ADAPTATION TO CLIMATE CHANGE



cepPolicyBrief No. 16/2021

KEY ISSUES

Context: The 2015 Paris Climate Agreement also obliges the signatories to adapt to climate change. The Commission announced the adaptation strategy, that is now being proposed, in its "European Green Deal" in 2019. It aims for coherence with the European Climate Law which requires emission neutrality by 2050.

Objective of the Communication: The Commission presents a strategy for adaptation measures to make the EU resilient to the unavoidable effects of climate change by 2050 ("climate resilient").

Affected parties: Virtually all areas of the economy.



Pro: (1) The envisaged increase in knowledge about the likely impact of climate change, and about the methods and costs of adaptation measures, will facilitate efficient decision-making.

(2) The development of standard EU indicators to measure the progress of adaptation measures will support Member States with monitoring and evaluation and help to improve comparability.

Contra: When it comes to implementation, care must be taken to avoid any excessive administrative burden arising from the need to collect data and apply it to decision-making.

The most important passages in the text are indicated by a line in the margin.

CONTENT

Title

Communication COM(2021) 82 of 24 February 2021:

Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change

Brief Summary

Context and objectives

- Climate change [p. 1 et seq.]
 - manifests itself in extreme weather conditions such as heat waves, droughts, storms, torrential rain and flooding as well as in gradual changes such as damage to ecosystems, the loss of animal and plant species, desertification and rising sea levels due to melting polar ice;
 - is harmful to human health, e.g. due to heat waves;
 - causes annual economic losses of € 12 billion in the EU, due to extreme weather events alone.
- Climate change is the result of past emissions of greenhouse gases (GHGs) which have a time-delayed effect over decades. Even if all GHG emissions were to cease immediately, the negative impact of climate change would no longer be completely preventable. [p. 1]
- Adaptation measures will [p. 1]
 - anticipate "the actual or expected climate and its effects" and
 - make people and the environment more resilient to the unavoidable effects of climate change ("climate resilience").
- The focus of the measures will be the development and implementation of "physical solutions" [p. 11 et seq.], such as
 - creating more green spaces to reduce the effect of heat waves;
 - upgrading sewerage systems to better cope with torrential rain;
 - expanding dams and floodplains to protect against flooding.
- The EU is to be "fully" adapted to the impacts of climate change by 2050 [p. 3]. For this [p. 4]
 - knowledge about climate change and adaptation measures will be increased ("smart adaptation");
 - adaptation measures will be developed and implemented across all areas and levels of policy and all economic sectors ("more systemic adaptation");
 - adaptation measures will be accelerated, developed and implemented ("swifter adaptation");
 - international adaptation measures in third countries will strengthen climate resilience worldwide.



▶ Improving knowledge about climate change and adaptation measures

- There is a lack of knowledge about [p. 4 et seq.]
 - the speed and extent of climate change, its effects on people and the environment as well as the type and extent of "climate-related risks and losses" ("climate damage") such as deaths and economic damage;
 - the effectiveness as well as the costs and benefits of adaptation measures.
- The interdependencies between climate change, ecosystems, and the services they deliver such as the regulation of floods by way of wetlands [EU Biodiversity Strategy 2030, COM(2020) 380; see cepPolicyBrief] will be explored [p. 5].
- The EU-Internet platform "Climate-ADAPT" will collect EU-wide data on climate change from "all relevant sources" and make information available regarding good practices for adaptation measures [p. 6 et seq.].
- To avoid "climate-blind decisions" in the private and public sector, which fail to take sufficient account of climate change, the Commission wants data on climate-related risks and losses [p. 6]
 - to be presented in a "comprehensive and harmonised" way by developing EU-wide rules;
 - to be made accessible via the EU internet platform Risk Data Hub.

▶ Adaptation measures in all areas and levels of policy and in all economic sectors

- The development and implementation of adaptation measures will
 - extend beyond all areas and levels of policy as well as economic sectors ("mainstreaming");
 - pursue "three cross cutting priorities" [p. 7].

Mainstreaming

- "Any new decision" in the public or private sector e.g. to establish land use plans or private building renovations will take account of the effects of climate change [p. 6].
- As the effects of climate change in the EU may be very varied,
- specific adaptation measures are necessary [p. 4];
- comparisons are often difficult, but are possible for areas "with common climate risks" [p. 8].
- National, regional and local authorities will "further develop" their adaptation strategies with adaptation measures being primarily implemented at local level [p. 7 et seq.].
- In order to facilitate monitoring, reporting and evaluation of specific adaptation measures, that is comparable EU-wide, the Commission wants to develop indicators [p. 8].

