ASSESSING THE IMPACT ON CLIMATIC FACTORS IN SEA

Practical considerations

Guidance

Justice and Environment 2020

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Introduction

The comparative study on Strategic Environmental Assessments and Climate Change "Assessing the Impacts on Climatic Factors"[1] carried out by Justice & Environment has shown that environmental assessment of effects on climate is still a very abstract topic for all participants in the Strategic Environmental Assessment (SEA)[2]. Hence, the issue cannot be addressed methodologically like other assessment contents. Assessment of impacts on climatic factors is carried out in the context of uncertainty as well as politically and normatively set objectives. In particular, the critical phase is the screening phase, which is aiming at the assessment whether a plan requires an SEA or not. For "mainstreaming" climate change, which includes the integration of climate content into all policies, the SEA is an excellent tool for impact assessment of the highest strategic plans and programmes (PPs) on climate, both climate change mitigation and adaptation.

At this highest strategic level, it is important that such strategic aspirations are designed in a way that will yield effective contributions to achieving climate goals. That way, the coherence of the plan or programme (PP) will not be aligned only to the Paris Agreement or EU national climate goals, but also with other strategic goals related to climate change (e.g. Agenda 2030 goals and national strategies). Through SEA the compliance can be ensured.

This guidance is focussed on considerations throughout the SEA that are important for assessing the impact of PP at the highest strategic national level on climatic factors. The guidance is a complementary reading to the Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment[3] and as such is useful for decision-makers, experts for environmental reports, NGOs and the general public in public consultations.

[1] http://www.justiceandenvironment.org/fileadmin/user_upload/Publications/2020/SEA_on_Climate_JE_recommendations_2020_FINAL_web.pdf.
[2] Under the Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, OJ L197/2001, p 30.
[3] European Commission (2013), https://ec.europa.eu/environment/eia/pdf/SEA%20Guidance.pdf (13 November 2020).

Climate mainstreaming in Plans and Programmes

Mainstreaming or integrating climate change in planning and decision-making processes is a crucial tool to ensure climate change mitigation and adaptation into all policies. The European Parliament has declared climate and environmental emergency in 2019 (Resolution 2019/2930 – RSP). As a national and EU community level we have to ensure that all PP and consequently the legislation and budget are fully aligned with the objective of limiting global warming to below 1.5°C and with reaching climate-neutrality as soon as possible.

Urgent action before it is too late has to be the leading thought, by taking steps towards aligning the national strategic PP to meet this climate goal. It is necessary to do this in a participatory way, since "Enabling transformative change will require that all areas and levels of government work together and harness the ambition, creativity and power of citizens, businesses and communities" (*European Environmental Agency, The European environment – state and outlook 2020*).

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The process of climate mainstreaming encompasses:

- ✓ **integration and verification of the effects of/on? climate change** (climate proofing development is viewed through a climate change lens), which should be coherent at different levels of decision-making;
- ✓ **incorporating climate change considerations into existing and emerging governance policies, programmes and strategies**, rather than developing climate change mitigation and adaptation initiatives separately;
- ✓ the **inclusion of "climate" considerations into the objectives of the PP**, ensuring that the planned activities pay the necessary attention to sustainability and social ecosystem resilience increase according to the expected and future conditions;
- ✓ in order to effectively address and integrate these considerations into PP, decisions need to be made on the basis of the **best available knowledge** and the broad involvement of stakeholders, who also contribute practical knowledge (from the field);
- ✓ the PP shall **contribute to the achievement of climate change objectives** (general and sectoral), both at EU level and in the international treaties (Paris Agreement). International, EU, national and sectoral objectives must be clear to the developers. The PP must be clear in explanation, how the PP will contribute to achieving these in relation to the existing situation;
- ✓ addressing climate content in PP based primarily on the **precautionary principle and the principle of sustainable development** as a key guide to modern planning.

These should be kept in mind from the beginning of planning. Consideration of climate change must not be rejected or postpone the decision-making “for later”, but accepted as a fact. These circumstances are the long-term and cumulative effects, the complexity of cause-and-effect relationships, and uncertainty.

