How does the meaning of social welfare change if we take requirements for environmental sustainability in account? Directions for Work Package 1

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Sustainable European welfare societies: Assessing linkages between social and environmental policy

**Work Package 1**: How does the meaning of sustainable social welfare change if we take requirements for environmental sustainability into account?

**Working paper 1: Directions for WP1**

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**Content**

1. Literature review on ecological sustainability and social welfare since Brundtland
2. Key research questions for WP1
3. Suggestions for academic papers from WP1
1. Literature review on ecological sustainability and social welfare since Brundtland

Research into social welfare and ecological sustainability has hitherto been carried out in isolation, without much mutual contact and cross-fertilisation. Welfare is commonly conceptualised in socio-economic terms, in terms of equity, highlighting distributive issues within growing economies in terms of GDP, and social risks such as ill-health or unemployment. Social policy is often conceived as the ‘public management of social risks’ (Esping-Andersen 1990; Gough et al 2008). Western welfare systems were built on class compromises at national levels in the post-war circumstances (Koch 2006), around issues of equity and socio-economic (re-)distribution. Growing capitalist economies were presupposed in most models in order to finance welfare services, via the taxation of the primary incomes of employers and employees. While much current welfare literature circles around the crisis of the post-war or Fordist welfare arrangements and on the readjustments following the 2008 financial and economic crisis, ecological concerns, which had been issued as early as in the 1970s (Meadows et al 1972), keep largely being ignored. The direct and indirect climate change related risks mentioned in Gough et al (2008: 325) are normally not regarded as ‘social risks’ and therefore not as an issue worthwhile taking up in social policy research circles. Yet there is much recent research pointing to the fact that Western production, consumption and welfare standards cannot be generalised to the rest of the world. Tim Jackson (2009: 488), for example, demonstrates that in order to achieve conditions where the entire world population enjoys an equivalent income to EU citizens today, the global economy would need to improve in absolute decoupling of carbon emissions and economic activity by 11.2 percent per year to 2050 and global carbon intensity would need to be less than one percent of its current level. Other authors often allude to the finiteness of natural resources due to which we would need between four and five earths to fuel global production and consumption patterns on the scale of current Western countries.

Hence, from a global perspective, an institutional compromise for a sustainable welfare society would need to go beyond the national scale of the post-war class compromise and encompass the entire globe as well as other social groupings than classes. Though the focus of our project is on the national level, analyses should nevertheless reflect and be carried out against the background of the debates on international and also intergenerational justice in relation to climate change and other environmental challenges. Jackson’s conclusion that Western levels of material standards (including a range of welfare standards) are not compatible with core principles of ecology – and neither with those of global and intergenerational justice – was, to
some extent, already reflected in the original ‘Brundtland report’ from 1987: ‘Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.’ (WCED 1987) As a corollary, it is necessary to question and perhaps redefine predominant Western ideas of welfare (Koch 2013) and prosperity (Jackson 2009; Fritz and Koch 2014) and to reduce the energy and matter throughput of our production and consumption practices in order to converge with developing countries in the future. The overall theoretical concern of WP1 should therefore be **what it requires to make existing welfare societies ecologically sustainable.** And the application gives us a clue as to how we should go about in dealing with this issue: We promise to ‘review and synthesise what existing theoretical and empirical research says about the potential impact (a) on the environment and aspects of human well-being of pursuing economic growth to fund welfare provisions and other common goods; (b) impacts on social welfare (well-being, inequality and poverty) of measures to mitigate climate change / environmental degradation’.

Following the application, I use the literature on sustainable development since Brundtland as starting point for exploring these issues, followed by more recent contributions, for example from ecological economics and degrowth.

