Public policy and governance for European social-ecological protection

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Abstract

Political action can be theorised to occur in three stages: framing (what is the main problem, what is the main aim?), public policy (what are the options, what are the possible solutions?), and governance (how can the various interests be managed, how can the solutions be implemented?). In the context of the debate on ecological crises and European welfare states, analysis has until recently concentrated on the framing stage of political action. Due to contestation and a lack of definite conclusions concerning this stage in both literature and political debates, the subsequent stages of public policy and governance have been less frequently and specifically discussed, although they are critical for action. In this paper, Pochet, Van Melkebeke and Möller argue that it is both urgent and necessary to advance to these latter stages.

This paper explores, in that context, the role that sectors of the welfare state can play in reducing the social risks linked to the climate crisis, while also contributing to reducing greenhouse gas emissions, environmental degradation and biodiversity loss. These questions are approached through a discussion of stage one (framing), before moving on to examine stages two and three (public policy and governance) in greater detail. The authors do so by highlighting challenges and opportunities in the current European circumstances, in an analysis which informs the final section of this paper, outlining policy reflections for risk-informed approaches to reform of eco-social protection in welfare states. In particular, the authors put forward suggestions on how to *adapt, extend* and *finance* EU-level welfare state policies, ranging from incremental to transformative.

To arrive at these findings, the authors used a collaborative, participatory mixed-methods research methodology. The research process started with an extensive literature review, to inform a first analysis which was then discussed and critiqued in a diverse group of experts and practitioners. This iterative process of developing knowledge supported the development of politically relevant, evidence-based insights, merging multiple perspectives that can concretely inform European policymaking on eco-social risks.

Introduction[1]

Social inequality is prevalent in the European Union, both within and between Member States.[2] It generates social risks with significant consequences for individual and collective wellbeing. For instance, housing affordability for both renters and buyers is currently at a historical low (European Commission, 2023; Eurostat, 2023); and energy and transport poverty remain unresolved issues for too many Europeans (Widuto, 2023; European Commission, 2024). The persistence of these risks is a clear indication of distributive injustice, and also shows that European welfare systems have been unable to meet their goals of providing social protection and security.

Currently, this unfulfilled role of welfare states is aggravated by the climate emergency. In the wider context of the Anthropocene,[3] the current environmental and climate-related risks are unprecedented and increasing. 2024 was the hottest year on record (Copernicus, 2025). The accompanying environmental and climate emergencies took a heavy toll on nature, societies and individuals. Extreme temperatures can have very detrimental impacts on human health: in previous summers, there were around 62,000 (2022), 48,000 (2023) and 63,000 heat-related fatalities (Ballester, 2023, p. 1; Gallo et al., 2024, p. 1; Copernicus, 2025; Janos, 2025, p. 1). The Copernicus report states that storms and floods affected around 413,000 Europeans, with 335 deaths. These events resulted in €18.2bn in estimated losses (Copernicus, 2025, p. 8,16). Furthermore, exposure to pollution and other forms of environmental degradation creates additional layers of vulnerability – in their turn creating social risks – with 13.7% of EU citizens self-reporting exposure to these hazards (European Commission, 2023, p.11). Similarly, the European Environment Agency (EEA) has found that environmental and occupational risk factors may contribute to 10% of cancers in Europe (EEA, 2022, p. 1).

Following the 2015 Paris Agreement, the EU set ambitious targets for reducing its greenhouse gas emissions, attempting to mitigate the climate emergency and the related risks. This necessitates the adoption of a wide range of public policies in sectors as varied as energy, industry, agriculture, housing, transport and spatial planning. It also requires the use of a diverse range of instruments: regulation, standards, taxation, subsidies, investment, aid to affected regions and populations, soft law, etc.

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[1] We would like to thank the participants in the knowledge communities, Matteo Mandelli and Slavina Spasova for their useful and important comments.

[2] In 2021, the poorest 50% of Europeans only received 19% of the total income in the EU (Neef & Sodano, 2022, p. 4). This is reflected in public opinion, with 81% of Europeans believing that income inequality is too high (European Commission, 2023).

[3] The Anthropocene is an unofficial unit of geological time, used to describe the period in Earth's history when human activity started to have a significant impact on the planet's climate and ecosystems. There is no agreement on the starting point: while some propose the agricultural revolution, the majority refer to the industrial revolution or later in the mid-20th century, with the increased use of coal, gas and oil.

Recent data shows that significant, though uneven and insufficient, progress has been made (Escrig, 2025). Progress has been particularly visible in industry and the renewable energy sector, though much less so in transport, housing and agriculture. This is unsurprising, as the efforts still needed in these latter areas will have major repercussions on inequalities and lifestyle, and will in their turn create new social risks. One of the associated issues that comes up in public debates is rising energy poverty levels in Europe, but this is not the only challenge. Mobility issues (not confined to electric vehicles) will also become increasingly prominent – as illustrated, for example, by the reactions of the Yellow Vests movement.

The next phase of the transition, moreover, comes at a time when political support for the European Green Deal (EGD) appears to be waning. Predominantly populist parties of the right and centre-right highlight the costs for the poorest populations and the new social risks, and cite these as a reason to put the brakes on the transition. On the other hand, green transition advocates often rely heavily on technological fixes to resolve the problems associated with climate change, relegating economic and social changes to the background. This approach is a double-edged sword: first, it fails to offer a compelling, positive narrative that resonates with the public; second, it confines the debate to a narrow set of changes – primarily to the energy system – while overlooking broader social and structural dimensions.