Special attention must be paid, both in planning and in the SEA process, to the important interconnectivity between climate change and the protection of biological diversity (biodiversity). Biodiversity loss is an equivalent global and threatening problem to climate change, and climate change is one of the five causes of biodiversity loss (in addition to habitat loss and fragmentation, overexploitation of natural resources, pollution, invasive alien species). Measures on climate change must not exacerbate the problem on the side of biodiversity. On the contrary, climate mitigation measures relying on nature based solutions are the best option.

State of the environment and climate goals

When we plan strategically and in the SEA process, we have to take into consideration two important areas: **What is the state of the environment and what are the climate goals?** A list of relevant sources that may be helpful in obtaining relevant information is published on the J&E website,[4] but users should add some new updated sources, since every year we have new information.

Data on the state of the environment in relation to climate change can be drawn from the international, EU and national level:

- ✓ At international level, the most important reports of the Intergovernmental Panel on Climate Change (IPCC) are the scientific support mechanisms for the implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and for national GHG transmission reports.
- ✓ At EU level, the European Environment Agency prepares an annual report on the state of the environment in Europe. States also report GHG emissions to both EU and UNFCCC bodies. They also prepare reports on the state of the environment at the national level.

The strategic PP is a bridge that outlines the path between the current, environmentally and climatically unsuitable situation (and its trends) and the goals needed to remedy the situation. Therefor we have to have clear picture about the climate goals and objectives set on international, UN and national general and sectoral level. **Declared climate goals** can be separate on international, EU and national level. Relevant document include the UNFCCC Paris Agreement,[5] the European 2050 Long-Term Strategy,[6] the EU Effort-Sharing-Regulation[7] and the National Energy and Climate Plans (NECPs).[8] A detailed description can be found in the Annex to this guidance.

Mainstreaming climate change in PP means as much GHG reduction as **climate adaptation**. Considering climate adaptation in the SEA procedure is still quite underdeveloped and demands more attention. This includes an assessment of the impact/contribution of the PP on better adaptation and resilience to climate change at a time of future implementation in more demanding environment. An EU Adaptation Strategy has been adopted and several adaptation programmes within the United Nations are ongoing. On national level adaptation strategies should be adopted.

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[4] http://www.justiceandenvironment.org/fileadmin/user_upload/Publications/2019/SEA_on_climate_useful_sources__1_.pdf.
[5] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement (13 November 2020).
[6] https://ec.europa.eu/clima/policies/strategies/2050_en (13 November 2020).
[7] Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013, OJ L 156/2018, p 26.
[8] https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en (13 November 2020).

Early phase of planning – climate change considerations

As the cause of climate change is mainly the ways of production and consumption, i.e. the actions of the whole society, most strategic plans influence these actions in one way or another, even if they are not plans from areas for which the directive sets mandatory SEA (namely PP for agriculture, forestry, fisheries , energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects). The study showed that the impact of the PP on the climatic factor needs to be considered at the highest strategic levels of planning as broad as possible, as it may also include planning for other areas relevant to climate change. It is not necessary that SEA is applied for each strategic PP, but it is essential that each PP takes climate change into account in terms of the necessary impact/contribution of the plan for reaching the climate change mitigation objectives and resilience to future changes due to climate change. Therefore, each plan needs to be considered thoroughly – each can be a channel towards climate neutrality. Given that the transition to a climate-neutral society requires comprehensive changes, mainly related to the way of production and consumption, only a few strategic PPs could be exempted from the SEA.

Therefore, it is the obligation of bodies that prepare strategic PPs at the beginning of the preparation to:

- carry out a SEA screening under national law as to whether SEA is required for the PP;
- even if the SEA does not need to be carried out, the planning process should involve environmental experts in order to guide the preparation of the plan in such a way that climate change, biodiversity and environmental protection are taken into account and the PP contribute to reach the set goals.

In the **screening phase** (Annex II of the SEA Directive), the assessment of the following is, among others, important:

- ✓ the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development;
- ✓ environmental problems relevant to the plan or programme;
- ✓ the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste management or water

Especially regarding the latter, it is important to follow or strive for climate neutrality, as the PP guide the entire functioning of society, i.e. from patterns that generate the problem of climate change to patterns that will inhibit climate change - reduce GHG. Strategic PPs are also the basic national framework for the implementation of EU legislation and international treaties and must ensure the achievement of the set goals.