- Priority 1: Local adaptation measures

- In order to support "local climate resilience", the EU will provide more money via [p. 9]
 - its Structural and Investment Funds;
 - the Recovery and Resilience Facility [see cepAdhoc 07/2020];
 - a new "pilot facility" under the EU Covenant of Mayors.

- Priority 2: National budgetary planning

- Expenditure in the Member States on aid and reconstruction following extreme weather events, as well as on compensation payments for uninsured climate damage, is currently on the increase [p. 10].
- Member States will include "the range of plausible climate scenarios" in their budgetary planning in order to "take account of" the effects of climate change [p. 10].
- The Commission wants to "engage" with Member States on the specifics of how this can be implemented [p. 11].

Priority 3: Nature-based adaptation measures

- "Nature-based" adaptation measures such as reforestation, restoring wetlands, or developing urban green spaces, roofs and walls strengthen climate resilience and also have many additional "environmental, social and economic benefits" ("no-regret solutions") [p. 11].
- The Commission wants to support the certification of nature-based adaptation measures in the agriculture sector to remove GHGs from the atmosphere [LULUCF Regulation (EU) 2018/841; see cepPolicyBrief 29/2016], which will give rise to financial incentives for their implementation [p. 11 et seq.].

► Speeding up adaptation measures

- The Commission criticises the "slow progress" in the development of adaptation measures and that their implementation is "even slower". The main barriers are [p. 12 et seq.]
- the "sizeable" gaps between the investment needed and the financing of adaptation measures;
- the lack of "access to actionable solutions".
- The European Investment Bank (EIB) "has announced" that the projects which it supports will take account of adaptation to climate change [p. 12].
- Adaptation measures will be implemented more quickly by using synergies with other EU policy areas. These include [p. 14 and 22]
 - the EU Biodiversity Strategy 2030 [Communication COM(2020) 380; see cepPolicyBrief];
 - the rules on the Energy Performance of Buildings [Directive 2010/31/EU; see cepPolicyBrief 06/2017] and the strategy for a "Renovation Wave" [Communication COM(2020) 662; see cepPolicyBrief 04/2021];
 - the Action Plan for the Circular Economy [Communication COM(2020) 98; see cepPolicyBrief 05/2020];



- the guidelines for trans-European energy infrastructure [Commission Proposal COM(2020) 824].

▶ International adaptation measures

- The consequences of climate change outside the EU also have an effect e.g. via international trade and crossborder migration – on the EU ("cascading and spill-over effects") [p. 1].
- The EU wants to support adaptation measures, especially in Africa, Small Island States and Least Developed Countries. At the same time, those countries most affected by climate change, and countries that have already taken action on climate change, will have priority. [p. 17 et seq.]
 - Adaptation measures particularly concern agriculture, migration and international trade [p. 17].
 - Support will focus on building administrative capacity, improving data collection and analyses, and developing adaptation plans "in line with national priorities" of third countries [p. 19].

Statement on Subsidiarity by the Commission

Since the local effects of climate change may vary considerably in the EU, Member States will continue to be the "main implementation partners" for adaptation measures. Nevertheless, "more support" and coordination by the EU is needed. Thus, solutions developed for adaptation measures in one Member State are often applicable in other Member States. In addition, the effects of climate change – such as flooding in cross-border river basins – often have a "strong cross-border or international dimension". [p. 3 et seq.]

Policy Context

The 2015 Paris Climate Agreement [see cepPolicyBrief 13/2016] obliges the signatories both to limit the rise in the global average temperature and to adapt to climate change [Art. 7]. The Commission already outlined initial adaptation measures in a White Paper in 2009 [COM(2009) 147; see cepPolicyBrief]. On the basis of that, it published the first "EU Strategy on Adaptation to ClimateChange" in 2013 [COM(2013) 216; see cepPolicyBrief 54/2013], which it evaluated in 2018 [COM(2018) 738]. At the end of 2019, the Commission announced a new EU Adaptation Strategy in its "European Green Deal" [COM(2019) 640; see cepAdhoc]. This aims for coherence with the European Climate Law [COM(2020) 80; see cepPolicyBrief 03/2020] under which the EU and Member States are to continuously expand their adaptation measures.