This paper aims to investigate specific political actions that could influence and have an impact on European and national public policies. Our reflection is not intended to be exhaustive, but have been selected for their feasibility, and as likely candidates for debate during the current European legislature. Other, more transformative, proposals are of course also interesting (see for example Coote, 2023 on universal service, or Bohnenberger, 2025 on radical change at EU level), but these ideas are not discussed here.

Our findings were enriched by a collaborative, participatory mixed-methods research methodology. The research process involved conducting an analysis based on an extensive literature review. As the aim was to select practical proposals, this research was then discussed and critiqued within a diverse group of experts and practitioners, between autumn 2023 and spring 2024. This iterative, interactive approach supported the development of evidence-based, politically relevant findings, merging multiple perspectives to inform European policymaking in response to the new social and ecological risks.

The paper is structured as follows. Section 1 includes a literature review that outlines the current debates on the nexus between welfare states and the climate emergency. Section 2 presents an outline of gaps in the political action model. Section 3 proposes policy reflections based on our findings and considerations. We then conclude.

1. The welfare state and climate emergency nexus debate: conceptual framework and literature review

Building on the observations described above, we need a framing that can build a strong enough consensus to tackle both climate emergency-related risks – i.e. accelerating the transition – as well as green transition-related risks. This paper argues that such framing should centre on European welfare states. The potential for social protection to both protect citizens from climate damage and accompany the changes, thereby reducing social tensions, needs to be placed at the forefront of the political debate. To achieve this, a clear approach is necessary: climate policy and welfare state policy must be taken forward in a mutually reinforcing way. A key question here will be how the welfare state can, on the one hand, protect people from climate risks and damage, and, on the other, enable them to mitigate those risks. More specifically: what role can social protection play in reducing greenhouse gases and ensuring the fairest possible transition?

The report of the 2023 High-Level Group on the future of social protection and the welfare state in the EU emphasises that "achieving climate neutrality and environmental sustainability will only be possible if accompanied by measures to support those groups hit by the green transition, including by bridging disparities, not least because those for whom the transition will be hardest are those with the lowest level of emissions". Its authors focus on a limited number of issues, such as employment and energy poverty. However, looking at the different types of social protection, it is clear that the impacts of both the climate crisis and the transition are far more numerous and varied. Examples of these impacts (and their risks) include, but are not limited to: health (junk food, transport emissions, new illnesses), pensions (deaths due to pollution, heatwaves), employment (restructuring, green jobs, relocation, migration), training/education (reskilling, upskilling), poverty (energy, food, transport), health and safety (chemicals, Seveso plants[4], external/internal pollution) and housing (retrofitting, energy poverty, cost; see also Beaussier et al, 2024; Mandelli et al., 2025).

The aim of this paper is not to provide a detailed analysis of the issues involved – this has already been done in a number of recent publications (e.g. Schoyen & Hvinden, 2017; Galgoczi & Pochet, 2022, 2023; Nenning et al., 2023; Van Daalen et al., 2024; Vleminckx, 2024; Schulze Waltrup et al., 2025; Vielle et al. 2025).

Notably, Bohnenberger (2023) has synthesised the state of academic debate in a literature review mapping the different research topics currently under investigation (see table below).

[4] The accident near Seveso, Italy, in 1976 gave its name to a European directive (1982) aimed at reducing the risk of industrial accidents.

Table 1. Research intensity of several related topics

Research intensity			
emerging research		established research	
rudimentary	**basic**	**developed**	**extensive**
Financing social security sustainably	Socio-ecological transformation scenarios	Compensating role of welfare states	Social outcomes of climate policies
Climate-resilient social security	Growth-dependency of welfare states	Social outcomes of the climate crisis	Eco-social policies in housing, mobility, nutrition
Eco-social institutions	Environmental impact of welfare benefits	Alliances and eco-social movements	Energy social sciences
Eco-social security during (un)employment, basic income and pensions	Principles of sustainable welfare	Eco-social attitudes and voting behaviour	Environmental impacts of economic distribution
Eco-social security for families, (long-term) care and households	Ecological labour (market) policies	Eco-social country regimes	Normative foundations of sustainable welfare

Bohnenberger, 2023, p. 331

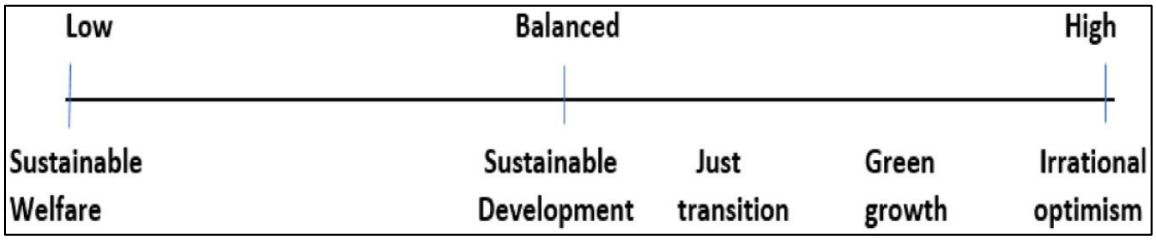
From the classification proposed by Bohnenberger, it appears clear that our research falls mainly within the category of basic emerging research. This means that although there is increasing research on these issues, there is, to date, a lack of integration of the work being done.

There is significant commonality between the literature on the welfare state and the literature on the environmental state (see, for example, Gough, 2016). Both address the issue of capitalism and ways of taming it (decommodification/post-growth/well-being), as well as major challenges such as inequality, intergenerational solidarity, redistribution and poverty. Their shared aim is to ensure social stability so as to reduce the risk of societal collapse. The two approaches can be synthesised in the idea of an eco-social state (or eco-social policies), though the exact form this takes will vary from author to author.

