to be conducted for a certain project[395]. For projects that include construction, reconstruction or objects of transport infrastructure, and that are planned in protected natural areas, on internal waters, the territorial sea, the contiguous zone, on the continental shelf or in the exclusive economic zone of the Russian Federation, both the SER and the State Review have to be carried out. The developer has to submit the project documentation first for the SER, and subsequently for the State Review. All project documentation has to contain a section on EIA[396].

4. Public Environmental Review

Art. 20 of the Federal Law "On Environmental Review" states that on the initiative of citizens, registered public organizations (associations) and bodies of the local government, whose objective is, according to their charter, environmental protection, a public environmental review has to be conducted prior or simultaneously to the SER. The result of this review is a non-binding resolution[397].

However, only a limited number of organizations can register for the public review, and there have been complaints about organizations that have only registered to block the participation of real environmental organizations[398]. And, since documents on the planned project are rarely handed over by the developers, also because they claim that documents contain commercial or other secrets, a thorough public review is often not possible[399].

[393] ConsultantPlus: http://www.consultant.ru/popular/gskrf/15_7.html

[394] Finnish Funding Agency for Innovation (Tekes), Arctic Centre of the University of Lapland, "Environmental Impact Assessment Processes in Northwest Russia: Frequently Asked Questions": http://www.arcticcentre.org/RussianEIA/FAQ

[395] Finnish Funding Agency for Innovation (Tekes), Arctic Centre of the University of Lapland, "Environmental Impact Assessment Processes in Northwest Russia: Frequently Asked Questions": http://www.arcticcentre.org/RussianEIA/FAQ

[396] Finnish Funding Agency for Innovation (Tekes), Arctic Centre of the University of Lapland, "Environmental Impact Assessment Processes in Northwest Russia: State ecological expertize (SEE) and State/Non-State expertize (SE)": http://www.arcticcentre.org/RussianEIA/Process/Expertize/stage4_1

[397] *Cherp,* Aleg, "EA in the Russian Federation", in "Environmental Assessment in Developing and Transitional Countries", edited by Norman Lee and Clive George, John Wiley & Sons LTD 2000

[398] *Lorentzen,* Yngvild, "Manipulation of Public Participation", Norges Naturvernforbund (January 2010): http://naturvernforbundet.no/getfile.php/Dokumenter/Div.%20vedlegg%20til%20nettsaker/10.02.03%20NNV%20-%20Note%20on%20increased%20pressure%20on%20Russian%20env%20movement.pdf (25.02.2015), p. 3-4

[399] *Lesser,* Pamela, Finnish Funding Agency for Innovation (Tekes), Arctic Centre of the University of Lapland, "Environmental Impact Assessment Processes in Northwest Russia: The Russian EIA Chart": http://www.arcticcentre.org/RussianEIA/Chart

5. The procedural steps of the ecological component of the project planning process[400]

<table>
<tr><th>The steps of project planning</th><th colspan="2">Steps of the ecological component</th></tr>
<tr><td>1. Planning intent</td><td colspan="2">1. Initial outline of the project
2. Screening of environmental impacts
3. Preparation and submission of a Statement of Intent to the competent authority
4. Preliminary assessment of the Statement
5. Consultation with the control authorities and information of the public
6. Decision on the fundamental permissibility of the project, determination of the procedure
7. Definition of the framework for the OVOS in the project explanatory statement/Technical and Economic Feasibility Study</td></tr>
<tr><td>2. Implementation of the OVOS</td><td colspan="2">1. Preparation of a document about the result of technical and environmental investigations
2. Final decision on the permissibility of the project
3. Preliminary agreement on the project site (Land Code No. 136-FZ of 25 October 2001)</td></tr>
<tr><td rowspan="3">3. Assessment of the documents</td><td colspan="2">1. Preparation of a Technical and Economic Feasibility Study (TEO) and/or documents on Environmental Protection
2.</td></tr>
<tr><td>For projects subject to a State Environmental Review: Creation of a Commission of Experts/examination of all project-related environmental impacts</td><td>For projects not subject to a State Environmental Review: Review of the documents by an Environmental Assessment Agency (chosen by the Project Developer) - recommendations</td></tr>
<tr><td colspan="2">3. Provision of a plot of land for the implementation of the project</td></tr>
<tr><td>4. Project implementation</td><td colspan="2">1. Implementation of the project and of the measures for the protection of the environment
2. Approval of the project by an Acceptance Commission
3. Environmental monitoring during the construction and operation of the project</td></tr>
</table>

6. Recommendations

Provide for a screening stage in the procedure

In Russia, for all projects approvable in principle, the multi-stage approval procedure has to take place, even if a harmful effect on the environment can be excluded[401]. This undifferentiated approach to EIA often results in a waste of time as well as financial resources and puts a

[400] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 16: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf

[401] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 34-35: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf

disproportionately great burden on initiators of small- and medium-sized projects with no significant environmental risks[402]. Also, the high amount of projects to be assessed often leads to a merely formal and superficial assessment.

The authority to simplify the EIA procedure has been delegated to the regions in Russia. Only few SER offices have, however, prepared screening guidelines, partly due to uncertainty regarding the division of competences[403].

Assign a more important role to scoping

In the Russian procedure, the scope of the investigation is determined by the project developer, and its approval is a mere formality. This work step, however, predetermines how comprehensively the opinions and interests of all participants in the approval process are taken into account, and thereby predetermines the quality, reliability and objectivity of the environmental impact study[404].

Clearly define the requirements on the content of the documents

There are no clear and detailed guidelines in Russia on how to assess which type of impact. Thus, the requirements on the assessment of environmental impacts of projects differ depending on the authority responsible for the assessment. Besides, authorities responsible for other sectors add their own requirements, for example for the evaluation of historical and cultural assets or for industrial safety, which makes it difficult for developers to comply with all formalities[405].

Co-operation in the planning process

In Russia, the competent authority only ensures the compliance with the formal requirements. It would, however, contribute to the effectiveness of the planning process if an experienced authority would also act as an advisor to the project developer and as a mediator between all people involved in or affected by the project[406].

Consideration of objections of the affected population

In the relevant legislation, the manner in which the population affected by the project, and also the general public, are to be involved in the decision-making process is not defined clearly enough[407].

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[402] *Von Ritter,* Konrad, *Tsirkunov,* Vladimir: How Well is Environmental Assessment Working in Russia? Worldbank, May 27, 2003: http://siteresources.worldbank.org/INTRUSSIANFEDERATION/Resources/305499-1094736798511/518266-1094740495242/env_assessment_pilot_study_eng.pdf, p. 17

[403] *Dalal-Clayton,* Barry, *Sadler,* Barry, "Strategic Environmental Assessment – A Sourcebook and Reference Guide to International Experience", Earthscan 2005, p. 191

[404] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 35: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf

[405] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 30: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf / *Lednova,* Julia, RSHU, Contribution for the CoCoNET-Project / Deliverable 6.6 (2015), p. 3

[406] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 30-31: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf

[407] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 31: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf

This facilitates an arbitrary interpretation of the respective provisions, which is conducive to conflicts[408].

Develop capacity in environmental assessment

There has been noticeable lack of know-how in the Russian authorities on how to assess environmental impacts. Capacity could be developed, for example, through education, research, information dissemination and the establishment of international contacts[409].

Ensure natural compensation for impacts

In Russian practice, cash payments are the most common form of compensation, whereas natural compensation, which would protect the environment more effectively, is rarely required[410].

Establish an SEA system

The provisions for projects are applied to certain plans and programmes as well. There are, however, no provisions adapted to the peculiarities of a strategic assessment.

Adapt national legislation to international standards

Project developers often have to provide two sets of EIA documentation to comply with Russian and with international requirements, which costs time and money[411].

Ratify international conventions on EIA

Furthermore, a ratification of the Espoo Convention on Environmental Impact Assessment in a Transboundary Context would ensure an efficient co-operation in the assessment of environmental impacts. The USSR has signed the Convention on 9 June 1991, which action, however, has not yet been confirmed by the government of the Russian Federation[412].

2.13 Turkey

2.13.1 EIA

In Turkey, the awareness towards environmental issues has considerably increased in the last decades. As a result, framework environmental policies, also on EIA, have been drawn up, and the administrative structure has been established to implement them[413].

[408] Environmental Policy and Regulation in Russia: The Implementation challenge, OECD 2006, http://www.oecd.org/env/outreach/38118149.pdf, p. 15

[409] *Cherp,* Aleg, *Golubeva,* Svetlana: Environmental assessment in the Russian Federation: evolution through capacity building, Impact Assessment and Project Appraisal, 22:2, p. 126, DOI: 10.3152/147154604781766030

[410] *Müller,* Bernhard, *Plyusnin,* Victor: Assessment of Environmental Impacts and Ecological Expertise – Professional experience of EIA issues in Russia and Germany (2012), p. 58: http://www.irigs.irk.ru/files/EE%20und%20OVOS%20english%20version.pdf

[411] Oil and Gas Eurasia, Environmental Impact Assessment: https://www.oilandgaseurasia.com/ru/tech_trend/оценка-воздействия-на-окружающую-среду-отечественный-и-международный-подходы/page/0/1

[412] UN Database: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-4&chapter=27&lang=en

[413] *Türkmen,* Ali Sefa "Turkey: An Overview on Environmental Impact Assessment Procedures in Turkey" http://www.mondaq.com/x/103760/Environmental+Law/An+Overview+on+Environmental+Impact+Assessment+Procedures+in+Turkey

2.13.2 Key legal framework

Environmental Law of Turkey (Law No. 2872/11 August 1983)[414]

Assessment of Environmental Impact

Art. 10:

The institutions, agencies and establishments, whose planned activities can lead to environmental problems, have to prepare an Environmental Impact Assessment Report. In this report, all impacts on the environment are to be considered and the methods for eliminating the harmful impacts of wastes and scraps that may cause environmental pollution and the corresponding precautions are to be specified.