The **key challenges** in environmental assessment regarding climate change are:

long-term and cumulative effects	→	trends with and without the proposed plan should be taken into account
complexity of cause-and-effect relationships	→	the impact of the PP on key climate trends and their carriers should be assessed; the "worst-case" and "best-case" scenarios should be used;
uncertainty – the "most difficult" circumstance of assessment	→	the limitations of existing knowledge should be taken into account, both in the screening and scoping phase; limited knowledge and relative certainty of predictions for the future should not be a reason to avoid assessment; the precautionary principle should be fully activated and flexible management and monitoring of measures should be included in the PP in order to respond appropriately to future changes.

In this context, in the planning process it is necessary to consider the question: To what extent can the PP contribute to the

a) realization of sustainable development,
b) implementation of environmental and climate policies and
c) achievement of adopted goals and fulfilment of environment/climate commitments?

Some additional questions can be of help, such as:

- *Does the PP address issues that are important for reducing GHG emissions or climate change adaptation?*
- *Does the PP contribute to reducing GHG emissions - direct effects?*
- *Does the PP contribute to the reduction of GHG emissions - indirect effects (affects in reducing the energy use, affects more efficient energy use, increases the use of energy from renewable sources)?*
- *Does the PP contribute to changes in mobility towards sustainable mobility (encourages walking, cycling, public transport, car sharing, etc.)?*
- *Does the PP contribute to food self-sufficiency, consumption of home-grown organic food, reduction of food waste?*
- *Does the PP encourage a change in consumption habits: the use of second-hand items, repairs, instead of buying new products, the use of recycled materials?*
- *Does the PP promote the use of recycled materials and the circular economy?*
- *Does the PP promote waste reduction measures, especially plastic ones?*

- *Will the PP contribute to better adaptation to the climate change (increasing the resilience of ecosystems to climate change)?*
- *Does the PP contribute to the achievement of climate goals in a way that does not endanger biodiversity or rather contributes to biodiversity?*
- *Does climate change have a favourable or unfavourable effect on the plan, or can it be directly or indirectly vulnerable to climate change?*
- *Can climate change affect elements of the environment that the plan will potentially affect?*

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If the PP can contribute to the achievement of climate goals, then it should be subject to the SEA process in order to optimize its climate and environmental impact.

Each of the above questions also explains how the plan will contribute to climate change objective. It often happens that the PP is too generic, in a narrative form, more as a vision or roadmap instead to be actual strategy. In these cases it is hard to answer those questions. Therefore, the task of the drafters of the strategic plan is to clearly define the goals and objectives, the ways and actions to achieve them and measuring the progress.

Impact assessment on climatic factors

In particular, with regard to the impact of the PP on climatic factors, it is essential that the SEA assess the PP in the way to ensure they will make a sufficient contribution to achieving the climate goals. Only positive impact of the PP on climate is not sufficient, the criterion for assessing must be the necessary impact on climate change mitigation and adaptation of the PP in order to achieve the climate goals. **If the strategic PPs are not ambitious enough, it is not possible to expect the climate goals to be achieved at a lower, implementation level.** We need to follow this imperative in the context of the SEA, as we live in extreme environmental and climatic conditions in which it cannot be acceptable to generate further negative impacts on climate factors and biodiversity.

In addition, it is crucial to **assess the impact of the PP on reducing or increasing the impacts (consequences) of climate change on other spatial activities** and the impact of climate change on the PP. All with the utmost consideration for the protection of biodiversity and, of course, other parts of the environment.

Evaluating these impacts is not an easy task. It requires a broad knowledge of strategic planning, the state of the environment, climate goals and documents, and other strategic plans. This work needs to be approached by a team effort with an in-depth analysis in the context of an individual strategic PP, its purpose and goals. It is necessary to detach focus from searching only the parts of PP that are basis for future projects, and shift the view on comprehensive assessment in the view of the changes in society and the environment that the PP wants to develop.