Despite this, the role of the welfare state in addressing the environmental crisis has not yet received sufficient academic or political attention. Studies, though increasing in number and quality, are still scattered and incomplete. Until recently, most discussions about the links between welfare states and the climate emergency have remained general: they focus on the need for transition/transformation and deliver the rationale for moving toward an eco-social welfare state, but usually lack macroeconomic analysis (budgetary impacts, costs, financing, etc.). As Mandelli (2022: pp. 342) writes in his review of the literature: “eco-social policies in the literature: [are still] a predominantly normative field”.

One of the complicating factors is the existence of multiple readings of the welfare state. The objectives assigned to social protection vary enormously, depending on the authors and policymakers concerned. Examples include: addressing poverty, reducing primary inequalities, exiting the market (decommodification), protecting the wealthiest from social revolt, facilitating change, and fostering capabilities. There are also varying approaches to ecological transitions. Sabato and Mandelli (2018) have situated these different schools of thought along the axes of growth versus post-growth and degrowth, and of technological innovation versus behavioural change (Figure 1).

Figure1: Importance attached to economic growth in five approaches to ecological transitions



Sabato & Mandelli, 2018

They have also identified four functions of a welfare state in relation to the environment (2023): a benchmark for the green transition (normative dimension); an enabler of policy programmes and instruments; a buffer for policy programmes and instruments; and a consensus builder/ conflict management tool (procedural dimension).

Additionally, Nenning et al. (2023) have grouped scholars' contributions to the debate under the following five headings: Adaptive Social Protection, Just Transition, Green New Deal, Post-growth, and Eco-feminism. They point out that each of these approaches has its own reading of the causes and remedies as well as of the main actors involved: "the new social protection norms proposed by scholars in different policy frameworks are shaped by their understandings of the climate crisis and the role of capitalist growth, as well as the geographical and actor political context within which they were developed".

Finally, Galgoczi and Pochet (2023), drawing on the four French scenarios developed by ADEME (2022), apply the technology-behaviour axis of ecological transitions to welfare states. They argue that ecological transitions ultimately, in practice, involve a mix of technology and changes in collective and individual behaviour, but in highly variable combinations depending on the approach. In a scenario in which technology plays the key role, the restructuring process towards a zero-carbon economy creates its own risks that need to be managed. This approach can co-opt conventional instruments of the welfare state and the standard repertoire of public policies. However, in a scenario that goes beyond technology and focuses on bringing human activity back

within the limitations of the planet, the entire model of production and consumption will require a fundamental, paradigm shift (Laurent, 2021).

The types of solutions proposed vary depending on the balance struck between technological solutions and societal transformation. To give a simple example: moving to electric mobility implies relatively minor changes, but rethinking mobility and interoperability would entail radical changes and the restructuring of the car industry.

As indicated in the introduction, framing the problem and presenting the various possible readings has been central to the academic debate over the last 10 years. In its most basic terms, the debate has been between an adaptative approach largely within the limits of capitalism, and a transformative approach going beyond capitalism.

In terms of the politics and actors involved, it is arguably much more feasible to make incremental modifications to existing public policies (as in the first scenario, with its focus on technology) than it is to completely redesign them (as in the second, more systemic scenario) or even redesign the objectives and structure of the welfare state as a whole. But it is also clear that technology alone cannot resolve everything. Further societal changes will be necessary to address the issues and reduce CO_2 emissions; a more radical (re)thinking of welfare states will be essential. The two approaches are, however, not wholly incompatible: they can be used transitionally, starting with the first and then moving on to the more radical but necessary second (see Gough, 2017 and 2021 or Laurent & Pochet, 2015 for this type of scenario).

To conclude, there are major points of convergence in the recent literature. There is agreement among the authors that the climate emergency is conceived of in different ways, and that the related proposed responses of the welfare state reflect these differing understandings of the problems and solutions. Moreover, there is also a consensus that public policy proposals are still incomplete and require further research (Petmesidou & Guillén,2022).

2. Filling the gaps of the political action model

There are different ways and perspectives to describe political actions or public policies (Hassenteufel, 2021). In this paper we consider that political action can be divided into three stages: framing (what is the main problem, what is the main aim?), public policy (what are the options, what are the possible solutions?), and governance (how can the various interests be managed, how can the solutions be implemented?).

At the EU level, the debate on the role of the welfare state in the climate emergency is still mostly at stage one. Framing is arguably difficult for policymakers, as the discourse and literature are varied and do not enable direct conclusions to be drawn as to how the welfare state can be transformed to address the climate emergency. The current political thinking similarly focuses on how the question should be formulated and the possible discursive articulation between social and ecological policies.

The public policy implications in terms of options and solutions were, until recently, rarely discussed in detail: specific policy proposals tend to be limited and poorly articulated. However, an emerging strand of literature (see Mandelli et al., 2025; Vielle et al., 2025; Viennot et al., 2025, for example) seeks to specify the nature of risks and the political options. The approach is less theoretical and is mainly based on better defining the risks and then the different options to reduce them.

Finally, the crucial governance aspect (in particular the coalition of actors) is often overlooked and needs to be explored further. This is now starting to be the case (see, for example, Charbonier, 2025; Mandelli et al., 2025b).