The issues concerning the type of projects for which this Environmental Impact Assessment Reportis required, its contents and the endorsement authority will be specified in a regulation.

EIA regulation

The EIA Regulation entered into force on 7 February 1993 (published in Official Gazette (OG) No. 21489). The Regulation was amended and revised various times, on 23 June 1997 (OG No. 23028), 6 June 2002 (OG No. 24777), 16 December 2003 (OG No. 25318) and 17 July 2008 (OG No. 26939)[415].

2.13.3 Competencies

At the national level, the General Directorate for EIA and Planning of the Ministry of Environment and Urbanization (MoEU) is the main competent authority for implementing the EIA regulation. At the sub-national level, the competent authorities for EIA are the 81 provincial directorates. The staff of the EIA and Planning Directorate are responsible for the complete EIA procedure, from the EIA screening application to the issuance of the official decision on the EIA report[416].

2.13.4 EIA consultancies

The MoEU certifies the consulting companies competent to prepare EIA reports. The criteria for the certification are specified in the EIA by-law and were tightened by the last update of the by-law (in 2008), decreasing the number of certified companies from 185 to 135[417].

2.13.5 EIA procedure[418]

According to the EIA regulation, an EIA is necessary in Turkey before any activity is started that could be detrimental to the environment.

Stages of the EIA process[419]

An Annex to the Regulation classifies activities that require an EIA into two categories:

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[414] www.faolex.fao.org

[415] *Türkmen,* Ali Sefa "Turkey: An Overview on Environmental Impact Assessment Procedures in Turkey" http://www.mondaq.com/x/103760/Environmental+Law/An+Overview+on+Environmental+Impact+Assessment+Procedures+in+Turkey

[416] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 27

[417] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 27

[418] *Coşkun,* Aynur Aydın, *Turker,* Ozhan, "Analysis of environmental impact assessment (EIA) system in Turkey", Environ Monit Assess (2011) 175:213-226

[419] *Türkmen,* Ali Sefa "Turkey: An Overview on Environmental Impact Assessment Procedures in Turkey" http://www.mondaq.com/x/103760/Environmental+Law/An+Overview+on+Environmental+Impact+Assessment+Procedures+in+Turkey

- Projects with significant potential impacts require a full EIA report (Annex I), as well as capacity increases equal or above the threshold values contained in Annex I.
- Projects that may have impacts require further analysis (Annex II). For these projects, a pre-EIA report (Project Information File/PIF) is prepared and submitted to one of the 81 Provincial Environmental Directorates, to find out whether a full EIA report is necessary.

A decision is then made by the Provincial Environmental Directorates, either 'EIA Necessary' or 'EIA Not Necessary'. A decision that an EIA is not required is valid for five years[420]. If the final decision is 'EIA Necessary', the full EIA procedure, which is described in the following paragraph, is applied[421].

A list of questions about the area and the project is used by the authorities as a tool to make the decision in the screening process, for example[422]:

- Are there any sensitive areas in or close to the project location?
- Will water use and wastewater disposal result in negative changes in the environment?
- Do values for solid, liquid and gaseous wastes and noise comply with the standards set in the relevant legislation?
- Are any social or cultural changes expected in or near the project area?

Depending on the importance, type and capacity of the project, the total number of questions in the list varies between 10 and 20.

a. Wind farms

According an amendment to the EIA regulation published in Official Gazette No. 27980 dated 30 June 2011, wind farms with 75 MW or more capacity are included in Annex I, consequently, an EIA report has to be prepared. Wind power plants with 10–75 MW capacity are included in Annex II, thus a PIF has to be prepared to decide if the full EIA procedure is necessary[423]. According to a subsequent amendment, published in Official Gazette No. 29186 dated 25 November 2014, no assessment report is necessary for wind farms having a 1 to 50 MW installed capacity[424].

b. Annex I Projects

The application procedure to obtain an 'EIA Positive' decision comprises six steps:

1. Initiating the EIA process

The project owner has to submit to the Ministry (MoEU) all relevant documents (EIA Application File corresponding to the general format given in Annex III) and a brief report, summarizing the characteristics of the project, the impact area and the potential environmental impacts as well as possible mitigation measures. If the application has been duly prepared, the Ministry establishes a Scoping and Assessment Committee consisting of representatives of relevant institutions and organizations, officials of the Ministry and the applicant.

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[420] Environmental law and practice in Turkey: overview, A Thomson Reuters Legal Solution, http://uk.practicallaw.com/7-522-2040

[421] Vakıfbank: Environmental Review Procedures: www.vakifbank.com.tr, p. 11

[422] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 29-30

[423] Enerjisa: Non-Technical Summary (NTS) for the for Balıkesir-1 Wind Farm in Balıkesir, Turkey, 14 September 2011: http://www.ebrd.com/pages/project/eia/42978.pdf, p. 2-2

[424] *Roy,* Matthieu, "New environmental impact assessment regulation: essential information for all new projects", Gide, Loyrette, Nouel (23 January 2015): http://www.gide.com/fr/actualites/turkey-new-environmental-impact-assessment-regulation-essential-information-for-all-new

2. Public participation

Public participation is possible throughout the whole EIA procedure, through the opportunity to submit written comments. However, only one public participation meeting must take place, between the screening and the scoping stage, in order to inform the public about the project and to learn about the opinions and recommendations of all stakeholders with regard to the project. The Public Participation Meeting is to be organized by the owner of the project as close as possible to the location of the project. According to the EIA regulation, the Public Participation Meeting is to be announced on the MoEU's web page, local and national newspapers, brochures and announcements, at least 10 days before the meeting[425].

3. Scope and special format determination

The special format, thus the scope of the EIA, is specified by the Committee at a 'Scoping Meeting'. All issues that have been revealed at the Public Participation Meeting have to be taken into account. The Ministry informs the project owner about the special format. The project owner is then obliged to submit the Draft EIA Report, prepared according to that format, to the Ministry within one year[426]. If the EIA Report is not submitted within that period, the application is considered void.

4. Cumulative impacts

The Environmental Impact Assessment Regulation of 3 October 2013 (Official Gazette No. 28784) officially introduced a new concept, the cumulative impact assessment (CIA), which is now required to be carried out during the EIA process. CIA means that not only the environmental impacts of a single project, but also the collective environmental impacts of several projects located in the same region and are either under development or in operation, are examined[427]. However, the details of the required assessment of cumulative impacts remain unclear, making it likely that many EIA decisions will be challenged in court[428].

5. Submission of the EIA report

The EIA report is examined by the Ministry. It checks the report complies with the general format and that it has been prepared by qualified professionals. Then, the assessment process is initiated and the publication of the EIA report is announced.

A typical EIA report (specific for each project) contains[429]:

- A description and of the project and its purpose;
- The location of the project;
- A description of location and technology alternatives;
- Environmental characteristics of the project site and impact area;
- Important environmental concerns and mitigation measures;
- Information on public consultation;

[425] Vakıfbank: Environmental Review Procedures: www.vakifbank.com.tr, p. 16-17

[426] *Özsayin,* Sibel, "Turkish EIA Legal Framework – Implementation and Application", http://www.unece.org/fileadmin/DAM/env/eia/documents/Events/SzentendreDec10/1.4a_EIA_Turkey.pdf, p. 8

[427] *Orak,* Cem Çağatay, "Cumulative Impact Assessments in the Environmental Impact Assessment Process", Çakmak Avukatlık Bürosu (July 2014): http://www.cakmak.av.tr/articles/Power/CumulativeImpactAssessment.pdf, p. 1

[428] *Orak,* Cem Çağatay, "Cumulative Impact Assessments in the Environmental Impact Assessment Process", Çakmak Avukatlık Bürosu (July 2014): http://www.cakmak.av.tr/articles/Power/CumulativeImpactAssessment.pdf, p. 2

[429] *Özsayin,* Sibel, "Turkish EIA Legal Framework – Implementation and Application", http://www.unece.org/fileadmin/DAM/env/eia/documents/Events/SzentendreDec10/1.4a_EIA_Turkey.pdf, p. 10

- A monitoring programme;
- A non-technical summary.

6. Examination of the EIA report

The Committee then examines the EIA report to ensure that it meets the relevant requirements. Specifically whether the calculations and evaluations are based on sufficient data and information, the likely environmental impacts of the project have been comprehensively examined, the necessary measures to reduce possible negative effects have been determined and that the problems raised in the Public Participation Meeting have been tackled (Art. 12). Based on the comments of the Committee, the Final Report is prepared and made publicly available in the respective Provincial Environmental Directorate for 10 working days. Any comments received from the public are taken into consideration before giving an 'EIA Positive' or 'EIA Negative' and before finalizing the report[430].

7. Decision: 'EIA Positive' or 'EIA Negative'

The project owner then submits the EIA report to the Ministry which takes the decision 'EIA Positive' or 'EIA Negative' and informs the project owner as well as other relevant institutions. The decision and its justification also have to be announced by appropriate communication means. If the project is not initiated within seven years, the decision is considered void. The project is not allowed to be implemented in case of a negative decision. This 'all-or-nothing approach' does not correspond to the international approach to EIA, according to which the EIA decision does not necessarily anticipate the decision on the development consent[431].

Between 1993 and 2009, 1,602 EIA procedures have been analysed and only 0.3% of them have resulted in an 'EIA Negative' decision[432].

c. Annex II Projects

1. Selection and elimination criteria

If the project is subject to Selection and Elimination criteria due to its type or scope, the project owner has to ask the Ministry to examine whether an EIA application is necessary by submitting the Project Information File. The Ministry may require more detailed information on the project. If the Ministry decides that an EIA is required, the whole EIA application procedure is to be performed.