**Sustainability as defined in the Brundtland report**

In an influential evaluation of the Brundtland report Sneddon et al (2005) emphasised that it ‘helped set in motion what many now argue are the three mutually reinforcing and critical aims of sustainable development: the improvement of human well-being; more equitable distribution of resource use benefits across and within societies; and development that ensures ecological integrity over intergenerational timescales’ (255-6). These authors not only emphasise that sustainable development (SD) ‘remains the most tenable principle of collective action for resolving the twin crises of environment and development’ but also highlight that it offers ‘an attractive, perhaps the only, alternative to conventional growth-oriented development thinking.’ (Sneddon et al 2005: 256) But perhaps the broadness of the concept of SD, often seen as its main strength, is at the same time its severest weakness. Particularly, critics point to ‘SD’s fundamental lack of attention to the powerful political and economic structures of the international system that constrain and shape even the most well-intentioned policies’ (Sneddon et al 2005: 256) and therefore call for a systematic consideration of ‘the role of power, from local to global scales’. A further shortcoming of ‘Our Common Future’ is the assumption that ‘equity problems could and would be solved by growth while the net growth since Brundtland
has largely been accompanied by increased inequity.’ (Sneddon et al 2005: 263) More recent analyses of patterns of global inequality confirm this critique (Milanovic 2005; Koch 2012: 137-154; Piketty 2014). The perhaps most fundamental problem with the original SD approach is its almost imperturbable believe in economic growth as cure to almost any social and ecological issue and, particularly, in the feasibility of absolutely decoupling economic growth from material resource use and carbon emissions. While there is some empirical evidence for relative decoupling (decline of resource intensity relative to GDP) there is no evidence whatsoever for an absolute decline in resource use and carbon emissions (Jackson 2009; Koch 2012: 123-130). Yet to stabilise climate change on relatively optimistic assumptions, nothing short of absolute decoupling would be necessary. This had led environmental economists such as Herman Daly (1990: 1-6) early on to reject the concept of SD as a ‘bad oxymoron’ on the grounds that on a planet characterised by limited resources, continued growth cannot be sustained. Similarly, more recent reviews of SD as conceptualised in the Brundtland report suggest this is ‘a concept in chaos’ (Vallance et al 2011: 342) and in ‘lack of robustness’ (Missimer et al 2012: 1107).

A more positive, and for our purposes maybe especially interesting, interpretation is offered by Oluf Langhelle (1999: 130; see Brandstedt 2013: 50), who generally argues that ‘Our Common Future is more coherent and potentially more radical than either adherents or critics seem to be aware of.’ Langehelle points to the fact that SD has two sub-concepts, namely the ‘concept of human need, especially those of the world’s poor, to which overriding priority should be given; and b) the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs’ (WCED 1987: 43). Hence, the Brundtland report defines ‘absolute limitations’, that is, ‘the ultimate limits to global development are said to be determined by two things: the availability of energy and the biosphere’s capacity to absorb the by-products of energy use’ (Langhelle 1999: 137) In his PhD thesis, Eric Brandstedt (2013: 63) argues that the ‘discovery’ that ‘human aspirations for the good life are shared globally’ is down to the Brundtland report. As a corollary, we ‘need to find a morally acceptable compromise between living conditions globally and over time’, and to ask how we can ‘engage in future-oriented activities and aspirations without at the same time denying others that opportunity’. The strengths of the Brundtland report emphasised by Langhelle and Brandstedt can indeed illuminate our own research efforts.
Post-Brundtland theory traditions relevant for the conceptualisation of sustainable welfare

While the assumption from the application that comparative welfare research can learn from existing scholarship on SD – ranging from conceptual issues to the ecological and economic implications of global environmental challenges and issues of governance and legitimacy (Lafferty and Hovden 2003; Le Blanc 2011; Meadowcroft et al 2012; Dryzek 2013; Bäcksstrand and Kronsell 2015) – is certainly constructive, we should also consider how traditional and recently revised concepts of welfare and wellbeing may contribute to the rethinking of SD principles and goals. Various disciplines including social policy, ecological economics and philosophy have already started to conceptualise welfare, prosperity and happiness in alternative ways (Sen 1984; Layard 2005; Nussbaum 2006; Victor 2008; Soper et al 2009; Stiglitz et al 2010; Kasser 2011; Koch 2013). While these contributions are fragmented and in need of integration, they share the hypothesis that much of what is required for welfare and human flourishing is non-material once a decent material standard of living is attained, and that this is achievable at much lower than current levels of matter and energy throughput. It is certainly a promising task for WP1 and beyond to review, synthesise and further develop the state-of-the-art on the concepts of welfare and wellbeing under conditions of ecological sustainability.