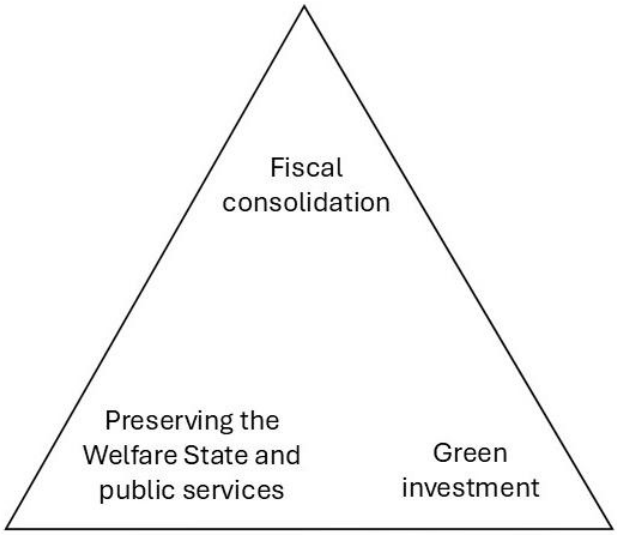
This section of the paper aims to advance European social-ecological protection debates towards examining the options (public policy, stage two), and considers the role that could be played at the European level, both economically and socially (governance, stage three). It does so by addressing key barriers and opportunities.

2.1 Overcoming the financial trilemma

Studies show the need for massive investment in the transition. According to the IEA (2024), yearly global investments in the clean energy sector until 2030 need to be doubled, and spending on efficiency needs to be tripled, to keep the COP28 goals within reach. In the EU, to achieve a transition towards a climate-neutral economy by 2030, the ECB assesses the investment needs at between 2.7% and 3.7% of EU GDP (Andersson et al., 2025, p.1). In comparison, the size of the EU budget has stayed at around 1% of EU GDP since the 1980s (Buti, 2023). This discrepancy between the needs and current investments is further documented by multiple researchers and institutions (see, for example, the I4CE report – Bizien et al., 2024 – and Berhami Sintomer et al., 2025). Progressing to stages two and three will require a closing of this so-called spending gap.

To do so, policymakers need to seek a solution to the institutionally established trilemma[5] between the need to preserve the welfare state, investments in the green transition, and the stringent European focus on fiscal consolidation (illustrated in Figure 2).

Figure 2: The current financial trilemma



Pochet, 2010

Overcoming this trilemma requires a shift of focus away from overemphasis on fiscal consolidation. One of the strongest arguments to do so, apart from the clearly documented spending needs, is that the cost of inaction would be dramatically higher than forward-thinking investments (Pisani-Ferry & Tagliapietra, 2024). Today's obsession with fiscal consolidation thus creates a massive strain on long-term fiscal stability.

Predictions as to the near future, however, are not optimistic. On the contrary, Pisany-Ferry et al. (2023), for example, show that the current spending deficit will increase from 2025/2026 with the end of the Recovery and Resilience Facility (RRF). This increase will not be offset by the new contribution of the Social Climate Fund (SCF), which will be implemented from 2026 onward[6]. The consistent insistence on fiscal consolidation, expressed through the Stability and Growth Pact, which was previously paused to respond to the Covid-19 pandemic, has recently been given some leeway by the EU economic governance reform. While at first glance this could open a window of opportunity, important limitations emerge (Theodoropoulou, 2024). The exceptions to

[5] This is arguably a false trilemma, since it could be resolved by means of a different, more thoughtful macroeconomic approach.

[6] The RRF amounts to €723 billion for 2021- 2026, including €338 billion in grants. From 2026 to 2032, the Social Climate Fund will provide the much lower amount of €86.7 billion, of which 25% is moreover set to come from the national budgets of EU countries.

the stringency of EU fiscal consolidation in EU fiscal governance do not create the genuine investment space needed for a socially just and sustainable green transformation (for a detailed analysis of the needed scope of the next MFF, see Berhami Sintomer et al., 2025).

Rather, the 2024 reforms of the Stability and Growth Pact have created detrimental functional pressures: there are no exemptions for public investment, meaning that if Member States want to increase their investment in the twin transition, the available funding needs to come from other budget areas or from income from raised taxes (Heimberger, 2025). The 2025 flexibility clauses concern only defence spending and only 16 countries have applied for these (all demands were accepted).

Most recently, the dynamic has become even more complex. While the debt brake and strict fiscal consolidation are currently being questioned in order to allow for more investment (as seen in Germany, with the new security programme, as well as at EU-level, with the national escape clause), these developments are dominated by a focus on defence spending. This reflects the EU's new security agenda (Degryse, 2024) and is therefore not automatically a productive dynamic when it comes to delivering ecological and social goals – and thus closing the transition investment gap. However, these recent developments also come with opportunities. In this context, we must define security beyond military aspects and determine how social spending (social security) and environmental investment might fit into the new agenda.

2.2 Channelling social-ecological protection through social governance at the European level

The governance of Social Europe is structured and limited by the division of competences between the EU and its Member States. This multilevel governance makes it more difficult to reach a European social agreement. Milotay (2020) explains that social governance in the EU is defined by these shared competences, resulting in the absence of a "European comprehensive, regulated social governance framework". Rather, social governance occurs through soft law governance tools, coordination through the European Semester, as well as funds and programmes This includes the Open Method of Coordination (OMC), which has put poverty and social exclusion/inclusion, pensions and healthcare on the European agenda. Although their results are disputed (see, for example, Graziano, 2023; Miro et al., 2024), this method has enabled exchanges of experience at the structural level and made it possible to learn from other approaches.

