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CLIMATE RISK AND THE EU BUDGET INVESTING IN RESILIENCE

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Economic losses from climate change-related disasters have doubled in the past 30 years, affecting every sector of the economy, from agriculture to industry. The EU's Multiannual Financial Framework (MFF) plays an important role in helping Europe prepare for and respond to climate risk: it funds disaster response and can support investment in resilience.

The current 2014-2020 MFF puts greater emphasis on climate risk management than previously. The scale of the challenge is, however, increasing, and critical gaps in the EU's approach to climate risk undermine the effectiveness of EU spending. The post-2020 EU budget is an important opportunity to strengthen the EU's ability to prepare for and cope with climate impacts:

- > **Climate risk assessment** is currently patchy and unsystematic. Projects funded by the EU budget need to be assessed for resilience to climate change, and for their contribution to reducing climate vulnerability.
- > The **protection gap**, which sees increasing inequality between different social groups and geographical regions due to vulnerability to climate impacts, needs to be narrowed or closed. This means working with the insurance industry to lower inequality and exposure amongst at-risk groups.
- > **Disaster-response instruments** need to be adequately funded. However, this must be matched by better planning for managing climate risk. EU funding should be linked to the development of climate adaptation strategies and action plans at Member State level.
- > **Data collection, monitoring and evaluation** needs to be strengthened considerably. Reliable information on investment needs, planned investments and actual expenditure in resilience is a particular gap. The European Environment Agency should be empowered and properly funded to conduct a comprehensive monitoring of internal and external climate vulnerabilities in the EU.



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1) A more comprehensive climate risk assessment

Climate-related disasters are on the rise in Europe and their economic impacts have almost doubled **from an average of €7.5 billion in 1980-1989 to an average of €13.3 billion in 2010-2015**. Impacts are affecting all major areas of EU's economy, including areas where significant EU funds are allocated:

- > **Agriculture and food security:** Agricultural cycles are heavily reliant on weather patterns. However, these patterns are starting to be altered by climate change. For example, extremely severe cold snap and floods have hit vegetable producers in France, Italy, Spain and Greece, **pushing up vegetable prices by up to 132% and causing shortages in Northern European supermarkets**¹. In fact, a recent report by Chatham House identified climate change as one of the major risks for global food trade², with its subsequent impact on EU food markets.
- > **Industry and the Single Market:** As much as **56% of projected climate-related economic impacts are directly linked to productivity losses from workplace heat stress** in economic sectors such as tourism, manufacturing, construction and transportation³. This is particularly alarming taking into account that extreme heatwaves above 40°C may occur as often as every two years⁴, putting at risk the capacity of the Single Market to generate growth.
- > **Power generation and the Energy Union:** Current warm periods are adding pressure to plants located in areas under water stress and more and more regions are experiencing reductions in power availability as water resources available for cooling power plants are decreasing. According to a recent study, **by 2030 the number of basins with power-generation capacity that will be under water stress will increase by 15%**⁵.

Climate risk

In this briefing, the term **climate risk** refers to threats to human and natural systems resulting from climate change impacts and the vulnerability of these systems. Climate risks include the direct physical impacts of severe weather events, as well as second and third order consequences of climate-related events elsewhere in the world (e.g.: the **2011 floods in Thailand**⁶, which disrupted global supply chains in the electronics and automobile sectors).

¹ The Guardian (2017), **Courgette crisis: Spanish farmers hope the worst is over**

² Chatham House (2017), **Chokepoints and Vulnerabilities in Global Food Trade**.

³ According to the figures provided by the H2020 project 'Heat Shield'.

⁴ Joint Research Centre (2017), **Humid heat waves at different humid levels**.

⁵ Behrens et al. (2017), **Climate change and the vulnerability of electricity generation to water stress in the EU**

⁶ BBC News (2011), **Thailand floods disrupt production and supply chains**.



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For those reasons, the Multiannual Financial Framework post-2020 should become an instrument to align the European value added to EU funds with a more resilient economy. The Common Provisions Regulation (CPR) regulating the operations of European Structural and Investment Funds (ESIF) under the current budgetary period 2014-2020 includes resilience and adaptation as an objective.