Social policy scholars have highlighted the social consequences of unfettered capitalism such as unemployment, inequality, anomie and exclusion that require socio-economic regulation and targeted social policies (e.g. Gough 1979). Yet, as ‘eco-marxist’ authors such as Burkett (1999), Foster (2000), O’Connor (1998) and Clark and York (2005) have pointed out, capitalism as a mode of production is also bound up with a range of structural tensions between the logics and imperatives of the economic and of the ecological system. Elaborating on Marx’s original critique of political economy, these authors highlight the economic system’s orientation towards unlimited and short-term valorisation, quantitative and geographic expansion, circularity and reversibility, while the principles that guide the ecological system involve stable and sustainable matter and energy transformations and throughputs as well as irreversibility (see for a review, Koch 2012: 25-36). Though the mentioned authors in the classical Marxian tradition succeeded in demonstrating that capitalist development proceeds in not only economically and socially (perhaps surprisingly, this is also reflected in Streeck 2014), but also in ecologically contingent forms, they do not always seem to be aware of the extremely high level of abstraction where Marx’s mode of production is located. Hence, in relation to climate change, this research perspective generates the far from irrelevant result that rising CO2 emissions and the associated
increase in material and energy throughput are linked to capitalism’s general and long-term trend towards an increased scale of production. Yet it cannot account for the fact that Sweden’s CO2 emissions are considerably below that of the US.

There is an emerging literature on the issues about if and why certain institutional features and the associated ‘varieties of capitalism’ correspond to different amounts of CO2 emissions, to which we could relate and contribute both in theoretical and empirical terms. Institutional theories deployed in hitherto research on environmental regulation and ecological performance include regulation theory (Koch 2012), theories of capitalist diversity and change (Buch-Hansen 2014) as well as welfare regimes (Gough et al. 2008; Koch and Fritz 2014). Core concepts of regulation theory (Boyer and Saillard 2002) such as ‘accumulation regime’ including conceptualisations of production and consumption norms, ‘mode of regulation’ and ‘institutional forms’ have been complemented by the notion of ‘energy regimes’ and environmental regulation (Koch 2012: 36-48), which allowed for an empirical and comparative analysis of CO2 emissions in accordance with the production and consumption patterns in the two main post-war capitalist growth strategies: Fordism and finance-driven capitalism. Indeed, without an adequate concept of the financialisation (and also of transnationalisation) of investment and capital accumulation and the corresponding transnational actors much of the current attempts to regulate climate change in the form of carbon markets (the EU ETS) could not be fully understood (Lohmann 2010; Paterson 2011; Koch 2012 and 2014).

Applying theories of capitalist diversity and institutional change, Buch-Hansen (2014) discusses ‘degrowth strategies to steady-state economies’. Liefferink et al (2009) produced a comparative study on the policy output of twenty-four countries during the period 1970–2000, highlighting high environmental problem pressures, (neo-)corporatist institutional structures, EU membership and a high level of economic development as favourable to the advancement of environmental regulation. In relation to greenhouse gas emissions, Christoff and Eckersley (2011) found that domestic political institutions (proportional representation versus first-past the-post electoral systems and the presence of green parties in parliament and government) and corporatist systems that include business and labour play important roles. The study pointed out that while national vulnerability to climate change is a poor indicator, both reliance on fossil fuel extraction and energy-intensive industry heighten opposition to carbon reduction. A hypothesis that is perhaps worthwhile testing further results from recent comparative research into
‘prosperity’ – operationalised as environmental sustainability, social inclusion and quality of life – which suggests a positive link between the extent of civic participation in a country and its environmental performance (Fritz and Koch 2014). This is above all the case in Switzerland performing best on all of the three used indicators of prosperity. However, a clear pattern between ecological performance and environmental regulation, on the one hand, and welfare and other institutional features, on the other, has as yet not been established. Conversely, what has been confirmed in a range of studies since Jackson’s Prosperity without Growth is the close connection between economic development measured in GDP and environmental stress. It is worthwhile noting that there are non-European countries like Costa Rica and, less so, Uruguay that manage to perform relatively well on social indicators such as life expectancy and subjective well-being and at the same time display much lower levels of GDP and ecological damages (Fritz and Koch 2014).