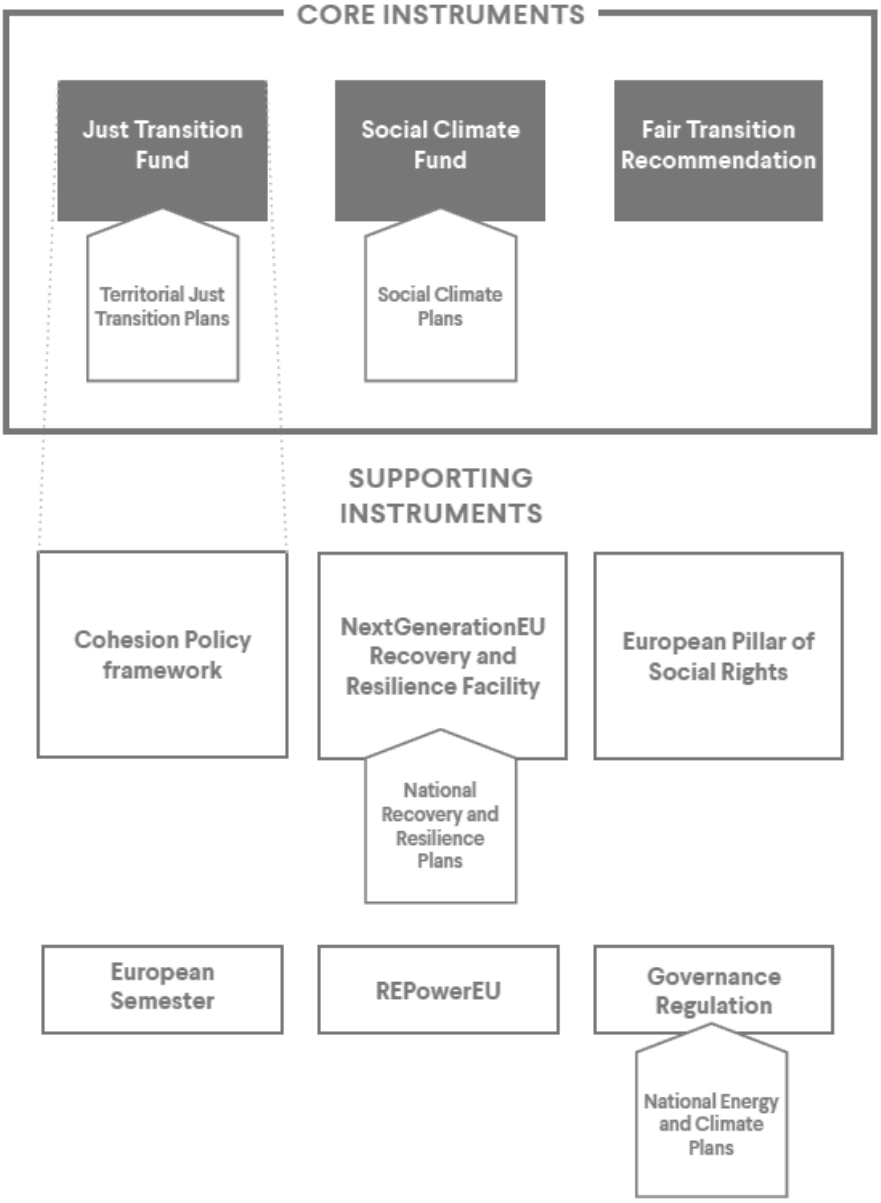
Despite some noteworthy developments in European social policy up to the second term of Commission President Ursula von der Leyen (see, for example, Keune & Pochet, 2023, in the special issue of Transfer), a cursory glance might lead one to the conclusion that interest in welfare state issues has not followed this evolution. One of the traditional arguments is that the

welfare state is essentially a national issue and that the European Union has limited capacities to influence the political discussion on welfare, which traditionally falls to the purview of the Member States.

However, as Miro et al. (2023) point out, the last 15 years have seen the emergence of a series of innovations at the European level which have created new interactions between European policy and national welfare states, in particular linked to the green transition. These innovations include new schemes and funding programmes that, to a certain extent, elevate the responsibility for social and climate policy to the EU level. Examples include the European Globalisation Adjustment Fund for Displaced Workers (EGF), the Youth Guarantee (YG), the Just Transition Fund (JTF) and the Social Climate Fund (SCF), as well as two schemes set up in response to the Covid crisis: the Recovery and Resilience Facility (RRF) and the temporary Support to mitigate Unemployment Risks in an Emergency (SURE). Miro et al. (2023) emphasise that "all [the above examples] represent experiences in which the EU stepped up to act as a provider of social protection, either directly to citizens or through supporting the social programs of Member States under stress".

Arabadjieva et al. (2024) have also summarised the EU-level instruments that currently already aim to address social-ecological risks linked to the climate emergency and the green transition (Figure 3). The authors define this set of measures as the EU just transition governance framework, consisting of "core instruments" and "supporting instruments" (See Figure 3 below). They further set out three gaps in the current just transition governance framework, which are similarly hindering the EU's progress regarding stage two and three of social-ecological protection. Firstly, they point to a general lack of coordination, expressed in a fragmentation of objectives and instruments, and a mismatch between the policy objectives that the transition approach seeks to connect, namely energy and social policy. Secondly, the transition is improperly funded, in that its underlying funds, such as the Just Transition Fund, are "limited in their budget, timeframe and sectors and activities they cover" (see infra). Lastly, the discretion left to the Member States in their planning of the Just Transition Fund often leads to a prioritisation of economic over social objectives, effectively sidelining the goals of the national just transition plans (drawn up to allocate the fund) (WWF, 2023).