2. Monitoring of the project

The EIA regulation requires that a monitoring programme is defined in a special chapter of the EIA report. The monitoring programme must precisely specify the locations, timing and parameters to be monitored. According to the commitments set out in the EIA report, monitoring and control activities are to be conducted in the construction, operation and post-operation phases. Monitoring is usually subcontracted to an independent licensed company and paid for by the developer. Monitoring reports must then be submitted regularly to the authority that has issued the environmental permit[433]. The Ministry checks that the project owner fulfils the requirements of the EIA report and can, if necessary, extend the deadline or decide that the work on the project is to be ceased.

[430] Vakıfbank: Environmental Review Procedures: www.vakifbank.com.tr, p. 12

[431] *Innanen,* Sally E. R., (2004) "Environmental impact assessment in Turkey: capacity building for European Union accession", in Impact Assessment and Project Appraisal (2004), 22:2, 141-151, DOI: 10.3152/147154604781765987, p. 150

[432] *Coşkun,* Aynur Aydın, *Turker,* Ozhan, "Analysis of environmental impact assessment (EIA) system in Turkey", Environ Monit Assess (2011) 175:213-226, p. 218

[433] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 31

3. Example of the content of an EIA report for a wind farm

Environmental and Social Impact Assessment of Salman Wind Farm, İzmir, Turkey (April 2013)[434]:

1. Introduction
2. Legal Framework
3. Project Description
4. Environmental and Social Baseline
5. Environmental Impacts
6. Socio-Economic Impacts
7. Occupational and Community Health and Safety
8. Analysis of Alternatives
9. Environmental Management Plan

For the Salman Wind Farm Project, according to Art. 6 and Annex II of the EIA regulation (wind farm projects with a capacity between 10 and 75 MW), a Project Information File has been prepared and submitted to the İzmir Provincial Directorate of Environment and Urbanization. In August 2011, the 'EIA Not Necessary' decision has been issued. However, as it is often the case, international investors have required the compliance with international EIA standards (International Finance Corporation – World Bank Performance Standards and Guidelines), so that an EIA Report has been prepared despite that decision.

2.13.6 Harmonization with EU standards[435]

Most of the requirements of the EIA Directive (Directive 2011/92/EU) have been transposed. There are, however, no provisions on a transboundary EIA (required by Art. 7 of the EIA Directive) yet. According to the MoEU, the intention is to transpose Art. 7 only in the case of an accession to the EU. So far, there has been no transboundary EIA notification from Turkey. As an intermediary solution suggested by the EU, further efforts have been focused on developing bilateral agreements with the neighbouring countries Greece and Bulgaria. In its 2014 Progress Report on Turkey, the EU has identified, however, that Turkey has not sent any drafts for such bilateral agreements[436].

The EU directives related to the Natura 2000 system of protected sites have not yet been transposed in Turkey. According to the Habitats Directive (92/43/EEC) "Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives" (Art. 6 III 1). In a draft law for biodiversity conservation that aims to transpose the Birds Directive and the Habitats Directive (except in the transboundary context), appropriate assessment is defined as 'ecological evaluation'.

2.13.7 SEA

The first draft of an SEA by-law was developed within the framework of the project "Adoption and Implementation of the EU SEA Directive in Turkey" (2003–2005, MATRA), funded by the Ministry of Economic Affairs of the Netherlands. In 2008 and 2009, a second MATRA project, "Strengthening

[434] AECOM Environment: Environmental and Social Impact Assessment of Salman Wind Farm, İzmir, Turkey (April 2013), http://www.agaportal.de/pdf/nachhaltigkeit/eia/eia_tuerkei_wind.pdf

[435] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 28

[436] Turkey, 2014 Progress Report of the EU: http://ec.europa.eu/enlargement/pdf/key_documents/2014/20141008-turkey-progress-report_en.pdf, p. 69

Institutional Capacity in Turkey for the Implementation of Strategic Environmental Assessment" was implemented. Both projects included pilot projects and the preparation of application guidelines.

Since capacity has been considered to be not yet sufficient in Turkey for the effective implementation of SEA, the project "Assisting Turkey in the Implementation of the Draft By-law on SEA" under the 2009 Instrument for Pre-accession Assistance (IPA) Programming Component I has been accepted[437]. SEA was planned to be initially only introduced for tourism and land use planning and later extended to the other sectors.

However, the prioritization of economic development objectives[438] and the fact that the development of an SEA system is mainly driven by the desire to join the EU ('obligatory' policy transfer), and not by the conviction that SEA is a useful instrument[439], makes progress difficult.

2.13.8 Weaknesses of the Turkish procedure

1. EIA projects are often handled by inexperienced and profit-orientated private companies with limited capabilities. EIA reports are therefore often prepared based on information found in already existing literature and without any further field observations for data collection[440]. And the EIA Committees do often not investigate the accuracy of the information presented in the report. Also, due to a lack of resources, external experts and academics can often not be invited to the Public Participation Meetings[441].
2. Moreover, it is often not ensured that the mitigation measures specified in the EIA report to minimize the negative impacts of the project are carried out, since the MoEU does not have the capacities for monitoring the development of each project[442].
3. Holding a public participation meeting at an early stage of the EIA process, as required by the EIA regulation, helps to obtain local knowledge about the project location and the potentially affected areas, and therefore helps to determine the optimum scope of the EIA report. However, the EIA consultants may not be able to provide any specific information about the environmental or social risks and potential impacts of the project at this stage, as their report is not yet under preparation[443].
4. Public participation often takes place after the actual EIA procedure, by way of legal action, because the influence of the public participation on the EIA decision is not regulated clearly enough and the public thus doesn't trust in the correctness of a success rate of over 99%. The annulment of EIA decisions, however, leads to uncertainty of investors[444].
5. With regard to wind farms, the minimum threshold of an installed capacity of 75 MW

[437] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf (23.08.2014), p. 32

[438] *Unalan,* Dilek, *Cowell,* Richard, "Adoption of the EU SEA Directive in Turkey", Environmental Impact Assessment Review: Volume 29, Issue 4, July 2009, Pages 243–251

[439] *Unalan,* Dilek, "Environmental Policy Adoption in the EU Context / Adoption of the EU SEA Directive in Turkey", Cardiff University (September 2007), p. 211

[440] PAP/RAC: Coastal Area Management in Turkey, Priority Actions Programme Regional Activity Centre, Split, 2005, p. 56-57

[441] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 31

[442] PAP/RAC: Coastal Area Management in Turkey, Priority Actions Programme Regional Activity Centre, Split, 2005, p. 57

[443] Regional Environmental Center: "Regional Report on the Implementation of SEA and EIA Laws in Bulgaria, Romania and Turkey", June 2011, http://documents.rec.org/topic-areas/BRT%20Regional%20Report.pdf, p. 30

[444] *Coşkun,* Aynur Aydın, *Turker,* Ozhan, "Analysis of environmental impact assessment (EIA) system in Turkey", Environ Monit Assess (2011) 175:213-226, p. 223

required for the mandatory EIA requirement does not ensure an appropriate assessment of the impacts of many smaller farms on the environment. The licenses for wind power plants with installed capacities of more than 75 MW have notably only accounted for 31% of the total licenses granted in 2010 and 2011[445].

6. Besides, environment-related issues often do not receive much consideration during the decision-making process since priority is given to economic development, inter alia because there is an increasing need for resources and investments due to the rapid population growth[446]. For example, in the legal case filed by the Chamber of Architects and Engineers (TMMOB), the Court ruled on 7 January 2013 that the Ilisu dam construction on the Tigris River, proceeding without an EIA, goes against Turkish Environment law and EIA Regulations. The dam will sink the 12,000-year-old city of Hasankeyf. However, to circumvent the requirements of the EIA Regulation, the MoEU just amended it three months later, on April 5 2013, providing an exemption for the Ilisu dam project[447].
7. In November 2014 the Ministry of Environment and Urbanization the Regulations on Environmental impact assessment (EIA) for the 17th time, extending some exemptions from EIA requirements[448]. Already the introduction of additional exemptions in 2013 has been criticized by the EU for not being consistent with the requirements of the EIA Directive[449]. Regarding the new amendments, the President of the Chamber of Environmental Engineers, Baran Bozoğlu, said, "It would be appropriate to say that environmental problems, drought and pollution will increase with the new regulation"[450].
8. Important international conventions, like the Aarhus and the Espoo Convention and its Kyiv (SEA) Protocol, which deal with transboundary environmental impacts and free access to information, have not been ratified by Turkey.