Hence, while our project should certainly make a contribution to the still young discussion on the role of capitalist diversity and various institutions in the provision of welfare and sustainability, I would recommend to also considering the growth-critical literature; or, to use Ian Gough’s terms, not only green growth or ecological modernisation approaches, powerfully advocated in EU circles for the analysis and evaluation of government reactions to climate change, but also degrowth approaches. Indeed, since ecological sustainability does not seem to be achieved in growing economies for the time being, growth-critical scholars discuss the feasibility of providing ecological and social sustainability in non-growing economies. Beyond the neoclassical tradition, economics has not always been interpreted as synonymous with a science of prices and the growth of monetary value (De Gleria 1999). Herman Daly’s ‘steady-state economy’ (SSE) is a useful theoretical perspective for an adequate consideration of ecological sustainability in the economic cycle (Daly 1977). Instead of GDP growth, which is a value index of the physical flows in an economy, the point of departure of a SSE, a primarily physical concept, is that of a relatively stable population and ‘artefacts’ (stock of physical wealth) and the lowest feasible rates of matter and energy throughput in production and consumption. The scale of the economy does not erode the environmental carrying capacity over time. Daly is not in favour of abandoning growth in all sectors of the economy but of viewing this as a ‘process to be consciously and politically monitored and regulated’ (Barry 2012: 133). This is reflected in Daly’s distinction between ‘growth’ and ‘development’, whereby the former refers to a quantitative increase of GDP, and the latter to qualitative change. Continued
technological advances in combination with shorter working hours facilitate the maintenance of high living standards with relative low resource consumption and carbon emissions (Jackson and Victor 2011; Koch and Fritz 2013). The goal of a SSE is supported by environmental economists and much of the degrowth-research community. Degrowth researchers also point to the link between ecological sustainability, social equity and individual wellbeing by defining ‘degrowth’ in terms of ‘an equitable downscaling of production that increases well-being and enhances ecological conditions at the local and global level, in the short and long term’ (Kallis 2011; Schneider et al 2010). The degrowth community’s Paris Declaration emphasised the quality of life, the fulfilment of basic human needs, equity, increased free time, conviviality and participatory democracy (Research and Degrowth 2010).

For the sake of developing an interdisciplinary concept of sustainable welfare, recent contributions from disciplines as different as epidemiology, consumption research, the psychology of wellbeing and the philosophy of needs and capabilities suggest treating ecological sustainability, social equity as well as individual wellbeing and the quality of life together. There is ample evidence that people in more equal and socially inclusive societies are better-off and report greater amounts of wellbeing than in more unequal ones where status competition is particularly pronounced (Wilkinson and Pickett 2010). Consumption researchers argue that in rich countries buying things is not in the first place about the goods themselves but rather about the symbolic message that the act of purchase conveys (Soper et al 2009). What Hirsch (1976) called the competition for ‘positional goods’ is mediated through a genuinely social logic that Bourdieu (1984) referred to as ‘distinction’. This general societal race to determine the legitimate taste is by definition short term, does not contribute anything to human wellbeing in the long-term and contradicts the principal reproductive needs of the earth as an ecological system (Paech 2012), since consumption practices are normally bound to matter and energy transformations and necessitate the burning of fossil fuels. Wellbeing and quality of life research assumes that humans must have certain psychological needs satisfied in order to flourish and experience personal wellbeing (Kasser 2009). These needs include feeling safe and secure as well as competent and efficient. People also require love and intimacy and struggle under conditions of loneliness, rejection, and exclusion. Yet where ‘economic growth is a key goal of a nation’ (Kasser 2011: 195), with its encouragement of self-enhancing, hierarchical, extrinsic and materialistic values, the fundamental needs required for human wellbeing are undermined. The theme has also been taken up by Doyal and Gough’s theory of human need (Doyal and Gough
Nussbaum’s philosophy. Nussbaum (2006) proposes a list of ten central human capabilities needed for the quality of life of each and every person, ranging from physical health and integrity to the control of one’s environment. Understood as the basic elements of a good human life, many of these needs are interrelated and complementary and some of them are limited and finite. It is worthwhile noting that most of the elements on Nussbaum’s list of central human capabilities require few, if any, material resources, allowing for a surplus in welfare and prosperity for one person or one generation while still leaving room for the development of others. Conversely, ‘consumption patterns and lifestyles which harm the central functioning capabilities of others’ are incompatible with Nussbaum’s perspective (Page 2007: 466). Finally, the concept of Buen Vivir or the ‘good life’ is central to political attempts to initiate a socio-ecological transformation in Latin-American countries such as Uruguay or Bolivia (Vega Camacho 2012). European social-policy reasoning may be able to learn from these approaches and it might be useful to take these up in our project.