Figure 3: EU instruments of just transition governance



Arabadjieva et al., 2024

2.3 Rising to new challenges

Recent high-level reports have arguably continued to open up space for specific policy and governance developments in European social-ecological protection. In the evolving geopolitical context, Niinistö (2024) has outlined the dangers of climate emergencies as a risk multiplier, arguing that climate change mitigation and adaptation are "key components of the EU's preparedness". These demands are also supported by Europeans, 94% of whom recognise the need to adapt to climate change, and half (50%) of whom consider climate adaptation

a priority for their country for the coming years (EIB, 2024 p. 1). The numerous and increasing risks of climate change for European welfare systems, especially those related to employment and health, intensify the pressure to adapt and extend these systems to make them robust and resilient (see Letta, 2024).

The EU is not static, and has recently seen many new initiatives, debates, policies and funding programmes, as well as new legislation. These developments in European investment schemes and social policy create new and interesting possibilities, but nothing is set in stone: consensus is only temporary, and the innovations are partial and not consolidated in the form of European treaties. In addition to the need to rethink economic, budgetary and taxation rules at the European level, the discussions also need to include concrete policy options for further integrating the climate and welfare state agendas and governance structures. The lack of scientific consensus on the ideal form that the welfare state should take to address the climate emergency should not hinder the development of policy options and governance ideas. As stated in the introduction, our starting point is that the welfare state needs to both protect people from climate risks and enable them to mitigate those risks through risk-informed eco-social policies. The next section will set out specific ideas to help achieve this.

3. Policy reflections for new social-ecological protection in the European Union

Building on the abovementioned challenges and opportunities, the following reflections focus on three main areas to tilt the debate to the next stages of political action: *adapt, extend* and *finance* EU-level welfare state policies. Firstly, the authors propose strategic adaptations to existing welfare state frameworks, where the EU's role should be to facilitate and incentivise progressive developments. Secondly, they advocate an ambitious expansion of the welfare state at the European level to address emerging socio-ecological risks. Thirdly, attention turns to securing sustainable financing for these risk-informed eco-social policies, suggesting a central role for the welfare-climate nexus in European financial frameworks such as the Stability and Growth Pact, the Multiannual Financial Framework (MFF), and other investment tools.

3.1 Adapt: Greening the institutions and schemes of existing welfare states

a. Decarbonisation of welfare state sectors

The authors identify a crucial yet underexplored opportunity to systematically decarbonise welfare state sectors, a step essential for any credible climate strategy. The sector accounts for an estimated 5.2% of global emissions (Romanello et al., 2022), yet discourse and policy action remain fragmented and superficial.

An interesting recent Belgian study (Health & Environment, HCWH, Arup, 2025, p. 3), has also identified this important nexus, stating that in 2022 the Belgian healthcare sector emitted 9,901 kt CO_2 per year, accounting for approximately 5% of total emissions. Without new measures, their projections moreover indicate that emissions from the healthcare sector could increase by 60% by 2050.

Addressing the following questions on a whole-of-EU basis would significantly reduce this figure (see for example, Pichler et al., 2019; Berquin, 2021).

- How can hospitals and other buildings be retrofitted and insulated?
- How can patients and staff be protected against heatwaves?
- How can health-related mobility and travel be reorganised to reduce emissions and the climate impact?
- How can medical equipment be redesigned for lower energy consumption? What type of technology is needed?
- How can drug wastage be reduced?
- What type of food (local, organic, etc.) should be offered to patients?

Similarly, the study of the Belgian case suggests ways forward by proposing three pathways to decarbonise the healthcare sector. The first pathway focuses on decarbonising energy by optimising building systems, adopting low-carbon transport, and increasing the use of renewable energies in the healthcare sector. The second pathway focuses on supply chain optimisation, including improving pharmaceutical use and extending the life of medical equipment. The third pathway aims to decarbonise the entire economy by aligning supply chains with strict standards and opting for sustainable suppliers[7].

While many of the abovementioned questions and pathways represent an approachable, straightforward path to decarbonisation, the authors have as yet seen no systematic application of strategies to tackle the issue[8]. Indeed, the Copernicus Climate Change Service (2024, p. 21) has found that progress on health adaptation and climate resilience has stalled due to “low

[7] While these ambitious measures could significantly reduce emissions, they are nowhere near sufficient to make the healthcare sector almost carbon-neutral, as it would still account for 40% of current emissions. This suggests that more radical societal change and a healthcare paradigm shift are needed, but the measures proposed in this study are already rather ambitious and difficult to achieve.

[8] There is a WHO initiative linking climate with health, but only 7 EU members are part of it, and among them only 3 have pledged to achieve carbon neutrality by 2050. See https://www.who.int/initiatives/alliance-for-transformative-action-on-climate-and-health/country-commitments

societal pressure, confidence in existing health systems, and lack of awareness of the links between health and climate change".

Practically, a pioneering EU focus and approach would create this awareness. Following through, a European-wide initiative could be coordinated by national ministries (since health is primarily a national or regional responsibility) but with a clear EU dimension to facilitate mutual learning, as Member States face similar challenges. An EU platform would also strengthen networks of other actors working at the intersection of health and climate change, increasing their visibility and impact.

b. Review of support schemes

The second reflexion is to review existing support schemes (financial programmes, financial incentives, etc.) to identify whether and how they could be used to reduce emissions and protect people from climate emergencies. In this context, the authors propose interventions on welfare coverage of extreme weather days, reskilling, job guarantees and Universal Basic Income.