2.14 Ukraine

2.14.1 Key legislation[451]

- Law of Ukraine on Environmental Protection No. 1264-XII (25 June 1991)
- Law of Ukraine on Environmental Review No. 45/95-VR (9 February 1995)
- Resolution of the Cabinet of Ministers of the Ukraine on the List of Activities and Objects which pose a High Risk to the Environment No. 544 (27 July 1995)
- Resolution of the Cabinet of Ministers of the Ukraine on the Procedure for the Submission of Documents for the State Environmental Review No. 870 (31 October 1995)

[445] *Baris,* Kemal, *Kucukali,* Serhat, "Availability of renewable energy sources in Turkey: Current situation, potential, government policies and the EU perspective", Energy Policy 42 (2012) 377-391, p. 388

[446] The National Biological Diversity Strategy Action Plan, Republic of Turkey, Ministry of Environment and Forestry, General Directorate of Nature Conservation and National Park, 2007, p. 107

[447] **Dernegi, Doga, River Watch: NGOs sue Turkish Government over Ilisu Dam construction, Press Release 17.04.2013: http://riverwatch.eu/en/ilisu-en/ngos-sue-turkish-government-over-ilisu-dam-construction**

[448] Yalçin & Toygar & Tüfekçi Law Office, "Change of Regulations on Environmental Impact Assessment" (2 December 2014: http://www.yttlaw.com/lawoffice/change-of-regulations-on-environmental-impact-assessment/

[449] Turkey, 2014 Progress Report of the EU: http://ec.europa.eu/enlargement/pdf/key_documents/2014/20141008-turkey-progress-report_en.pdf, p. 69

[450] Todays Zaman, "Turkey exempts urban projects from environmental impact reports", 26 November 2014: http://www.todayszaman.com/business_turkey-exempts-urban-projects-from-environmental-impact-reports_365422.html

[451] *Cherp,* Aleh, "Independent review of Ukraine's legal, administrative and other measures to implement the provisions of the Convention", United Nations, Economic and Social Council: http://www.unece.org/fileadmin/DAM/env/documents/2009/eia/ic/ece.mp.eia.ic.2009.5.e.pdf, p. 24

- State Building Norms DBN A.2.2-1-2003 "Structure and Content of the EIA during Planning and Construction of Enterprises, Houses and Buildings" No. 214 (15 December 2003)

2.14.2 Development of the EIA system

Old system

Until 2011, the Environmental Impact Assessment system of the Ukraine was still the system that has been inherited from the former Soviet Union and included two connected procedures[452]:

a. OVNS

1. DBN for project documentation

The State Construction Standard, now DBN A.2.2-3-2014, is applicable for new constructions, reconstructions, repair and upgrading of houses, buildings and infrastructure facilities (Art. 1). It regulates the content of the project documentation and replaces DBN A.2.2-3-2012. That an EIA (in Ukrainian: Otsinka Vplyvu na Navkolyshne Seredovysce/OVNS) is to be included in the project documentation for projects that pose a major risk to the environment or projects with possible transboundary impacts is regulated in Annex B, point 19[453]. There is thus no formal list of activities subjected to OVNS, which gives wide discretion to the project developer and the environmental authorities in identifying those activities. The result of such a regulation may be that harmful activities are not assessed, or that authorities are overloaded with small and low impact projects[454].

According to point 5.2 (2nd sentence) of DBN A.2.2-3-2014, the comprehensive impact assessment of planned activities must be carried out during the preparation of the feasibility study (Technical Economic Review) and must comply with the requirements of DBN A.2.2-1-2003 on EIA. The results of the EIA have to be justified and the EIA materials have to be presented in a special section of the feasibility study. After that, there is the project design stage and the construction stage.

2. OVNS materials

The assessment of environmental impacts (OVNS) is carried out by the project developer. The OVNS is a formal procedure regulated by the State Construction Standard (SCS) DBN A.2.2-1-2003[455]. Whereas the OVNS materials may be confidential, an 'Environmental Impact Statement' summarizing the OVNS materials has to be made available to the public[456] before the State Environmental Review decision is taken (Art. 15, 35 Law on Environmental Review)[457].

According to DBN A.2.2-1-2003, inter alia the impacts of the planned project on protected areas (point 2.25-2.29) and the marine environment (point 2.20) have to be evaluated.

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[452] Ukraine Sustainable Energy Lending Facility (USELF) „Strategic Environmental Review: Scoping Report" (January 2011) by BLACK & VEATCH, p. 26-27

[453] DBN A.2.2-3-2014: http://www.afo.com.ua/doc/DBN_A.2.2-3-2014.pdf

[454] United Nations Economic and Social Council, "General guidance on enhancing consistency between the Convention and environmental impact assessment within State ecological expertise in countries of Eastern Europe, the Caucasus and Central Asia", ECE/MP.EIA/2014/2 (20 March 2014): http://www.unece.org/fileadmin/DAM/env/documents/2014/EIA/MOP/ECE.MP.EIA.2014.2_e.pdf, p. 7

[455] http://ecotehprom.com/zakon/DBN2212003.doc

[456] *Cherp,* Aleh, "Independent review of Ukraine's legal, administrative and other measures to implement the provisions of the Convention", United Nations, Economic and Social Council: http://www.unece.org/fileadmin/DAM/env/documents/2009/eia/ic/ece.mp.eia.ic.2009.5.e.pdf, p. 11

[457] *Malygina,* Katerina, "Europeanizing Environmental Impact Assessment in Ukraine", ICPS, European Focus, #16, 2012, p. 6

Also, the following points have to be included in the assessment[458]:

- Evaluation of three alternative locations
- Environmental and sanitary impacts
- Technical measures to reduce impacts
- Description of infrastructure required
- Energy supply for the planned activity

The DBN A.2.2-1-2003 also sets forth provisions regarding public participation during the preparation of the OVNS (points 1.8–1.14). The OVNS documents may be amended to take the opinion of the public into account. This, however, is not an obligation[459].

b. SER

The SER is subsequently conducted by designated state authorities. SER is performed at the national, oblast (regional) and at the local level. For major projects, a confirmation of the SER decision of the Ministry of Ecology is required[460].

Twenty-two different types of activities have been identified as prone to causing major environmental damage by the Resolution of the Cabinet of Ministers No. 554/1995. For those activities, an SER was, before the reform, mandatory. Now, it is only mandatory if a project does not concern construction[461]. Except for cattle breeding (more than 5,000 animals/activity 17 of the Resolution), there is no size threshold under which an SER is not required. Wind farms are not included in the list. The Ministry of Ecology thus decides on a case-by-case basis whether or not an SER is needed. As a consequence of this regulation, about 6,000 SERs have been performed every year in the Ukraine, many times more than in most EU countries[462].

The list of documentation to be submitted for the state environmental review has been determined by the Resolution the Cabinet of Ministers No. 870/1995[463]. The decision on the project approval is mainly based on the information contained in those documents and the OVNS materials. The SER focuses on the evaluation of a proposed project's compliance with environmental legislation[464]. That's a difference to international EIA standards that aim at preventing any significant impact on the environment, and not just at compliance with existing regulations[465].

According to Art. 11 of the Law on Environmental Review, the SER authorities are obliged to carry out

[458] Economic Commission for Europe: Environmental Performance Reviews, Ukraine, Second Review, http://www.unece.org/fileadmin/DAM/env/epr/epr_studies/Ukraine%20II.pdf, p. 35
[459] *Aleksyeyeva,* Yelyzaveta: Statement by Environment-People-Law for the 40th meeting of the Aarhus Convention Compliance Committee, 2013, p. 3
[460] Economic Commission for Europe: Environmental Performance Reviews, Ukraine, Second Review, http://www.unece.org/fileadmin/DAM/env/epr/epr_studies/Ukraine%20II.pdf, p. 35
[461] Answers of the Ukraine to questions posed in letters from 23/06/2011 and 02/01/2011 by the Implementation Committee of the Espoo Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/ImplementationCommittee/eia.ic.s/eia.ic.s.1/Unofficial_translation.pdf, p. 3
[462] Economic Commission for Europe: Environmental Performance Reviews, Ukraine, Second Review, http://www.unece.org/fileadmin/DAM/env/epr/epr_studies/Ukraine%20II.pdf, p. 35
[463] http://ecozahist.com.ua/rus/page_15/
[464] Economic Commission for Europe: Environmental Performance Reviews, Ukraine, Second Review, http://www.unece.org/fileadmin/DAM/env/epr/epr_studies/Ukraine%20II.pdf, p. 35
[465] *Borysova,* Olena, "The educational dilemma of environmental security: hard science or the art of decision making?", in "Addressing Global Environmental Security Through Innovative Educational Curricula", NATO Science for Peace and Security Series, Springer 2008, p. 39

public hearings and open meetings. In the conclusion of the SER, the opinion of the public has to be taken into account (§19 of the procedure determined in the Order of the involvement of the public on issues concerning decisions that may impact the environment, approved by the Cabinet of Ministers of Ukraine on 29 June 2011 No. 771). The conclusion then has to be published (Art. 10 Law on Environmental Review/§25 of Order No. 771)[466]. Since public access to SER decisions was often restricted, a recent judgment ordered the Ministry of Ecology to publish more than 1,000 SER decisions on the internet[467].

The implementation of a project is only allowed after a positive SER decision has been taken (Art. 39 Law on Environmental Review). In case of a negative decision, the developer is allowed to ask for a revision. The SER decision is valid for three years. If the construction does not start within that time, the whole procedure has to be repeated[468].

New system

a. The Law 'On Regulation of Urban Development'

In 2011, the Law 'On Regulation of Urban Development' has been adopted and has introduced a simplified consent procedure for construction projects. Due to an intense pressure from the industrial lobby, the environmental control takes now place within the legal framework for construction, and not the framework for the protection of the environment anymore[469]. This, for many projects, means that even minimal EIA requirements are no longer in effect[470].

b. Projects subject to EIA

According to the new regulation, construction projects are divided into categories, according to their complexity. Only more complex projects are subject to a mandatory environmental assessment.

An EIA is mandatory if the following two criteria are met[471]:
1. The project falls under category IV or V, determined in Resolution No. 557 of 27 April 2011 (paragraphs 5 and 6). Category IV concerns projects that potentially endanger 300 people permanently or 500 people temporarily at the facility, 10,000 people within its vicinity or that potentially cause damages exceeding the amount of 15,000 minimal wages, the loss of a cultural heritage site of local importance or an infrastructure facility of regional importance. For category V, these thresholds are even higher[472].