Despite this, **assessment tools are weak. The lack of sectoral vulnerability assessments and audits challenge the EU's ability to manage climate risk⁷ and make it difficult to assess whether EU budget spending has had an impact on reducing climate vulnerabilities across Europe.**

The upcoming MFF should include a more comprehensive climate risk assessment as an ex-ante requirement for allocating EU funds to projects, with specific emphasis on infrastructure. This should include:

- > **Indicators to measure the extent to which the project is expected to cope with medium-to-long term climate impacts in different global temperature rise scenarios.**
- > **An assessment of the extent to which a project contributes to reducing overall climate vulnerabilities of the EU.**

Figure 1. Main climate vulnerabilities in Europe



⁷ European Court of Auditors (2017), **Landscape review: EU action on energy and climate change**



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2) Reducing the protection gap

Out of all economic losses resulting from climate-related impacts in the EU since 1980, **two thirds were uninsured** and are therefore unrecoverable⁸. That means that there is a significant protection gap in Europe, where assets are not properly insured against the impacts of climate change. This protection gap is especially alarming for sectors in a less advantageous economic situation. On the one hand, they lack the resources to bear the costs of unrecoverable losses. On the other hand, they sometimes lack access to information about their vulnerability and/or to affordable insurance. As climate-related disasters become more frequent, more severe, prices of insurance against their impacts are expected to increase. This means more and more sectors will find it hard to insure their assets, further widening the protection gap.

Climate risk thus deepens social inequalities, but also has the potential to affect geographical inequalities within the EU. The European Court of Auditors recently warned that **EU Member States are not sufficiently prepared to cope with the expected impacts of climate change**⁹, evidencing the need to introduce far-reaching reforms to the climate risk governance system in the EU. However, climate impacts will not affect all EU countries in an even manner: For example, Central and Eastern European countries will be more affected by river floods and storms, which are the climate-related events causing more economic losses¹⁰. This is particularly worrying bearing in mind the share of EU funds in relation to GDP allocated to countries in the region ranges from 13% to as much as 30%¹¹. **Without more ambitious climate adaptation measures, it is increasingly likely that projects financed with EU funds will be exposed to physical climate risk**, resulting in more economic losses.

The EU budget must be focused on ensuring spending efficiency and protecting EU finances from economic losses. This must be done in an inclusive manner, including a commitment to ensure that those in a more vulnerable situation are not left behind due to the lack of available resources to insure their assets against climate risk. In 2015, the G7 set up the InsuResilience partnership to increase insurance coverage against climate risk in emerging economies¹². Civil society, the insurance sector and other stakeholders participate in the initiative with the aim to offer insurance against climate risk to an additional 400 million vulnerable people in developing countries. The EU joined the initiative at COP22 in November 2016, where partners confirmed their commitment to increase financial contributions to USD 550 million to support projects that attempt to reduce the protection gap of vulnerable sectors.

The MFF post-2020 provides a venue for replicating the InsuResilience initiative at the EU level. Closing the protection gap will have a direct effect in alleviating the budgetary stress of disaster-response mechanisms under the EU budget. In addition,

⁸ European Environment Agency (2017), [Climate change, impacts and vulnerability in Europe 2016](#)

⁹ Ibid. European Court of Auditors (2017)

¹⁰ Ibid. European Environment Agency (2017)

¹¹ European Commission (2017), [European Structural and Investment Funds database](#)

¹² InsuResilience official website



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the upcoming MFF post-2020 should allocate EU funds to support projects that aim to close the protection gap of vulnerable populations across Europe. Civil society and the insurance sector would be involved in the creation of this initiative, helping to develop and identify projects with the greatest potential for improving access to climate risk insurance and for leveraging private investments. In addition, this initiative would give a greater push for prevention and risk reduction, since insurance works as a tool for raising awareness of climate vulnerabilities of specific assets.

3) A budget to plan and prevent

Climate risk is an inherently cross-border challenge. Despite this, the role of the EU in climate adaptation has so far been rather limited. Since the early 2000s, the EU Civil Protection Mechanism and the EU Solidarity Fund, established in 2001 and 2002 respectively, have complemented EU Member States' disaster-response efforts. **The role of the European Union in this matter has generally been reactive, focusing more on paying for the losses of climate-related disasters rather than investing in preventing them.** In 2013, the EU launched an Adaptation Strategy in an attempt to address climate risk prevention, encouraging EU Member States to develop adaptation plans. To date, 20 Member States have developed national adaptation strategies, but only nine have turned these strategies into actionable plans¹³. Moreover, there is no mechanism at the EU level to assess whether these initiatives are having an impact.

The lack of an overarching system to reduce and manage climate risk has forced the EU to keep being reactive and make use of other non-climate specific tools to channel EU funds to disaster-response. For example, in 2017 the European Commission agreed to relax Common Agricultural Policy and rural development funds rules to advance direct payments to weather-afflicted farmers¹⁴. Consequently, farmers in several EU Member States were offered a buffer against climate-related economic losses. This approach might work in the short-term, but expected increases in heatwave frequency and desertification - especially in the agricultural breadbaskets of Southern Europe¹⁵ - will put additional pressure on funding streams that are not designed for such use.