Here, too, the emphasis is on building on what is already in place in order to generate solutions to new challenges, as this increases their political feasibility. The authors argue that reinterpreting existing schemes for new purposes is often politically easier than creating new frameworks, since it avoids the need for new consensus-building. This straightforward proposal has already been explored in some national contexts. Elbaum (2022) carried out a detailed study of French social protection systems and found that social protection, subject to limitations in ease and flexibility, "can be mobilized (...) to deal with the repercussions on individuals or households of the extension of risks of environmental origin".

A clear example of the risks that would fall under revised support schemes are extreme weather events, which are expected to become increasingly frequent in the future (EEA, 2024). For example, Laurent (2021b) proposes the creation of an ecological social protection system for heatwaves, inspired by existing regulations. Even if the legislation is specific to each Member State, there is still room for coordination at the EU level. This paper therefore suggests a European regulation that would require Member States' social security schemes to cover extreme weather days for the most affected sectors of the economy (construction, for example), allowing workers to be compensated via existing (temporary) unemployment schemes.

The climate emergency will lead to further major changes in the industrial landscape, with the creation of new enterprises and sectors or the restructuring of existing ones. The ongoing restructuring of industry, also through the Clean Industrial Deal, should be addressed taking full account of the emerging social and ecological risks of the industrial transition. As argued by IndustriAll and others, it is essential that there be greater (real) participation of workers and workers' representatives in the planning and management of these changes, including through presenting alternative options. This would ensure workers' support for, and ownership of, the

transition in the workplace and thereby smooth its implementation. Existing social welfare schemes could facilitate this by providing payments and training to workers during the transition. Sound social policy that targets workers by minimising social risk will be key to build the necessary support for the industrial transition (see Opitz et al., 2025).

Finally, the expansion of existing support schemes could also build on experimentation with job guarantees and a Universal Basic Income (UBI). There are already a number of national and local initiatives of this kind, such as the "Territoire zero chômeurs"[9] in France and Belgium; and academics have also shown interest in eco-social variants of the UBI, such as an ecological transition income for personal ecological projects[10] (see, for example, Swanton, 2019; Larruffa et al., 2022; Murphy, 2023). The European Trade Union Confederation (ETUC) has moreover adopted a resolution in favour of a non-compulsory European job guarantee (ETUC, 2023). The EU could serve as a productive platform for further crystallisation of these initiatives, as they will have an important role to play in navigating through the green transformation.

3.2 Expand: An EU layer of social protection to respond to new risks

The second set of policy reflections is more ambitious. We argue that to adapt to the climate emergency and simultaneously mitigate its impacts, a new layer of social protection will be necessary, and even crucial. While national authorities remain the primary actors, the EU is central, given the cross-border nature of climate risks and the spillover effects of Member States' policies, or their absence. For this reason, we analyse here the EU level; we could also consider that every national welfare state should expand to cover the new risks (see, for example, Vielle et al., (2025) for recommendations for the Belgian authorities or Viennot M., et al. (2025) for the French authorities).

This idea is decidedly ambitious, but there is already a clear precedent in the form of the European Globalisation Adjustment Fund for Displaced Workers (EGF). This solidarity fund was set up in 2006 as part of a new European discourse on social policies, in response to widespread fears about the new risks posed by globalisation, reflected in referendums in France and the Netherlands. Modelled on a similar US fund, it intervenes in the event of job losses, by co-

[9] This experiment which started in France in 2017 with 10 territories (now 17), and has now been taken up in Wallonia, with 17 territories, aims to provide work for every unemployed person. See also the association of the same name (only in French) on https://www.tzcld.fr/

[10] This selective approach drastically reduces costs compared to a UBI, making it easier to propose a higher income. Another advantage lies in the increased number of people changing their behaviour and their consumption and production patterns. Unlike the UBI, this approach explicitly aims to encourage certain behaviours deemed positive. As with any approach of this type, the question arises of where to draw the line. Should we also consider care projects, for example? Regarding the care dimension, Laruffa et al. (2021) argue that an eco-social BI should "re-shape the focus of social policy on individuals' capability to 'take care of the world', thus shifting the emphasis from economic production to social reproduction and environmental reparation".

financing re-training. The rules of the fund have been revised twice, its scope has been greatly expanded in the 2021-2027 budgetary period and is likely to grow further (Miro et al., 2023, European Commission, 2025). The European Commission's new proposal (European Commission, 2025) for the EGF aims to provide support and training to workers before they are made redundant. If accepted by the Council and the European Parliament, this will help to anticipate structural economic change[11].

A similar scheme is needed to tackle the effects of the climate emergency. To some extent, this is already happening in the form of the Just Transition Fund (JTF), which was mainly set up to help coal regions manage the social and employment impacts of the coal phase-out[12]. However, the JTF is too limited, in both its scope and its resources, to constitute a real expansion of the welfare state, as required to respond to the new risks. The Social Climate Fund (SCF), which is due to start in 2026, will come closer to the spirit of this EU layer of social protection. It is being set up specifically to protect vulnerable groups from hardship – energy and transport poverty – arising from a new emissions trading system for buildings and transport, through temporary direct income support.

To build on these developments, this paper suggests the creation of an ambitious integrated Social-Ecological Protection Fund to enable implementation of the new regulations proposed above (i.e. social protection for extreme weather events and industrial transition), and in other priority areas such as health, food, etc. Its governance should be closely aligned with the European Fair Transition Observatory, which could oversee implementation and monitor needs through an intersectional lens attentive to gender, age, racial discrimination, and the risk of new inequalities. While ambitious, this fund has a clear justification (addressing new, cross-border risks), precedent (the Globalisation Fund), and emerging direction (SCF and JTF).