[466] Answers of the Ukraine to questions posed in letters from 23/06/2011 and 02/01/2011 by the Implementation Committee of the Espoo Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/ImplementationCommittee/eia.ic.s/eia.ic.s.1/Unofficial_translation.pdf, p. 6, 7

[467] *Malygina,* Katerina, "Europeanizing Environmental Impact Assessment in Ukraine", ICPS, European Focus, #16, 2012, p. 6

[468] *Malygina,* Katerina, "Europeanizing Environmental Impact Assessment in Ukraine", ICPS, European Focus, #16, 2012, p. 4-5

[469] *Andrusevych,* Andriy, "Kickoff of Environmental Impact Assessment", Environmental Policy and Law Weekly, January1-23, 2013, p. 2

[470] Ecoclubrivne: "Environmental Impact Assessment – one more step towards Europe" (3 June 2014): http://ecoclubrivne.org/en/environmental-impact-assessment-one-more-step-towards-europe/

[471] *Aleksyeyeva,* Yelyzaveta: Statement by Environment-People-Law for the 40th meeting of the Aarhus Convention Compliance Committee, 2013, p. 3

[472] Answers of the Ukraine to questions posed in letters from 23/06/2011 and 02/01/2011 by the Implementation Committee of the Espoo Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/ImplementationCommittee/eia.ic.s/eia.ic.s.1/Unofficial_translation.pdf, p. 2

2. The project concerns an activity included in the list of environmentally dangerous activities (Resolution of the Cabinet of Ministers No. 554/1995). On 6 June 2011, the Cabinet of Ministers of the Ukraine by Resolution No. 630 has replaced a case-by-case decision by including all projects of Complexity Categories IV and V in para. 22 of the list (based on Art. 22 of the Urban Development Law)[473].

For projects of the category I-III (minor complexity), the project developer can simply declare that the planned project complies with the requirements of the law, and start construction immediately ('declarative compliance')[474].

c. Expertiza

The project documentation is submitted to an expert organization that has to meet the criteria determined by the Ministry of Regional Development, Construction and Housing. The developer can appoint the organization[475]. The experts analyze the quality of the project documentation and check if it complies with construction, sanitary, safety, environmental and other rules and standards (Expertiza of project documentation on construction). It shall include an expert from the field of ecology[476]. The Ministry of Ecology, however, does not take part in the procedure[477], other health and environmental authorities just take part in the certification of the experts[478]. The procedure is regulated by Resolution No. 560, adopted by the Cabinet of Ministers on 11 May 2011 on "Procedure for adoption of the construction projects and carrying out their expertise"[479].

d. Construction permit

On the basis of this Expertiza, a construction permit can be issued by the State Inspectorate on Architecture and Construction. If no permit is explicitly granted during a defined period, the permit shall be deemed granted. This regulation increases the risk of non-compliance with building standards, including standards of environmental safety[480].

A construction permit may, according to the law on 'Urban Development Activities', only be denied if the applicant doesn't submit the required documents, if the documents do not comply with the

[473] Ukraine Sustainable Energy Lending Facility (USELF) „Summary Report: USELF SER Stakeholder engagement and public consultation" (June 2012) by BLACK & VEATCH: http://www.uself.com.ua/fileadmin/uself-ser-en/1/Summary_Report_Stakeholder_Engagement_Public_Consultation_ENG.PDF, p. 18

[474] *Andrusevych,* Andriy, "Consequences of the entry into force of the Law on Regulating Urban Development for the obligation of Ukraine under the Espoo Convention", Resource & Analysis Center "Society and Environment", p. 3

[475] *Malygina,* Katerina, "Europeanizing Environmental Impact Assessment in Ukraine", ICPS, European Focus, #16, 2012, p. 5

[476] *Andrusevych,* Andriy, "Consequences of the entry into force of the Law on Regulating Urban Development for the obligation of Ukraine under the Espoo Convention", Resource & Analysis Center "Society and Environment", p. 3

[477] *Aleksyeyeva,* Yelyzaveta: Statement by Environment-People-Law for the 40th meeting of the Aarhus Convention Compliance Committee, 2013, p. 3

[478] Answers of the Ukraine to questions posed in letters from 23/06/2011 and 02/01/2011 by the Implementation Committee of the Espoo Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/ImplementationCommittee/eia.ic.s/eia.ic.s.1/Unofficial_translation.pdf, p. 4

[479] *Martinenko,* Olexander, *Rabczak,* Tetyana, "Ukraine: List Of Projects Subject To Mandatory EIA Amended", mondaq, 22 June 2011: http://www.mondaq.com/x/136178/Environmental+Law/Ukraine+List+Of+Projects+Subject+To+Mandatory+EIA+Amended

[480] *Malygina,* Katerina, "Europeanizing Environmental Impact Assessment in Ukraine", ICPS, European Focus, #16, 2012, p. 5-6

regulations or if the information contained in the document is inaccurate (Art. 37 IV). This exhaustive list of grounds for refusal does not provide the administration with the flexibility necessary to balance the interests of the investor with an adequate protection of the environment. It is also questionable whether this procedure complies with Art. 6 VIII of the Aarhus Convention ("Each Party shall ensure that in the decision due account is taken of the outcome of the public participation")[481].

Public participation[482]

a. Weaknesses of the new rules on public participation

The EIA, and also public participation, takes place during the preparation of the feasibility study, according to DBN A.2.2-3-2014. The project developer at this early stage of the process can only provide very general information on the project and, notably, there is no completed EIA report yet. So the public cannot influence the project details or properly evaluate its potential impacts on the environment[483]. And, since the new system of review of project documentation (Expertiza) and issuance of a construction permit does not include a single provision on public participation, there is no further chance for the public to exert influence over the final decision on the project[484].

Moreover, the reliance on the project developer (Paragraph 1.6 DBN A.2.2-1-2003) in providing for public participation during the OVNS stage is not inline with the Espoo Convention, in which it is implicitly required by the provisions of Art. 3 VIII[485] and Art. 4 II[486] that comments are submitted to the competent public authority[487]. The project developer is usually not interested in effective public participation. Thus, public participation in the Ukraine has been called a 'mere formality'[488].

b. Public environmental review

Public Environmental Review may be carried any type or development at the initiative of non-governmental organizations. In reality, however, this procedure is rarely performed due to a lack of

[481] *Tretiak,* T, "The Problems of the Environmental Impact Assessment in Ukraine and the Ways to Solve Them": http://lcslaw.knu.ua/index.php/item/155-the-problems-of-the-environmental-impact-assessment-in-ukraine-and-the-ways-to-solve-them-t-tretiak

[482] Ukraine Sustainable Energy Lending Facility (USELF) „Strategic Environmental Review: Scoping Report" (January 2011) by BLACK & VEATCH, p. 26-27

[483] *Tretiak,* T, "The Problems of the Environmental Impact Assessment in Ukraine and the Ways to Solve Them": http://lcslaw.knu.ua/index.php/item/155-the-problems-of-the-environmental-impact-assessment-in-ukraine-and-the-ways-to-solve-them-t-tretiak

[484] *Aleksyeyeva,* Yelyzaveta: Statement by Environment-People-Law for the 40th meeting of the Aarhus Convention Compliance Committee, 2013, p. 4

[485] "The concerned Parties shall ensure that the public of the affected Party in the areas likely to be affected be informed of, and be provided with possibilities for making comments or objections on, the proposed activity, and for the transmittal of these comments or objections to the competent authority of the Party of origin, either directly to this authority or, where appropriate, through the Party of origin."

[486] "The Party of origin shall furnish the affected Party, as appropriate through a joint body where one exists, with the environmental impact assessment documentation. The concerned Parties shall arrange for distribution of the documentation to the authorities and the public of the affected Party in the areas likely to be affected and for the submission of comments to the competent authority of the Party of origin, either directly to this authority or, where appropriate, through the Party of origin within a reasonable time before the final decision is taken on the proposed activity."

[487] United Nations Economic and Social Council, "General guidance on enhancing consistency between the Convention and environmental impact assessment within State ecological expertise in countries of Eastern Europe, the Caucasus and Central Asia", ECE/MP.EIA/2014/2 (20 March 2014): http://www.unece.org/fileadmin/DAM/env/documents/2014/EIA/MOP/ECE.MP.EIA.2014.2_e.pdf, p. 7

[488] "Assessment of the Environmental Component of the EU-Ukraine Bilateral Co-operation", Resource and Analysis Center "Society and Environment", Lviv 2013: http://eap-csf.eu/assets/files/Documents/Monito_eng.pdf, p. 19

political will, bureaucratic burdens and high costs. The conclusions of the Review are, moreover, not binding (Art. 12 of the Law on Environmental Review No. 45/95-VR) and, in practice, the Review is often conducted only pro forma[489].

c. Non-compliance with the Aarhus Convention

The Ukraine has to "address the lack of clarity with regard to public participation requirements in environmental impact assessment and environmental decision-making procedures for projects, such as time frames and modalities of a public consultation process, requirements to take its outcome into account and obligations with regard to making information available in the context of article 6, in order to ensure a clear, transparent and consistent framework for the implementation of the Convention (article 3, paragraph 1)" (point 5 (c) of Decision V/9m). In 2014, the Compliance Committee stated for the fourth time that the Ukraine ignores recommendations and, since a caution is already in place, at the next meeting of the Parties to the Convention, a decision whether to suspend the special rights and privileges accorded to Ukraine under the Convention is going to be taken[490]. The Meeting of Parties was supposed to consider this issue at the current session, but recognizing and supporting the democratic processes that took place in Ukraine at the end of 2013 and beginning 2014, the Parties to the Convention decided to postpone deciding the issue[491].

Progress

a. Recent drafts

Various draft laws have been registered in Parliament to remedy the weaknesses of the EIA procedure and to align Ukrainian legislation with international standards, most recently, on 30 May 2014, a draft Law "On assessing the impact on the environment" under registration No. 4972. The draft law introduces a "European" EIA procedure and therefore contributes to fulfill Ukraine's obligations under the terms of the Association agreement[492]. Currently, the Ministry refines the text that will then be submitted to the Compliance Committee of the Aarhus Convention and the Compliance Committee of the Espoo Convention for expert's comments. Public hearings on the draft will be initiated on 15 March 2015[493].

b. Harmonization with EU legislation

Ukraine still falls short of compliance with the provisions of the Environmental Impact Assessment Directive. In particular, its EIA system fails to cover all the activities listed in Annexes I and II of the Directive and to define the requirements for the scope of information covered by an environmental impact assessment. Furthermore, no effective rules exist on public participation[494].

