



WIRTSCHAFTS
UNIVERSITÄT
WIEN VIENNA
UNIVERSITY OF
ECONOMICS
AND BUSINESS

Halliki Kreinin

Typologies of “Just Transitions”: Towards Social-Ecological Transformation

Working Paper Series
35/2020

Typologies of “Just Transitions”: Towards Social-Ecological Transformation

WORKING DRAFT

Published in Kurswechsel 1/2020

<http://www.beigewum.at/kurswechsel/jahresprogramm-2020/heft-12020-climate-change-and-beyond/>

Halliki Kreinin, Institute for Ecological Economics (WU), halliki.kreinin@wu.ac.at

Just Transition, therefore, is a political response to neoliberalism — whether globalist or nativist — that has been unfolding since the 1970s. As its popularity spreads, an increasing number of initiatives will be labelled as Just Transitions — in the same way that many initiatives have been baptized in the waters of sustainable development. Such isolated events can very well be used to deflect attention from deeply unjust green transitions. Those of us who see Just Transitions as integral components of green transitions must resist these appropriations, even when supported by unions, communities or environmentalists, and commit to turning these events into a politics of social and ecological emancipation. (Stavis, 2018 n.p.)

Humanity is facing many, geographically, socially and hierarchically stratified (but interrelated) crises in the embedded spheres of the environment, society and economy. Climate crises and related environmental catastrophes are the direct result of industrial processes and the current industrial socio-metabolic regime – the set of flows of materials and energy a society needs to reproduce itself (Fischer-Kowalski and Haas, 2016; Fischer-Kowalski and Haberl, 1998). While industrial development has led to huge increases in human wellbeing in the Global North, it is now undermining processes of natural and social reproduction around the world. The latest IPCC (2019) report explains that global temperatures have already risen 0.8-1.2°C above pre-industrial levels due to human activity, making climate-related risks to human and animal health, livelihoods, food security, water supply, and security ever more likely, depending on the severity and speed of temperature changes and human (in)action on the causes of the crises (IPCC, 2019). To stay below 2 degrees warming will require the deep decarbonisation of the economy: net emissions of *global* greenhouse gases (GHG) will have to approach zero between 2050 and 2075 consistent with IPCC findings. Incremental actions and partial decarbonisation projects (like moving from coal to gas) are not enough since all countries must reach close to zero GHG emissions by the second half of this century (Bataille et al., 2016). The needed societal transformation is as profound as the transition from the agrarian to the industrial socio-metabolic regime, and must occur in a much shorter timespan (Haberl et al., 2011; Krausmann et al., 2009). It will also necessarily have to include deep social, economic and political changes challenging existing institutions, habits and norms – as well as the work process itself (Fischer-Kowalski and Haas, 2016; Hildingsson et al., 2019; Littig, 2018).

The “Just Transition” (JT) approach emerged as an answer to balancing human welfare, jobs and the need for deep decarbonisation (Just Transition Centre, 2017). The concept was developed by trade unions in the industrialised world as a unifying rallying cry around the demand that ecological transformation be undertaken in a socially just way. Starting out in the US in the 1970s, it has increasingly been adopted and adapted by different groups, including unions and workers themselves, environmentalists, academics, governments, international institutions and

nongovernmental organisations (Snell, 2018; Stevis and Felli, 2016). While the flexibility of the concept and the easy translatability of “fairness” have arguably been its strength and the reason for its popularity, JT has also been criticised for its vagueness, inoperability in practice, and in particular for being used to fight for various, and sometimes antithetical, conceptualisations of justice (Snell, 2018; Stevis and Felli, 2015). Without negating the political challenges of JTs, this paper will look at divergent types of current formulations of JT, within a modified framework of Hampton’s (2015) trade union climate approaches, which includes 1) “neoliberal political economy/market” (NPE), 2) “ecological modernisation/state” (EM), and 3) “social-ecological transformation” (SET) climate approaches. Different JT approaches are aligned along “Market Policies” and “Just Transition” axes (Figure 1) of which NPE and SET form two extreme approaches. This paper will elaborate on why a radical SET formulation of JT, which moves past only class-based climate approaches (Hampton’s (2015) Marxist Political Economy) to include broader critiques based on environmental justice, degrowth and ecofeminism, is needed to adequately challenge current multiple crises related to the environment and society.