3.3 Finance: Updating the European financial framework to new realities

The third set of reflections centres around the EU financial framework needed to deliver the above increase of climate emergency/welfare state spending. The cost of the proposed expansion of the welfare state needs to be understood in relation to the much higher, and growing cost of inaction. Without reforming European economic, budgetary, and taxation rules, a socially and environmentally sustainable transformation is unlikely (Pochet, 2022).

[11] We can in this context also imagine a hybrid scheme, combining elements of the EGF and the SURE mechanism, or more generally an EU-level Unemployment Reinsurance Scheme (EURS). In a draft paper, Ficher et al. (2026, forthcoming) claim that a EURS is needed to tackle labour market issues related to the green transition.

[12] This is very important but reaches a small fraction of those affected by decarbonisation. It covers less than 0.25% of EU employment (Alves Dias et al., 2021 in Galgóczi, 2023).

Reiterating the abovementioned trilemma between fiscal consolidation, green spending, and welfare preservation, we have argued that fiscal consolidation is currently undermining the other two. At the same time, civil society, trade unions, and progressive actors have strongly advocated redirecting political attention away from fiscal consolidation, towards green and social spending. Recent political developments, such as Germany's fiscal reforms and the activation of the national escape clause by the European Commission, open a window of opportunity, although the rise of the security agenda also introduces new financing challenges.

A new holistic financial approach is needed, centring on long-term resilience – and thus green and social investments. There is a consensus among economists that green investments can and should be enabled (Pisany-Ferry et al., 2023), and this consensus is shared by civil society. Democratically, there is growing understanding at the European and global level of the link between climate, inequality and long-term resilience (EIB, 2023; Emmerling et al., 2024; Berhami Sintomer et al., 2025).

Contrary to the portrayed backlash against green policies, moreover, a large majority of Europeans support the green transition (Escrig, 2025). Public perception of green policies should not be assessed in an oversimplified way, but rather looked at with nuance. A recent study by Bruegel has shown that while Europeans continue to be concerned about climate change, they do not trust their governments to deliver on the issue. To regain trust, its authors call for increased efficiency and fairness of public climate policy (Eichhorn & Grabbe, 2025). Ultimately, this efficiency and fairness require financial support for those people most affected by the ecological crisis. Integrating social-ecological risks through eco-social policy – backed by dedicated investment – will enhance democratic backing and drive innovation in risk assessment. In turn, risk-informed eco-social spending will strengthen Europe's resilience – environmentally, socially, and economically.

The next Multiannual Financial Framework (MFF) and its economic governance are the key European levers to unlock this positive dynamic. As outlined by Berhami Sintomer et al. (2025), the size of the budget should reflect the scale of the challenges. The funding gaps in areas of systemic relevance have been known of for a long time, and are growing, while the budget has, since the 1980s, been stuck at 1% of the EU's gross national income. Taking into account a well-documented lack of private investment (Engström, 2025) as well as the risks associated with public-private partnerships (Gabour, 2023), public investment will continue to be a critical funding source for social and economic transformation. Second, Berhami Sintomer et al. (2025) outline that social and ecological priorities need to be better emphasised in this new budget. Similarly, throughout the negotiations, hard-won principles such as Do No Significant Harm (DNSH), but also expanded social and ecological conditionalities and social justice need to be front and centre and cannot afford to be crowded out by technicalities.

4. Conclusion

This paper has developed European policy reflections that can both strengthen national welfare states in their ability to address the climate emergency, and steer actions, bodies and funding at the European level. The central argument is that actions to reduce carbon footprints are essential, and that the welfare state remains the best means of managing the social consequences of this by fulfilling a buffer function. As the effects of the climate emergency on European citizens become more serious, this paper presents the case for an urgent evolution of the welfare state, giving it greater ability to implement change and protect people from new risks.

We have suggested a range of specific actions: the decarbonisation of national welfare states, funding for a European welfare state sector, new directives, new forms of European coordination, and the establishment of monitoring systems. This agenda might seem ambitious, but, as discussed above, the last decade has seen significant innovations in EU social policy, including in its interaction with national welfare states. The reflections put forward in this paper actually address the easier part of the problem. Ultimately, societal change will be needed and political support and alliances are still, at best, in the process of being formed (see, for example, Charbonnier, 2025; Mandelli, 2025). Our policy reflections aim to help close the gaps between social-ecological urgency and current policy frameworks and political dynamics, and ultimately to steer debates around social-ecological protection from framing to political action.

It is also very clear that between the start of writing this article, two years ago, and now at the end of 2025, the political situation has evolved from a defensive climate backlash. Now, progressives face unstable majorities pushing to dismantle hard-won environmental and social rights, all in an attempt to placate the US administration, which actively demands and supports these trends and the political actors that voice them. Political support seems to be at its lowest level, with populist and extreme right parties becoming more and more vocal against the green transition. Nevertheless, it would be an error to view recent trends as the new long-term balance of power. There are several reasons for this. Climate change may be ignored, but will continue to have an increasingly direct negative impact (extreme climate events, among other things). The COP 30 in Belem this autumn has shown that a global consensus still exists. Climate change does not strictly follow the right-left divide: Margaret Thatcher and Angela Merkel were both convinced of the threats from climate change. Doing nothing or slowing down our efforts will only enable China to increase its leadership on green technology.

The ideas and reflections in this publication are not intended as part of a very short-term agenda, but, on the contrary, as a guide for progressive adaptation of welfare states to new challenges (from framing, to public policies and governance).

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