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[489] *Palekhov,* Dmytro, "Potential for Strategic Environmental Assessment (SEA) as a Regional Planning Instrument in Ukraine", Verlag Dr. Kovač, Hamburg 2014, p. 105, 147

[490] Decision V/9m on compliance by Ukraine with its obligations under the Convention, Adopted by the Meeting of Parties to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters at its fifth session, 30 June / 1 July: http://www.unece.org/fileadmin/DAM/env/pp/compliance/MoP5decisions/V.9m_Ukraine/Decision_V9m.pdf

[491] Environment People Law, "The meeting of the Parties to the Aarhus Convention: how Maydan saved Ukraine and about the draft law on environmental impact assessment" (1 July 2014): http://epl.org.ua/en/news/annotation/browse/1/backPid/393/article/6907/

[492] Ecoclubrivne: "Environmental Impact Assessment – one more step towards Europe" (3 June 2014): http://ecoclubrivne.org/en/environmental-impact-assessment-one-more-step-towards-europe/

[493] Complementary support to the Ministry of ecology and natural resources of Ukraine for the Sector budget support implementation, February highlights: http://www.sbs-envir.org/index.php/en/news/news-briefings.html

[494] Energy Community, Implementation / Ukraine Environment / State of Compliance: https://www.energy-community.org/portal/page/portal/ENC_HOME/AREAS_OF_WORK/Implementation/Ukraine/Environment

According to the Association Agreement between the EU and its Member States and the Ukraine[495] of 29 May 2014, the provisions of Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment have to be implemented (Annex XXX to Chapter 6 of the Association Agreement), mostly within the next 2–3 years.

For projects falling under the Treaty establishing the Energy Community, thus the construction and operation of new energy generating plants (Art. 15 Treaty Establishing the Energy Community), all the Directive's provisions were to be implemented as acquis communautaire (Art. 16 Treaty Establishing the Energy Community) by 1 January 2013, as indicated in the Protocol concerning the Accession of Ukraine to this Treaty (Art. 2).

Example of the Environmental and Social Impact Assessment (ESIA) for the LCC 'West-Crimean WES' Windplant[496]

The LLC "West-Crimean WES" planned to build a 250 MW wind farm in the Chernomorske district, Crimea.

The company published a non-technical summary of the project, including:

- A project description;
- The regulatory framework;
- An assessment of the environmental and socio-economic environment;
- A description of alternative options;
- A description of possibilities to mitigate impacts.

Also, a stakeholder engagement plan has been developed and published, ensuring compliance with international and national public consultation requirements and including:

- Five stages of public consultation and disclosure;
- A stakeholder analysis;
- A plan for future stakeholder engagement;
- A grievance mechanism;
- Monitoring and reporting requirements.

Finally, an Environmental and Social Action Plan (ESAP) "sets out the environmental and social impact of the project and associated measures to avoid, or where avoidance is not possible, mitigate the adverse on environment and communities. The ESAP also addresses environmental benefits, legislative requirements, responsibilities, timetable and evaluation criteria for the successful implementation of these measures" (p. 5).

The high standard of the environmental assessment of this project, however, might be due to the fact that it is supported by the European Bank for Reconstruction and Development (EBRD) that requires compliance not only with Ukrainian law, but also with EU legislation.

EIA in a transboundary context

In March 1999, the Ukraine adopted the law No. 534-XIV "On ratification of the Convention on Environmental Impact Assessment in a Transboundary Context" (Espoo Convention). According to

[495] Association Agreement between the European Union and its Member States, of the one part, and Ukraine, of the other part, Official Journal of the European Union L161, Volume 57, 29 May 2014, p. 3: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2014:161:FULL&from=EN

[496] LLC West-Crimean WES: http://windplant.crimea.ua/2012/11/llc-west-crimean-wes-started-the-final-stage-of-the-assessment-of-social-and-environmental-impacts-of-the-project-of-wind-power-plant-with-the-capacity-of-250-mw-in-chornomorske-district-of-crimea/

Art. 9 of the Constitution of the Ukraine, ratified international agreements constitute a part of the national legal order. However, Ukraine still does not give full practical effect to the agreement by developing adequate legislative, regulatory and other measures to establish and maintain a clear, transparent and consistent framework for EIA in a transboundary context[497]. Such an EIA is notably required for wind farms (Art. 2 I in conjunction with Appendix 1, Point 22 of the Espoo Convention). The provision of the Constitution of Ukraine to directly apply international agreements was considered by the Implementation Committee as being insufficient to ensure the implementation of the Espoo Convention without more detailed provisions in the legislation[498].

Recently, the list of projects and activities that are subject to a mandatory environmental impact assessment procedure had been amended and includes now projects with a potential impact across borders [499]. But, because of the particularities of the Ukrainian EIA procedure, it is difficult to integrate the procedural steps required by the Espoo Convention. For example, it is the responsibility of the project developer to identify potential transboundary environmental impacts[500], but they are under no obligation to notify the potentially affected Party or to inform public authorities about the likelihood of a significant adverse transboundary impact[501]. Public authorities get involved quite late, only after the OVNS documentation has been prepared and after the public has been consulted. This makes it impossible for public authorities to fulfil the obligation under Art 3 I of the Convention to notify potentially affected Parties "no later than when informing its own public about the proposed activity". Moreover, the competent authority for performing the tasks determined in the Espoo Convention is not clearly defined.

It is also unclear at what stage of the procedure the 'final decision' within the meaning of the Convention's text is taken. A possible interpretation is that the final decision is taken at the stage of the SER decision, when the environmental impacts are to be comprehensively assessed. Another possible interpretation would be that the final decision is taken together with the decision on the construction permit, since only after this stage the project developer is allowed to start construction.

The Bystroe Canal Case that began about a decade ago is a good illustration of the noncompliance of the Ukraine with the Convention. This case between Romania (the affected Party) and Ukraine (the Party of origin) concerns the project "The Danube-Black Sea Deep-Water Navigation Canal in the Ukrainian Sector of the Danube Delta". This navigation canal connects the Danube with the Black Sea and needed to be renovated in order to be reopened[502]. The Ukraine submitted the EIA documents to Romania only after the final decision on the project had been taken and when works had already

[497] *Rachynska,* Victoria, "Selected Problems of Implementation of the Espoo Convention in Ukraine (on the Example of Bystroe Canal Case)", JURISPRUDENCE 2014, 21(2), p. 399–420, p. 400

[498] United Nations Economic and Social Council, Report to the Parties to the Convention on Environmental Impact Assessment in a Transboundary Context on its fourth Meeting (28 July 2008), Decision IV/2, Annex II, para. 28: http://www.unece.org/fileadmin/DAM/env/documents/2008/eia/ece.mp.eia.10.e.pdf

[499] *Andrusevych,* Andriy, "Kickoff of Environmental Impact Assessment", Environmental Policy and Law Weekly, January1-23, 2013, p. 1

[500] Answers of the Ukraine to questions posed in letters from 23/06/2011 and 02/01/2011 by the Implementation Committee of the Espoo Convention: http://www.unece.org/fileadmin/DAM/env/eia/documents/ImplementationCommittee/eia.ic.s/eia.ic.s.1/Unofficial_translation.pdf, p. 9

[501] United Nations Economic and Social Council, "General guidance on enhancing consistency between the Convention and environmental impact assessment within State ecological expertise in countries of Eastern Europe, the Caucasus and Central Asia", ECE/MP.EIA/2014/2 (20 March 2014): http://www.unece.org/fileadmin/DAM/env/documents/2014/EIA/MOP/ECE.MP.EIA.2014.2_e.pdf, p. 9

[502] *Rachynska,* Victoria, "Selected Problems of Implementation of the Espoo Convention in Ukraine (on the Example of Bystroe Canal Case)", JURISPRUDENCE 2014, 21(2), p. 399–420, p. 404

started. The Espoo Implementation Committee for that reason stated that the Ukraine did not ensure a proper involvement of the Romanian authorities and the Romanian public and even issued a caution[503]. By decision VI/2, adopted by the Meeting of the Parties to the Convention on Environmental Impact Assessment in a Transboundary Context at its sixth session, the Ukraine had been requested "to adopt the relevant draft legislation and to bring the Project into full compliance with the Convention by the end of 2015" (II A. Point 24)[504].

SEA[505]

The current system in the Ukraine does not provide for an SEA, even though most regulatory acts are subject to publication and some kind of public review[506].

Already in 2003, the Ukraine has signed the SEA Protocol to the Espoo Convention, but the development of a national SEA procedure has been delayed for many years. The "Concept of the national environmental policy of Ukraine for the time period up to 2020", adopted by the Cabinet of Ministers Order No. 880-p in 2007, has firstly set targets for the implementation of an SEA for regional, sectoral and spatial planning and for the management of natural resources[507]. This document, however, has never been formally adopted by the Parliament[508].

Now, the Ukraine is preparing the ratification of the SEA Protocol. Besides, the EU SEA Directive belongs to the EU acquis whose requirements, according to the Ukraine–EU Association Agreement, are to be incorporated into Ukrainian legislation as soon as possible[509]. Thus, recently, the Ministry of Ecology has developed a draft law of SEA, also in a transboundary context[510], and is now conducting consultations on that draft[511].