A Just Transition [JT] Typology

JT was founded on the understanding that environmental and social crises are interrelated. It emerged as a radical concept as early as 1973, by workers in the Oil, Chemical and Atomic Workers Union in North America, coinciding with an increased understanding of the threat of the environmental crises and biophysical limits during the era, as well as increased action by environmental groups (JTRC, 2018; Stevis and Felli, 2015). Different trade unions in the 1990s adopted JT, as the concept gradually spread. The Just Transition Alliance was founded in 1997 as a coalition of workers organisations and environmental justice campaigners in North America. The website of the Alliance explains the aims of the organisation as follows:

“Together with frontline workers, and community members who live along the fence-line of polluting industries, we create healthy workplaces and communities... Together, the Just Transition Alliance embodies the process of people of color, Indigenous Peoples, workers, and unions in polluting industries in Canada, Mexico and the U.S. addressing environmental and economic justice issues together.”¹

In the 1990s and 2000s, JT spread to other trade unions and workers’ organisations globally, and was for example used at the Copenhagen Climate Summit in 2009 by the ITUC (International Trade Union Confederation) (Rosemberg, 2010). The language of JT entered the mainstream of climate change debates in the last decade and is now used by “UN organisations, governments, NGOs, indigenous groups, feminist groups, businesses and philanthropists” who associate the term with different things (JTRC, 2018, p. 9). While the growing popularity of JT shows that there is convergence around the reality of environmental concerns and that the burden of transforming to a more sustainable society should not be borne by workers, there are necessarily important cleavages within this broad consensus. As Barca explains, “[s]ome groups simply push for job creation in a greened economy. Others, refusing to abide market solutions, have adopted a radical critique of capitalism. How this schism shakes out will decide whether labo[u]r unwittingly bolsters capital — or confronts capital and climate change” (Barca, 2016).

The struggle between a short-term focus and business alignment, and the fight for radical societal change and politicisation going beyond immediate member interests, are not new fault lines in the history of trade unions. These are also clearly visible in various conceptualisations of JT. The environmental crises urgently reaffirm the need for a workers’ environmental movement going

¹ Just Transition Alliance ‘About Us’: <http://jtalliance.org/about-us/> (accessed: 28.01.2020)

beyond immediate members' interests. Using Hyman's (2001) famous triad of market, state and class-focused labour unions, Hampton (2015) has successfully adapted this typology of ideal trade union types to workers movements' interaction with, and response to, the climate crisis, as the "neoliberal" approach, the "ecological modernisation" approach, and the "Marxist political economy" approach. Hampton contests that only the last, Marxist political economy (or eco-socialist) approach is actually challenging the causes of the climate crisis (Hampton, 2015, pp. 16–56). Building on this typology, it is the goal of this paper to undertake a brief explorative analysis of different narratives of JT through this trichotomy. Building on the Marxist political economy approach with insights from other critical fields, including environmental justice, degrowth and ecofeminism, SET (Social-Ecological Transformation) is used as a third, broader, critical climate approach.

The specific SET formulation used here refers to a radical social-ecological transformation of the current socio-metabolic regime (Asara et al., 2015; Brand and Wissen, 2017a; Pichler et al., 2018). This is different from appropriated concepts of (social-ecological) transformation used to refer to green-innovation-centred incremental transitions within the current economic system (see for example: Sarkar, 2013). The radical SET may "either take on the form of a catastrophic break with industrial metabolism or, if the patterns of energy generation and consumption are radically changed, may result in a new, sustainable sociometabolic regime" (Brand and Wissen, 2017a, p. 4; see also: Haberl et al., 2011). This approach builds on Hampton's Marxist political economy approach by further considering the material and energy basis of the economy and the work process, as well as the position of paid labour in society, opening up "work" as the societal basis of organisation for critique. Elsewhere, Stevis and Felli (2015) have created a framework to analyse different narratives of JT through the concept of environmental justice. They divide JT approaches along two axes: whether the approaches consider "affirmation" of the system (seeking allocation changes) or whether they seek "transformation", as well as whether justice is sought for humans alone or also for nature. The "shared solution" approach (affirmation of the system and justice to humans) corresponds to both neoliberal and EM narratives of environmental crises, while the "social ecological" type (transformation of system and justice to nature) is similar to Hampton's (2015) Marxist political economy approach (Stevis and Felli, 2015, pp. 36–39).