SCOPING PHASE

In this phase, the goals of the plan are selected, which parts of the plan are likely to have a significant impact on which parts of the environment and in terms of climate, and also which ones are likely to be (environmental) climate goals to be considered. This is evaluated on the basis of the knowledge of the state of the environment in regards to climate change, the trend of these changes and in the context of current climate policies and objectives. GHG emissions are the main, but not the only concern.

In defining environmental-climate goals, it makes sense to consider climate goals and sub-goals independently, not only within other goals. The environmental objective can thus be “climate change mitigation and adaptation”, which should have several sub-objectives, such as: greater energy efficiency, higher share of renewable energy sources in final use, lower energy consumption, increased mobility while reducing energy use, significant carbon sinks, increased resilience and adaptability as well as reducing exposure to the effects of climate change. However, other sectoral climate targets (in the fields of agriculture, waste management, widespread use) may also be included.

Criteria for evaluating the impacts of the PP need to be developed ambitiously and with special attention for the context of climate change. An environmental report that sets the criteria for evaluating the effects on climate factors too low will miss its purpose. For example, even if they are not yet normatively defined, it is necessary to take into account the more ambitious goals that are currently being negotiated (politically set) in the EU. The setting of criteria for climate change is a key part of the SEA process, which influences the most optimal integration of climate change into the plan. The criteria for the highest assessment of the acceptability of the PP's impacts should be based on exceeding the politically set climate targets in each area. According to data and scientific projections it is obvious that politically set climate goals so far are lower than the goals necessary to stop global warming at 1.5°C compared to pre-industrial times.

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EVALUATING THE IMPACT IN THE ENVIRONMENTAL REPORT

If the SEA procedure is started at the earliest stage of strategic planning, a principle of sustainable development will be best integrated into the PP and it will optimize its potential in this direction towards climate/environmental goals. Planning should be approached in an integrated, ecosystemic way, taking into account the constraints and thresholds. In particular, due to climate change (and biodiversity protection), effective flexible

management/implementation must be incorporated into the PP. In doing so, the SEA process helps to design a plan based on the following considerations:

- What alternatives exist to address climate change? How would their implementation affect climate change?
- How can we avoid negative impacts on climate change and if not, how can they be reduced or offset? How can positive impacts on the climate be maximized?
- How can climate change measures be included in a PP?

The environmental report should clearly explain how climate content, tailored to the specific objectives of the PP, has been identified, how uncertainties have been addressed, how appropriate scenarios have been selected (IPCC reports!) and how climate change can be (better) integrated into the final PP and finally proposals for mitigation measures. The state of the environment (present and expected impacts, vulnerability), indicators and impacts of the PP (how the plan will mitigate climate change, how it affects better adaptation and how the PP is adapted to climate change) must be presented. The attitude towards other plans must be explained.

It is necessary to:

- ✓ **take into account climate change scenarios** - possible extreme weather situations and major surprises that could affect the implementation of PP or worsen their impact on the environment;
- ✓ **analyse evolving baseline trends**, including trends in main content of PP over time, in terms of drivers of change (direct and indirect), constraints, areas that may be particularly affected, critical interdependencies, who gains/loses; vulnerability assessment is included (with assessment of the region's or sector's ability to adapt to climate change) and identify the most resilient alternative.
- ✓ assess the **alternatives in terms of different effects on climate change and biodiversity** (through an overview of needs, implementation process, locations, time frames and alternatives that improve ecosystem services); given the uncertainty about the nature of the potential risks, it is better to propose “no-regret” or “low-regret” measures than to risk major problems during the implementation of the PP;
- ✓ **seek the opportunities for improvement** while aligning PP with the relevant objectives and priorities of other climate change and biodiversity policies;
- ✓ assess the **synergic and cumulative effects** of climate change and biodiversity;
- ✓ ensure that climate change mitigation **measures do not have negative effects on adaptation**.

The SEA is an invaluable tool for strategic planners to plan truly sustainably and towards climate neutrality as soon as possible.