In the area of renewable energy, an SEA has already been conducted, following international standards. In co-operation with the national authorities in the Ukraine, the Ukraine Sustainable Energy Lending Facility (USELF) has commissioned an SER to "lay out a path to streamline the environmental review process for renewable energy developers by focusing the scope and providing

[503] *Rachynska,* Victoria, "Selected Problems of Implementation of the Espoo Convention in Ukraine (on the Example of Bystroe Canal Case)", JURISPRUDENCE 2014, 21(2), p. 399–420, p. 407
[504] Decision IV/2: http://www.unece.org/fileadmin/DAM/env/eia/meetings/Decision_VI.2.pdf
[505] Ukraine Sustainable Energy Lending Facility (USELF) „Strategic Environmental Review: Scoping Report" (January 2011) by BLACK & VEATCH, p. 27
[506] *Tretyak,* Taras, "Legal framework for the implementation of the UNECE Protocol on SEA in Ukraine", National level training workshop on strategic environmental assessment, Kiev 2013: http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/Training_Ukraine_01-04_10_13/Tretyak_sea_30.09.2013.pdf
[507] *Palekhov,* Dmytro, *Schmidt,* Michael, "Requirements and Issues with Implementing SEA as a Sustainable Development Instrument in Ukraine", in "Implementing Environmental and Resource Management", Springer-Verlag Berlin Heidelberg 2011, p. 139
[508] *Palekhov,* Dmytro, "Potential for Strategic Environmental Assessment (SEA) as a Regional Planning Instrument in Ukraine", Verlag Dr. Kovač, Hamburg 2014, p. 83
[509] Updated version of the EU-Ukraine Association Agenda (24 June 2013), p. 19
[510] *Tarasenko,* Alexander, "Presentation of the Draft Law on Environmental Impact Assessment, Ukraine", National level training workshop on strategic environmental assessment, Kiev 2013: http://www.unece.org/fileadmin/DAM/env/eia/documents/EaP_GREEN/Training_Ukraine_01-04_10_13/Tarasenko_Draft_SEA_Legislation_UKraine.pdf
[511] Complementary support to the Ministry of ecology and natural resources of Ukraine for the Sector budget support implementation, February highlights: http://www.sbs-envir.org/index.php/en/news/news-briefings.html

relevant guidance for later environmental reviews of specific renewable energy projects within Ukraine"[512].

In the SER, areas with good potential for renewable energy development have been identified, a Stakeholder Engagement Plan has been developed and, at the next stage, the likely significant effects of each renewable energy scenario on the environment have been analyzed and mitigation measures developed. Even though OWFs have not been included in the SER, the review provides a good example for a comprehensive strategic assessment for renewable energy development. Further detailed assessment (e.g. EIA) is, of course, required for each project to identify project-specific issues[513].

Recommendations[514]

- Provide for a screening and a scoping stage in the procedure
    - A structural obstacle in the Ukrainian EIA system is that it envisages a common procedure for a very wide range of activities, which makes it difficult to pool forces to assess environmentally significant projects[515]. Also, the required content of the OVNS documents, determining the scope of the assessment, is not differentiated with regard to the particular features of a project, in particular the size and location of the project[516].
- Provide for public participation and real influence in the EIA process
    - Public participation takes place at a very early stage, when comprehensive information is not yet available, or it does not take place at all for certain projects. Also, often, no due account is taken of the opinion of the public.
- Increase public awareness and train EIA experts
    - A strong public control is essential for a well-working EIA system, thus the public needs to assign priority to the protection of the environment and a sustainable economic development. Also, the improvement of knowledge on EIA concepts of the competent authorities would significantly contribute to the implementation of a clear and transparent EIA procedure.
- Bring the national legislation in line with the requirements of the Energy Community, thus also with the legislation of the European Union, the Aarhus Convention and the Espoo Convention[517]
    - The EU Directive, the Espoo and Aarhus Conventions are based on a Western EIA concept that has been developed within marked economies with a well-established control system for economic development. The Western concept is process oriented and the overall responsibility lies with the competent authority. In contrast, the

[512] Ukraine Sustainable Energy Lending Facility (USELF) „Strategic Environmental Review: Scoping Report" (January 2011) by BLACK & VEATCH, Document Overview

[513] Ukraine Sustainable Lending Facility (USELF) / Strategic Environmental Review: http://www.oecd.org/env/outreach/USELF-Ukraine.pdf, p. 12

[514] *Malygina,* Katerina, "Europeanizing Environmental Impact Assessment in Ukraine", ICPS, European Focus, #16, 2012, p. 7-8

[515] *Cherp,* Aleh, "Independent review of Ukraine's legal, administrative and other measures to implement the provisions of the Convention", United Nations, Economic and Social Council: http://www.unece.org/fileadmin/DAM/env/documents/2009/eia/ic/ece.mp.eia.ic.2009.5.e.pdf, p. 5

[516] United Nations Economic and Social Council, "General guidance on enhancing consistency between the Convention and environmental impact assessment within State ecological expertise in countries of Eastern Europe, the Caucasus and Central Asia", ECE/MP.EIA/2014/2 (20 March 2014): http://www.unece.org/fileadmin/DAM/env/documents/2014/EIA/MOP/ECE.MP.EIA.2014.2_e.pdf, p. 7

[517] „Ukraine and the Energy Community: State of Compliance", National Ecological Centre of Ukraine, Analytical paper, January 2014 (www.necu.org.ua), p. 3

OVNS/SER system has been developed within planned economies. It is outcome oriented and obligations are mainly put on the developer and on various authorities[518]. Consequently, it is difficult for the Ukraine to align its legislation with international standards[519]. To avoid further conflicts, a completely new law on EIA, following the EU model or an own model, should be developed or the existing system significantly amended. Also, the SEA Protocol to the Espoo Convention should be ratified and an SEA procedure should be adopted to ensure that the environmental compatibility of plans and programmes is evaluated at an early stage.

[518] *Jendrośka,* Jerzy, "Existing dilemmas regarding legislative reform of EIA and SEA schemes in countries with Environmental Expertiza and OVOS system", Seminar on Major legislative dilemmas for implementing the Espoo Convention and its Protocol on SEA in UNECE region and ways to address them in national legislation, Moscow (20 January 2015): http://www.unece.org/fileadmin/DAM/env/eia/meetings/2015/Jan_seminar_Moscow._Russia_EIA_and_SEA/Dilemmas_in__Expertiza_OVOS_systems.pdf, p. 3-4

[519] *Cherp,* Aleh, "Independent review of Ukraine's legal, administrative and other measures to implement the provisions of the Convention", United Nations, Economic and Social Council: http://www.unece.org/fileadmin/DAM/env/documents/2009/eia/ic/ece.mp.eia.ic.2009.5.e.pdf, p. 5

Chapter 3. OWFs and MPAs: Planning instruments and synergies in the Black Sea

3.1 Marine Spatial Planning (MSP) and the United Nations Convention on the Law of the Sea (UNCLOS)

There is no international convention that exclusively determines the legal requirements of spatial planning at sea. Some relevant regulations, however, can be found in UNCLOS. With the exception of Turkey, all states of the Black Sea area have signed and ratified UNCLOS.

Moreover, the Black Sea is completely divided between its riparian states, since it is quite small and all the riparian States have declared exclusive economic zones (EEZs). Thus, there are no areas that lie beyond national jurisdiction ('high seas').

3.1.1 Internal water

Art. 2(1) of UNCLOS states that the sovereignty of a coastal state covers its land territory and internal waters. UNCLOS does not limit the right of the coastal state to restrict entry into or transit of persons, ships and goods through its internal waters and ports (apart from an exceptional right of innocent passage conferred by Art. 8(2) of UNCLOS to ships of other States). The coastal state is thus free to set laws, to regulate any use, to use any resource and, therefore, to submit its internal waters to MSP.

3.1.2 Territorial sea

According to Art. 2(1) of UNCLOS, the sovereignty of the coastal state extends to its territorial sea (up to 12 nautical miles from the baseline). That sovereignty derives from the sovereignty over the land territory. Consequently, the coastal state can undertake spatial planning activities in that part of the sea.

Ships of all states, however, enjoy the right of innocent passage through the territorial sea. The limits are set by Art. 17 et seq. of UNCLOS that confers to the coastal state the right to regulate the passage, for example to ensure the safety of navigation, or to establish sea lanes and traffic separation schemes. Thus, UNCLOS explicitly regulates some elements of spatial planning.

3.1.3 Contiguous zone

Within a zone adjacent to the territorial sea whose outer limit may not exceed 24 nautical miles from the baseline, the coastal state that claims such a zone has limited crime prevention and enforcement powers for the purpose of customs, fiscal, immigration and health issues (Art. 33 of UNCLOS). Those rights play a minor role in MSP.

3.1.4 Exclusive Economic Zone

Beyond its territorial sea, a coastal state may claim an EEZ that extends up to 200 nautical miles from the baseline. Here, the coastal state exercises sovereign rights only for the purposes of exploring and exploiting, conserving and managing the natural resources (Arts. 55, 56 and 57 of UNCLOS). UNCLOS furthermore subjects the exercise of these rights to various conditions, such as the respect of the right of any state to lay underwater pipelines and cables, and the freedom of navigation of other states' vessels.

Art. 56 (1) of UNCLOS does not expressly assign to the coastal state a sovereign right or jurisdiction to undertake planning activities in the EEZ. This, however, does not necessarily mean that MSP there is unlawful. Under Art. 60 (1) of UNCLOS, for example, the coastal state has the exclusive right to construct, to authorize and to regulate the construction, operation and use of artificial islands, installations and structures. It is left to the coastal state to determine if and how these rights are to be executed. Therefore, it seems to be justified to conclude that MSP is allowed to the extent to which the planning activities are directly linked to the sovereign rights and jurisdiction expressly assigned to the coastal state by Part V of UNCLOS.

However**,** in enclosed or semi-enclosed seas like the Black Sea, contracts between all riparian states could effectively regulate MSP measures that go beyond the scope of measures allowed by UNCLOS. Of course, then, only the contracting States are bound by the contract.

3.1.5 Continental shelf

The continental shelf is the natural prolongation of a coastal state's submarine territory to the outer edge of the continental margin, or to a distance of 200 miles (Art. 76 of UNCLOS). The sovereign rights of the coastal state here include the exploitation of living organisms belonging to sedentary species, drilling, tunnelling and the use of artificial islands, installations and structures. It follows that coastal states may also take the appropriate planning measures to regulate these activities.