To conclude this section, I would like to mention the new field of ‘sustainability science’, which emerged from disciplines such as cultural and human ecology, environmental anthropology as well as political ecology and environmental economics. Of special interest for social policy and welfare researchers is perhaps the fact this new field sees itself as a bridge not only between natural, social and cultural sciences but also between the sciences in general and society as well as between knowledge and action: ‘Problem-driven, practice-oriented, and contextually sensitive, sustainability science involves linking critical research approaches with problem-solving approaches, ideally appreciative of various perspectives including local/traditional knowledge for framing problems, and for design, implementation, and evaluation of solutions.’ (Clark 2014: 1) Hence, sustainability science aims to move even beyond multi- and interdisciplinary research to transdisciplinary practice.

The ‘double injustice’ and eco-social policies
Environmental and specifically climate policy targets raise questions about fairness, since they have distributive consequences and hence implications for social justice and social policy (Walker 2012). Often responsibilities and impacts do not coincide and constitute a double injustice (Gough 2011 and 2013), since the groups and populations likely to be most harmed by CC are the least responsible for causing it and have the least resources to cope with the consequences (Büchs et al 2011). The arising distributional dilemma has so far largely been
studied at global level with focus on the responsibilities of developing and developed countries. Yet this dilemma also surfaces in European countries. Due to their higher consumption levels, one must expect that households situated in the upper part of the income distribution contribute more to CO2 emissions than lower income households, while poor households suffer most from environmental degradation (e.g., through poorer housing, risk of flooding etc.) and are disproportionately burdened by the costs of CC policies (Pye et al 2008; Büchs and Schnepf 2012). It would therefore be worthwhile raising questions such as the following: How do the burdens of climate policies in relation to household income compare across European countries? Are such burdens proportional to the impact on the environment of different lifestyles? How can social policies be designed such that unjust distributional effects are avoided? Here is an obvious connection to WP2 which could measure the distributional effects of CC mitigation policies on the basis of the distribution of emissions across different social groups, existing CC mitigation and social policies.

Based on such empirical results we could then consider complementary and/or alternative social policies to reduce the ‘double injustice’ of CC and social exclusion. A first review the state-of-the-art of the existing literature on eco-social policies (Fitzpatrick 2011; Büchs et al 2011) suggests that the following policy areas may be most relevant: (a) carbon redistribution policies, particularly personal carbon allowances and trading schemes; (b) redistribution policies of work time, income and wealth to reduce consumption, to redistribute working hours more evenly across gender and age groups, and to enable a better balance between paid work, care and voluntary work; and (c) alternative uses of revenues from mitigation policies. (Ad a) One way of redistributing carbon is through some form of Personal Carbon Allowances and Trading (PCT). Though there are a number of such proposals, all entail a cap on a country’s total carbon emissions (decreasing every year) and a division of this amount into equal annual allowances for each resident (Gough and Meadowcroft 2011). Though such schemes are principally progressive, more research is necessary on equality-related aspects, particularly for people currently living in energy inefficient housing. (Ad b) There is evidence that highly unequal societies have on average a greater carbon footprint than more egalitarian societies and that, all other things being equal, further expansion of inequality and consumption is accompanied by an increase in carbon emissions. Hence, work time reductions and flexibilisation and redistribution policies of income and wealth might be advisable to break the habit of working to earn and consume, to redistribute work time more evenly across gender and age groups, and to enable a
better balance between paid work and care and voluntary work (Koch and Fritz 2013). (Ad c)

According to Büchs et al (2011), there are four possible ways revenues from carbon taxes or trading can be distributed. First, if these revenues are not earmarked for redistribution, such policies are likely to have highly regressive effects. Second, if the revenues are earmarked for further greenhouse gas reductions and/or support for behavioural adaptation, the distributional effects depend on who these programmes benefit. Means-tested home insulation programmes like the Warm Front programme in the UK benefit low-income households, and subsidies for public transport typically benefit low-income urban households. Third, the revenues can be fully redistributed to the population and/or industry. If the revenue is returned to citizens by increasing specific social security benefits, regressive effects can be substantially reduced. Fourth, returns from mitigation policies can be directly redistributed to individuals and/or households as lump sums to individuals or households. Most PCT schemes argue for this option, which is likely to be highly progressive: low income households generally gain more or lose less in proportion to income than do high income households, since any individual who consumes less than the capped level of emissions stands to gain from the rebate.