Table 1 – Three “Ideal” Approaches to Climate Change

(Based on: Bernstein, 2002; Ewing, 2017; Felli, 2014a; Foster et al., 2009; Hampton, 2015; Howes, 2018; Machin, 2019; McLaughlin, 2012; Pattberg and Zelli, 2015; Quilley, 2017; Spash, 2016, 2012, 2008, 2007; Stevis and Felli, 2016; Turner, 2014)

	NPE Neoliberal political economy	EM Ecological Modernisation	SET Social-Ecological Transformation
Environmental crises (crisis of natural reproduction)	Externalities to the functioning economic system → will be internalised by market signals and costs.	Externalities to the functioning economic system → must be internalised by state funding and state policy.	Inherent to the expansionist logic of the materials and energy processing system that is the economy. Cannot be externalized or evaluated via prices. Economic value is based on discounting the value of nature.
Social crises (crisis of societal reproduction)	Externalities to the functioning of the economic system → will be internalised by right market signals and prices.	A side-effect of the animal spirits of the market → must be internalised by state regulation [but "private" societal provision and societal reproduction not politicised].	Societal crises and the crisis of societal reproduction are inherent to the expansionist economic system which devalues the work of societal reproduction.
Global Markets	Fair and neutral allocation of resources around the world.	Not always fair and neutral allocation of resources around the world → state intervention needed to ensure best outcomes.	Markets should be embedded within society to serve the purpose of furthering human needs, not be in charge of the allocation of resources.
Justice	Market justice (markets are blind).	Different around the world.	Emancipation of humans and nature, freedom from repression and exploitation (basis of a radical Just Transition).
Economic Growth	The basis of the global economic system and trade.	The basis of societal welfare and increasing wellbeing.	The basis of the global environmental crises through overproduction and overconsumption in the Global North.
Biophysical Limits	Don't exist / Can be recognised and overcome by right market signals.	Don't exist / Can be overcome by innovation and state investment.	The environment is the basis of society and the economy, overshooting biophysical limits will remove the basis on which society and the economy exist.
Tech & Innovation	Important as the driver of global trade and economic growth.	Important as the solution to overcoming environmental problems and continuing economic growth; part of the entrepreneurial state.	Technology can be useful, but is not a panacea or a solution to overcoming biophysical limits, is itself based on energy and materials use, and not politically neutral.
Global Power Relations	Inequalities will be overcome by more international trade and creating more markets.	Strong local government and state policies are needed to help economies in the Global South grow and develop.	Unequal global relations are the result of historic exploitation and colonialism. Development/ international trade can be a continuation of colonial relations and a source of environmental injustice and damage.

Table 1 above shows a general overview of the three different approaches to climate change and environmental crises. The NPE (Neoliberal Political Economy) storyline on climate change has been subject to criticism from many scholars. It can be understood as being predicated on the “promotion and maintenance of a liberal economic order” as the basis and aim of international environmental protection (Bernstein, 2002, p. 1). It comprises of an agreed ideological conviction around the supremacy of the market, the importance of international trade over environmental protection, as well as defining environmental goals and liberal markets as compatible (Pattberg and Zelli, 2015). Through the prism of the neoliberal political economy, the climate crisis is rebranded and depoliticised as a global market failure, with the economic order removed from critical analysis and normalised. Emissions trading schemes, founded on the core tenets of market idealism and neoliberalism, which emerged as the answer to the problem of climate change in developed countries, are an example of NEP. The solution to the crisis is presented as the ‘internalisation’ of market ‘externalities’, the use of market mechanisms and the creation of new markets to solve crises caused by the market system itself (Felli, 2014a, 2014b). Biophysical limits are either considered non-important, or as an externality to the economic system. This approach is encapsulated by

Nordhaus (2015), one of the most prominent “climate change economists” in the mainstream. He suggests that only modest GHG reductions are necessary in the short term, as drastic attempts to decarbonise the economy and stabilise emissions would have a negative effect on global trade and the economy. The so-called optimal path he suggests would have global temperatures approaching 6°C above pre-industrial levels, with both humans societies and the environment around the world facing chaos and irreversible damage (Foster et al., 2009). Perversely, since the environment as well as humans are “priced” according to their economic value in the model, as Spash (2008, p. 2) explains, “Nordhaus speculates that there will be [economic] benefits of extra recreation in the US from a warmer world, but some loss of life elsewhere... dead people in China or India are compensated for by extra golfing holidays in Florida”.