3.1.6 High seas

The high seas are free for all states and reserved for peaceful purposes (Art. 88 of UNCLOS). States are only allowed to enforce spatial plans for land and sea areas that are under their jurisdiction. It follows that states cannot just make any area of the high seas subject to MSP, though they may regulate the activities of their own nationals, including vessels flying their flag.

3.2 A fresh impetus to MSP – EU instruments

3.2.1 Integrated Coastal Zone Management (ICZM) – Recommendation

The European Parliament and the Council adopted on 30 May 2002 a Recommendation on Integrated Coastal Zone Management (2002/413/EC) that outlines the steps that the member states should take to promote ICZM along their shorelines and defines the principles of sound coastal planning and management. Those principles include the need to base planning on in-depth knowledge, to take a long-term and cross-sectoral perspective, to involve stakeholders and to take into account both the terrestrial and the marine component of the coastal zone.

3.2.2 Maritime Spatial Planning – Directive

Is an MSP-Directive the most effective tool to implement MSP in the EU?

A detailed directive or regulation reduces the possibilities of the Member States to use already existing processes and could thereby lead to higher administrative costs. A more 'framework-type' directive, however, could guarantee predictability, stability and transparency in the MSP process and, at the same time, provide flexibility by setting general obligations only and by allowing the member states to develop their own national policies.

The content of the *Directive* 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for *maritime spatial planning:*

Approach

"In order to promote the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources, maritime spatial planning should apply an ecosystem-based approach as referred to in Article 1(3) of Directive 2008/56/EC with the aim of ensuring that the collective pressure of all activities is kept within levels compatible with the achievement of good environmental status and that the capacity of marine ecosystems to respond to human-induced changes is not compromised, while contributing to the sustainable use of marine goods and services by present and future generations…" (preamble/item 14).

Objectives

"When establishing and implementing maritime spatial planning, Member States shall consider economic, social and environmental aspects to support sustainable development and growth in the maritime sector, applying an ecosystem-based approach, and to promote the coexistence of relevant activities and uses" (Art. 5 I).

"Through their maritime spatial plans, Member States shall aim to contribute to the sustainable development of energy sectors at sea, of maritime transport, and of the fisheries and aquaculture sectors, and to the preservation, protection and improvement of the environment, including resilience to climate change impacts. In addition, Member States may pursue other objectives such as the promotion of sustainable tourism and the sustainable extraction of raw materials" (Art. 5 II).

Minimum requirements

The proposal sets out common minimum requirements for maritime spatial plans and integrated coastal management strategies of the Member States. Thus, Member States shall inter alia take into account environmental, economic and social aspects, as well as safety aspects, ensure the involvement of stakeholders and transboundary co-operation between Member States and promote co-operation with third countries (Art. 6).

As a specific minimum requirement, Member States shall set up maritime spatial plans which identify the spatial and temporal distribution of relevant existing and future activities and uses in their marine waters, including installations and infrastructures for the exploration, exploitation and extraction of oil, of gas and other energy resources, of minerals and aggregates, and for the production of energy from renewable sources and nature and species conservation sites and protected areas (Art. 7).

The proposed Directive has to be transposed into national law by the EU Member States until September 2016.

Evaluation of the progress at regional level

The Bucharest Convention and the Commission on the Protection of the Black Sea Against Pollution

The Convention on the Protection of the Black Sea against Pollution (also referred to as 'The Bucharest Convention') was signed in Bucharest in April 1992, and ratified by all legislative assemblies of the six Black Sea riparian states in the beginning of 1994.

Acting on the mandate of the Black Sea countries, the Commission on the Protection of the Black Sea Against Pollution (the Black Sea Commission) implements the provisions of the Convention, its Protocols and the Black Sea Strategic Action Plan with the support of its Permanent Secretariat located in Istanbul, Turkey.

The Convention is supported by four protocols:
1. The Protocol on the Protection of the Black Sea Marine Environment against Pollution from Land Based Sources (LBS Protocol)
2. The Protocol on Co-operation in combating Pollution of the Black Sea Marine Environment by Oil and Other Harmful Substances (Emergency Protocol)
3. The Protocol on the Protection of the Marine Environment against Pollution by Dumping
4. The Black Sea Biodiversity and Landscape Conservation Protocol (CBD Protocol)

The first efforts towards ICZM and MSP

Activity Centre ICZM / Advisory Group ICZM

A Regional Activity Centre on Development of Common Methodologies for Integrated Coastal Zone Management (AC ICZM) was established in 1993 in Krasnodar (Russia). There is also an Advisory Group ICZM.

Protocols

The Black Sea Biodiversity and Landscape Conservation Protocol (2002)

Particularly relevant to ICZM is Art. 7 that says that "the Contracting Parties shall encourage introduction of intersectoral interaction on regional and national levels through the introduction of the principles and development of legal instrument of integrated coastal zone management seeking the ways for sustainable use of natural resources and promotion of environmentally friendly human activities in the coastal zone."

The Protocol on the Protection of the Marine Environment of the Black Sea from Land-Based Sources and Activities (2009) (Entry into force pending)

To achieve the purpose of the Protocol, the Contracting Parties "shall, in particular: endeavour to apply the integrated management of coastal zones and watersheds" (Art. 4 (2) f)).

'Soft Law' Instruments

Odessa Declaration (1993)

In the Odessa Declaration of 1993 (Ministerial Declaration on the Protection of the Black Sea), the Ministers responsible for the protection of the marine environment of the Black Sea coastal states decided under point 15 "to elaborate and implement national coastal zone management policies, including legislative measures and economic instruments, in order to ensure the sustainable development in the spirit of Agenda 21".

Sofia Declaration (2009)

In the Sofia Declaration of the Ministers of Environment of the Contracting Parties to the Convention on the Protection of the Black Sea Against Pollution on Strengthening the Co-operation for the Rehabilitation of the Black Sea Environment, the Ministers have, under point 9, agreed to "incorporate up-to-date environmental management approaches, practices and technologies, with particular attention to integrated coastal zone management, introduction of green technologies, sustainable human development and ecosystem based management of human activities".

Strategic Action Plan for the Protection and Rehabilitation of the Black Sea (1996)

"In order to ensure proper management of the coastal zone, co-ordinated integrated coastal zone management strategies shall be developed for the Black Sea region" (point III C of the BSSAP).

Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea (2009)

Key environmental management approaches are listed under 3.1:

- ICZM;
- The Ecosystem Approach; and
- Integrated River Basin Management (IRBM).

Furthermore, the SAP determines certain Ecosystem Quality Objectives (EcoQO). Each EcoQO is assigned a number of short-, mid- and/or long-term management targets to address the main environmental problems. EcoQO 2b is, for example, to conserve coastal and marine habitats and landscapes and under clause 3.3 it specifies that one corresponding overall management target is "to further recognise and implement integrated coastal zone management principles" (point 15).

Conclusion

The currently existing legal framework for ICZM under the Bucharest Convention system, including binding and non-binding instruments, shows that the importance of ICZM has been more and more recognized. However, it still seems to be a piecemeal and unsystematic approach to the concept. The question is thus if the time has come to think about a comprehensive regional instrument on ICZM.

An ICZM/MSP Protocol for the Black Sea – the logical next step?

The Black Sea Commission plans to initiate consultations in order to develop an ICZM Protocol for the Black Sea region. MSP is planned to be introduced in close integration with ICZM (Black Sea Outlook, Odessa 2011).

The example of the Mediterranean Sea

The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) came into force 12 February 1978. The European Community as well as all the EU Mediterranean Member States are Contracting Parties to the Convention. In the framework of this convention, a draft protocol on ICZM has been prepared, and, after a lengthy negotiation process, adopted on 21 January 2008. The protocol aims to minimize the impact of economic activities on the environment and to guarantee a sustainable use of resources (Art. 9), to protect coastal ecosystems, landscapes, islands and cultural heritage (Art. 10-13), to ensure participation and to raise awareness. In order to ensure that those measures are consistently fulfilled, the text requires that they are made part of a broader planning system. Art 18 (1) says that "each Party shall further strengthen or formulate a national strategy for integrated coastal zone management and coastal implementation plans and programmes…".

Since it has, in contrast to the ICZM Recommendation of the EU, binding power, the protocol significantly advances the ICZM process. However, even if the protocol is binding, some of its provisions are rather recommendations than strict obligations.

Benefits of an ICZM Protocol

A legally binding ICZM protocol can help to fill the gaps in the existing national legal frameworks. But the biggest advantage of an ICZM protocol lies in its legally binding nature. States can thus be obligated by a protocol to undertake certain measures.

And, considering the new EU Directive on MSP, the problems that will result from different stages of development ("two speeds") in the Black Sea countries should be taken into account. An ICZM Protocol could help to harmonise the national regulatory regimes in the EU Member States and the other Black Sea countries.

Disadvantages of an ICZM Protocol

The legally binding nature of a protocol can also be seen as a disadvantage, especially if there is a need for a fast and efficient response to a pressing problem. Until a protocol enters into force, there is usually a lengthy process of drafting and negotiating the text. As a consequence, there is often a regulatory vacuum for a long period of time.

Conclusion with regard to the Black Sea region

The Black Sea Commission doesn't yet seem to be organised effectively enough or adequately staffed and funded to draft and implement an additional protocol. Therefore, the "Feasibility Study for the Black Sea ICZM Instrument" of 2007 has favoured a two-step approach. As a first step, it recommends a combination of 'soft law' instruments, of guidelines and an Action Plan. Depending on the success of those instruments, it recommends the adoption of a binding protocol as a second step.

For a detailed analysis on MSP for all 6 countries bordering the Black Sea, please see Deliverable 6.3.