2. Key research questions for WP1

The brief literature overview above suggests that the main task of WP1 should be to conceptually overcome the split in research into environmental sustainability and social welfare and to develop a concept of sustainable welfare. For this aim it is advisable to explore the following issues, whereby the first three are more theoretical and the last three more policy related:

- How can the concept of welfare be understood when ecological imperatives are considered? How can basic human needs be satisfied both in global and intergenerational perspective?
- What direct and indirect effects and patterns of social risks are current and future environmental trends posing to existing welfare states?
- How can welfare solutions be understood if environmental limits are taken seriously?
- What affects do various forms of existing welfare solutions have on environmental issues? Is the welfare state actually detrimental to the pursuit of environmental goals, since – all other thing being equal – the increase and distribution of primary incomes enables more social groups to engage in environmentally harmful lifestyles?
• Environmental issues have social implications such as the double injustice. What kind of countervailing social policies are necessary to tackle this injustice?

• How can the welfare state be used to promote new types of environmental friendly solutions? What positive role could the (welfare) state in general and the education system in particular play in establishing and generalizing low-carbon and ecologically sustainable lifestyles?

3. **Five suggestions for academic papers from WP1**

These research questions could be studied in a sequence of academic papers two of which would need to be written in cooperation with WPs 2 and 3:

a) The concept of sustainable welfare in the perspective of human need, capabilities and global and intergenerational justice

Against the background of the traditional national and class-based welfare concept, it would be interesting raising the question what it would take to make welfare sustainable in a global and intergenerational perspective. Subquestions would include: a) the appropriate level of developing and measuring welfare (global, national, local); b) the appropriate scope of the welfare state (whose welfare should be provided?). In order to answer these questions theories of human need, capabilities and of global and intergenerational justice would need to be scrutinised in relation to their potential of contributing to a theory of sustainable welfare.

B) Welfare, sustainability and degrowth

Sustainability and degrowth approaches, on the one hand, and welfare theories, on the other, have been developed without interaction / cross-fertilisation. The growth-critical literature does not provide a systematic discussion, let alone conceptualisation, of the notion of human need and welfare. Conversely, the welfare literature does normally not consider the imperatives of the international political economy and the need to downscale in order to make it compatible with ecological boundaries. Hence, one could first ask how the notions of need and welfare are reflected in the growth-critical literature and then identify the extent to which issues raised in sustainability and degrowth discourses are raised in approaches relevant to welfare and need such as Doyle & Gough, Nussbaum or Max-Neef. Thirdly, one
could try to integrate the two perspectives in the perspective of a generalisable welfare approach that would aim at ensuring the satisfaction of basic human needs across the planet.

C) Climate change as social risk: new challenges for and necessary recalibrations of existing welfare states
While contemporary societies are grappling with the first two generations of risks (unemployment, sickness, work related injuries and old age as well as individualisation and changing demographic structures), IPCC reports highlight CC as having serious impacts on food security, health, migration and poverty. Similarly, political strategies to mitigate CC and de-carbonise socio-political institutions potentially contribute to new social risks while affecting and transforming existing ones. Hence, this paper would discuss if and to what extent a new generation of social risks is emerging, and what types of welfare arrangements these new risks demand. Corresponding recalibrations for existing welfare states could be outlined in general ways. Policy suggestions for concrete eco-social policies such as those following from the Greenhouse Development Rights Framework could be taken up.

D) Double injustice and eco-social policies (in cooperation with WP2)
Climate policy targets raise questions about fairness, since they have distributive consequences and hence implications for social justice and social policy. Often responsibilities and impacts do not coincide and constitute a ‘double injustice’, since the groups and populations likely to be most harmed by climate change are the least responsible for causing it and have the least resources to cope with the consequences. The arising distributional dilemma does not only surface in the relation of developing and developed countries but also in Europe. Due to their higher consumption levels, one must expect that households situated in the upper part of the income distribution contribute more to CO2 emissions than lower income households, while poor households suffer most from environmental degradation (e.g., through poorer housing, risk of flooding etc.) and are disproportionally burdened by the costs of CC policies. Hence, in cooperation with WP2, a paper could measure the distributive impacts of selected climate policies and suggest corresponding countervailing social policies.

E) Multi-level decision making and the reconciliation of economic, social and environmental policies (in cooperation with WP3)
This paper would deal with the real-world of providing ‘sustainability’ through reconciling economic, social and environmental policies at EU, national and local levels. It would interpret the empirical results from WP3 from an EU governance and rescaling perspective and identify synergies and conflicts across policy domains at the three levels.

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