Options for Influencing the Political Process

Directorates General: DG Environment (leading)

Committees of the European Parliament: Environment (leading), Rapporteur: TBA

Federal Ministries: Environment, Conservation and Reactor Safety (leading)
Committees of the German Bundestag: Environment, Conservation and Reactor Safety (leading)

ASSESSMENT

Economic Impact Assessment

In principle, it is appropriate to tackle the impending effects of climate change by way of preventive adaptation measures as this may reduce the need for subsequent action to remedy damage and thus, overall, prevent economic loss. For example, the construction of dams may reduce the risk of flooding and thereby also the risk of e.g. damage to buildings and production deficits. However, any assessment of the likely impact is fraught with uncertainty. Consequently, anticipating the optimum adaptation measures is also subject to uncertainty. This is a significant obstacle to the cost-benefit analysis of adaptation measures. With that in mind, the Commission's envisaged increase in knowledge about the likely impact of climate change, and about the methods and costs of adaptation measures, will facilitate efficient decision-making.

In an ideal world, with no gaps in the information, it would be appropriate to take account of all relevant information when making a decision in order to make a choice that is both effective and efficient – in this case measures that are fully adapted to the effects of climate change and can be cost-effectively implemented. It is, however, simply impossible, firstly, to close all knowledge gaps and, secondly, to take all information and climate scenarios into account.

When it comes to actual implementation, care must be taken to avoid any excessive administrative burden for authorities, companies and private individuals, arising from the need to collect data and apply it to decision-making. Since the impact of climate change may vary greatly, even within one Member State, it is essential for the implementation of local adaptation measures to be tailored to the specific local conditions. The long-term planning processes, which are beset with uncertainty, can be assessed by way of continuous monitoring and reporting. This will allow for a better evaluation of the benefits of the measures, and means that adaptation measures can be adjusted to the new parameters, where appropriate. However, decisions on adaptation measures are complex and their



effectiveness is more difficult to measure than the measures to reduce GHG emissions, which can be uniformly quantified worldwide. Adaptation measures affect many different areas which cannot all be quantified to the same extent in a universally standard manner, like measuring the success of preserving biodiversity or preventing desertification. Nevertheless, adaptation measures can be evaluated qualitatively. Even if this does not make the various measures comparable from an objective point of view, certain measures can be classified as tending to be more beneficial than others. The development of standard EU indicators to measure the progress of the adaptation measures, firstly, supports the Member States or local councils with monitoring, reporting and evaluation of the adaptation measures and, secondly, helps to improve comparability EU-wide.

The impact of climate change influences many different sectors. Climate change adaptation measures – as the Commission emphasises – should not therefore be considered in isolation but used as a way to achieve additional goals – such as maintaining biodiversity. The strategy does not, however, contain any concrete proposals on how the Commission intends to achieve synergies between the various measures and sectors, in a coordinated manner. Even though many measures from a variety of sectors are addressed, the said synergies remain undefined and possible conflicts of objectives are not identified.

The global impact of climate change may have economic, political and social feedback for the EU. This concerns international trade and access to resources, but also tackling poverty in developing countries and the protection of important eco-systems. Support for third countries from the EU may help to lessen the impact of climate change worldwide, and particularly in developing countries, which will also have an effect on the EU.

Legal Assessment

Legislative Competency

Unproblematic. The EU may take measures to protect the environment and public health, as well as to combat climate change [Art. 192, Art. 191 (1) TFEU]. Apart from measures to reduce GHG emissions, this also covers measures for adapting to the negative impact of climate change.

"Engagement" with the Member States on implementing "the range of plausible climate scenarios" in their budgetary planning does not constitute any interference in national budgetary autonomy, which would be banned under the law on competences [Art. 5 (1) TFEU; cf. also Federal Constitutional Court (BVerfG), Judgement of 7 September 2011 – 2 BvR 987/10] because it is non-binding.

Subsidiarity

Unproblematic. Climate change is not only a cross-border problem but a global one which cannot be solved by individual countries. EU action, both to reduce GHG emissions and to adapt to climate change, is therefore justified. In particular, it is appropriate to coordinate EU-wide, national, regional and local adaptation measures at EU level.

Conclusion

The envisaged increase in knowledge about the likely impact of climate change, and about the methods and costs of adaptation measures, will facilitate efficient decision-making. When it comes to actual implementation, care must be taken to avoid any excessive administrative burden, arising from the need to collect data and apply it to decision-making. The development of standard EU indicators to measure the progress of the adaptation measures supports Member States with monitoring and evaluation and helps to improve comparability. Climate change adaptation measures should not be considered in isolation but used as a way to achieve additional goals.