The EU's disaster response instruments are already under stress. The EU Civil Protection Mechanism was allocated only €223.7 million under the current MFF 2014-2020 (around 3.16% of the total budget for Humanitarian Aid and Civil Protection)¹⁶ for preparedness and prevention. On the other hand, the EU Solidarity Fund to help disaster-stricken countries with reconstruction efforts has provided €2.6 billion since 2002 to support Member States recover from climate-related natural disasters¹⁷. The European Commission has warned that **the funds allocated under the EU budget for the Civil Protection Mechanism are insufficient**, especially in a context where the delivery of civil protection is becoming more complex due to climate and multi-hazard

¹³ European Environment Agency (2017), **Number of countries that have adopted a climate change adaptation strategy/plan**

¹⁴ Euractiv (2017), **Commission relaxes CAP payment rules for weather-afflicted farmers**

¹⁵ Guiot and Cramer (2016), **Climate change: the 2015 Paris Agreement thresholds and Mediterranean basin ecosystems**

¹⁶ European Commission (2016), **Financing Civil Protection**

¹⁷ European Commission (2017), **EU Solidarity Fund Interventions since 2002.**

risks¹⁸. This is a clear case of missed opportunity for spending efficiency, given the European Commission estimates that **every €1 invested in risk prevention saves up to €7 in disaster-response efforts**¹⁹.

The EU Civil Protection Mechanism should be allocated enough funds to better coordinate its resources and be given a permanent team of experts to be complemented by participant countries' voluntary contributions. In addition, the EU Solidarity Fund should be scaled up and facilitate the request of assistance by regional and local authorities, especially those affected by cross-border climate risk.

Incentives for EU Member States to develop adaptation strategies and plans should be provided. For example, recipients of EU funds for infrastructure projects under the MFF post-2020 should be required to have both an adaptation strategy and an action plan in place before receiving EU funds. Such a requirement would not add excessive administrative burdens, given it could be included in the drafting of their Operational Programmes. In addition, the European Environment Agency should be allocated additional resources to assess these plans and issue recommendations to reduce remaining vulnerabilities.

4) Funding for data collection, monitoring & evaluation

Effective spending on climate adaptation requires accurate data on vulnerabilities. The 2013 EU Adaptation Strategy attempted to create a common framework for adaptation at the EU level and encourage Member States to improve data collection. Its non-binding character entailed clear limitations, resulting in significant flaws to cope with climate risk. Despite progress made in collecting information on climate vulnerability and impacts²⁰, the **lack of data availability is especially acute in the case of investment needs, planned investments and actual expenditure in resilience**²¹.

Figure 2. Data availability on investment needs in resilience



Source: Trinomics

¹⁸ European Commission (2015), *Annual Report on Implementation of Humanitarian Aid and Civil Protection Policies*

¹⁹ European Commission, *Disaster Risk Reduction website*.

²⁰ For example, thanks to the Climate-ADAPT database and the Joint Research Centre's PESETA II project.

²¹ Trinomics (2017), *Assessing the state-of-play of climate finance tracking in Europe*.



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Recent studies point to similar shortcomings at the time of tracking EU spending on adaptation and resilience. In this case, **data collection is so fragmented and insufficient it does not allow for proper accounting of investments** in countering climate risk across EU financial instruments and programmes²². This makes it impossible to make results-based evaluations to improve the quality and efficiency of spending, challenging the commitment of the EU to deliver a budget focused on results²³.

Accurate data and information are essential both for prevention and disaster-response purposes. The European Environment Agency currently conducts reviews of climate vulnerabilities in the EU, but it does not account for external risks that could spill over to the EU, such as impacts on the EU Eastern and Southern Neighbourhoods. Including these considerations would substantially improve information on actual climate vulnerabilities of the EU.

The MFF post-2020 should increase the resources allocated to the European Environment Agency to give it the task of conducting a comprehensive monitoring of internal and external climate vulnerabilities in the EU. This will improve the accuracy of data on EU Member States' adaptation needs and will ultimately result in greater spending efficiency of EU funds.

The European Environment Agency should also be allocated sufficient resources to evaluate EU Member States' adaptation plans and provide an assessment of the extent to which planned expenditure detailed in those plans matches the magnitude of adaptation needs. Such assessment would give more detailed information on possible funding gaps, facilitating investment decisions with both private capital and EU funds.

²² European Commission (2017), **Climate mainstreaming in the EU budget: preparing for the next MFF**

²³ The European Commission launched its '**Budget Focused on Results (BFOR) Initiative**' in 2015 to ensure spending efficiency and targeted investments that exploit EU value added potential.



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About E3G

E3G is an independent climate change think tank operating to accelerate the global transition to a low carbon economy. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere. In 2016, E3G was ranked the number one environmental think tank in the UK.

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