ANNEX – Overview on climate goals

At **international level**, according to Paris agreement the target is to keep global warming significantly below 2°C, or rather 1.5°C compared to pre-industrial times. The IPPC special report on 1.5°C has shown that this is a necessary target, as global warming above this limit will have unmanageable consequences of climate change. This commitment was made EU and member states by the Paris Agreement and represents a continuation of the efforts of the signatories of the UNFCCC. It is also part of the 13th (climate goal) of 17 Sustainable Development Goals - Change the World: An Agenda for Sustainable Development by 2030. The goal is to take urgent action to combat climate change and its consequences. Among its objectives there is also to incorporate measures to combat climate change into policies, strategies and plans at national level.

The Convention on Environmental Impact Assessment in a Transboundary Context (ESPOO) and its Protocol on Strategic Environmental Assessments (Kiev Protocol) and the Sendai Agreement on Disaster Risk Reduction are also important at the international level in terms of climate change and strategic assessment.

At **EU level**, the European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy "Clean Planet for All" has set climate neutrality as a general objective by 2050. At the time of developing these guidelines, we are in the process of changing the already set EU climate goals 2030 (40 % reduction in GHG emissions compared to 1990) to tighten these targets, from purely positive to the necessary goals we need to achieve in order to avoid a global unmanageable situation. The European Parliament therefore declared a Resolution on the Climate and Environment Emergency in 2019. The European Green Deal calls for the reform of social and economic policies towards a fair transition to a sustainable society and envisages the adoption of a long-term EU climate strategy until 2050, the European Climate Law and the Climate Pact, and above all, plans to increase ambitions to reduce GHG emissions by 2030 (at least reduction of GHG emissions by 55% compared to 1990). Countries have adopted national energy and climate plans (NECPs) and are adopting long-term climate strategies.

Achieving climate neutrality (i.e. GHG emissions minus sinks = 0) is crucial for decisive action by 2030. According to the United Nations Emission Gap report (2019),[9] global GHG emissions should be reduced by 7.6 % per year in this decade.

To have clear picture of climate goals and objectives it is important to understand the **baseline year**, i.e. the year on which the GHG emission reductions are measured. The UNFCCC did not set a baseline year until the Kyoto Protocol to the Convention. It set the year 1990 as the starting year, and countries were able to choose a different year. The EU has chosen 2005.

[9] https://www.unenvironment.org/resources/emissions-gap-report-2019 (13 November 2020).

Another important factor in understanding the objectives is the fact that **the EU divided climate action into two parts in 2005**:

1. The **GHG emissions trading sector (ETS)**, which includes LARGE installations in which the activity that causes GHG (especially energy, industry and commercial aviation) is carried out. The companies receive or buy emission allowances, which they can trade with one another and are responsible to achieve the GHG emission targets.
2. The **non-ETS sector** consists of all other activities that cause GHG emissions - transport, agriculture, buildings, waste management, consumer goods, and other sectors. Member States are responsible for achieving the goals in the ETS sector.

The current targets for reducing GHG emissions by 2030 at EU level are to reduce GHG emissions by 40 % compared to 1990 and have 32 % of energy from renewable sources, and to increase energy efficiency by 32.5 % (applies to the ETS and the non-ETS sector together). For the non-ETS sector, the target is to reduce emissions by 30 % compared to 1990. Currently the European Commission has proposed raising the 2030 target to 55 % reduction of GHG emissions, but the European Parliament has even proposed 60 %.

For the national level, the current targets are set in the Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030, contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (**Effort sharing regulation**). Each Member State, however, the climate goals set in the national energy and climate plans, long-term climate strategies and climate acts (if they are adopted). At EU level, sectoral targets for renewable energy sources and energy efficiency are also set, and at national level, other sectoral targets exist.

For reaching climate neutrality the carbon sinks are also important. EU Member States have to ensure that greenhouse gas emissions from land use, land use change or forestry are offset by at least an equivalent removal of CO_2 from the atmosphere in the period 2021 to 2030 (the Land Use, Land Use Change and Forestry – LULUCF sector).

A compilation of relevant can be found in the J&E info sheet on climate mitigation advocacy.

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The Work Plan of J&E has received funding from the European Union through its LIFE+ funding scheme. The sole responsibility for the present document lies with the author and the European Commission is not responsible for any use that may be made of the information contained therein.