EM (Ecological Modernisation) was born as an answer, or what Quilley (2017) has called a “fudging approach”, to the influential *Limits to Growth* report of the Club of Rome in 1972. *Limits to Growth* cautioned humanity against never-ending growth in production and consumption, and against overstepping Earth’s boundaries to avoid global catastrophe (Meadows et al., 1972). This is the path we are currently on, indicating a systems collapse midway through the 21st century (Turner, 2014, 2008). As prominent EM proponent Howes (2018, p. 15) explains, EM is based on the idea that “governments can assist with the transition to a more sustainable low-carbon economy by using EM to design policies that promote technological innovation, engage with economic imperatives, implement institutional change, improve community engagement and change the public discourse to focus on practical “win-win” scenarios”. The EM narrative is distinct from, but similar to neoliberal narratives of the climate crisis, with a further emphasis on state, a stronger focus on the social implications of climate policy, as well as an increased focus on the importance of technological change, industrial action and innovation in addition to market mechanisms. Depoliticisation and a disregard for power relations within and between countries (i.e. global power relations and global class relations) are part of the foundation of EM (Hampton, 2015, pp. 20–24). The EM narrative focuses on the role of the state and intra-state entities, in helping to ‘internalise’ the environmental ‘externalities’, while still presupposing “the desirability and maintenance of profit and growth as economic priorities” (Ewing, 2017, p. 126). Mazzucato’s (2014, 2011) “entrepreneurial state” is the archetypal green-innovating EM state that helps spearhead more economic growth and production through financing research, commercialisation and innovation. Similar to the neoliberal narrative, environmental problems are side-lined through “double-depoliticisation”: first, business rationality, market competition and innovation are used to replace political dialogue; thereafter, EM is reified as the only feasible “common-sense” strategy which further removes alternative approaches from the drawing board (Machin, 2019, p. 209). EM has predominately focused on local, small-scale symptoms of the crises of the global economic system, rather than the roots of the problem (expansion of economic growth, production, materials and energy use) offering distraction and small-scale solutions to the symptoms, while failing to face or comprehend the disease (Machin, 2019; Quilley, 2017). Crucial to the internal consistency of the EM narrative is a lack of understanding of, or the outright rejection of, environmental and biophysical limits to energy and materials use (McLaughlin, 2012).

The “social ecological” type in Stevis and Felli’s (2015) typology, as well as Hampton’s (2015) Marxist political economy climate narrative, both demand the socialisation of technology production and development, public ownership of fossil fuels, and the relocalisation of production, to take action on environmental crises, while also providing for human wellbeing and emancipation. For this end, labour has to become more confrontational (abandoning win-win scenarios), it has to re-imagine its role in the political economy, as well as embrace “the imperatives of an ecologically just transition” (Stevis and Felli, 2015, p. 39). The ideal SET-type of climate

narrative suggested here additionally considers insights from solidarity economy, going beyond a critique of the types of paid labour performed by labour. Further including ecofeminist perspectives, including a critique of productivism, a concern for North-South relations, an explicit politicisation of the private and social-[re]production work and care work (performed mostly by women), as well as a critique of the primacy of paid labour as the basis of societal organisation itself (Bauhardt, 2014), allows us to consider a transformation past the current industrial socio-metabolic regime, towards human emancipation. Waged labour gained dominance during the industrial revolution, and is currently one of the main mechanisms organising people’s everyday lives, identity and environment (Komlosy, 2018; see also: Aigner et al., 2018). It is also the mediator between society and the social metabolism (humans and nature) (Barca, 2019a), and a major driver of unsustainable economic growth because of production and the productivity trap (Jackson and Victor, 2011), as well as consumption through workplace socialisation, compensatory consumption and conspicuous consumption (Schor, 2008). The “ideal type” of SET climate narrative must critique the logic of the treadmill of production, productivism, and the work relation itself, demanding a move towards prioritising care work and societally reproductive labour, including recommoning (Biesecker and Hofmeister, 2010). In other words, SET sees the democratic reembedding of labour within human creativity, [re]production and nature as its goal (Wainwright, 2014; Bennie and Satgoor, 2018). Crucially, a SET approach to multiple crises includes new visions of society and the “good life” past current consumption and material-based expressions of living well, (including *Zeitwohlstand* or “time prosperity”, for example (Garhammer, 2002)) where human emancipation and needs, not wants, are met in line with biophysical boundaries.

Figure 1 - Different JT Narratives

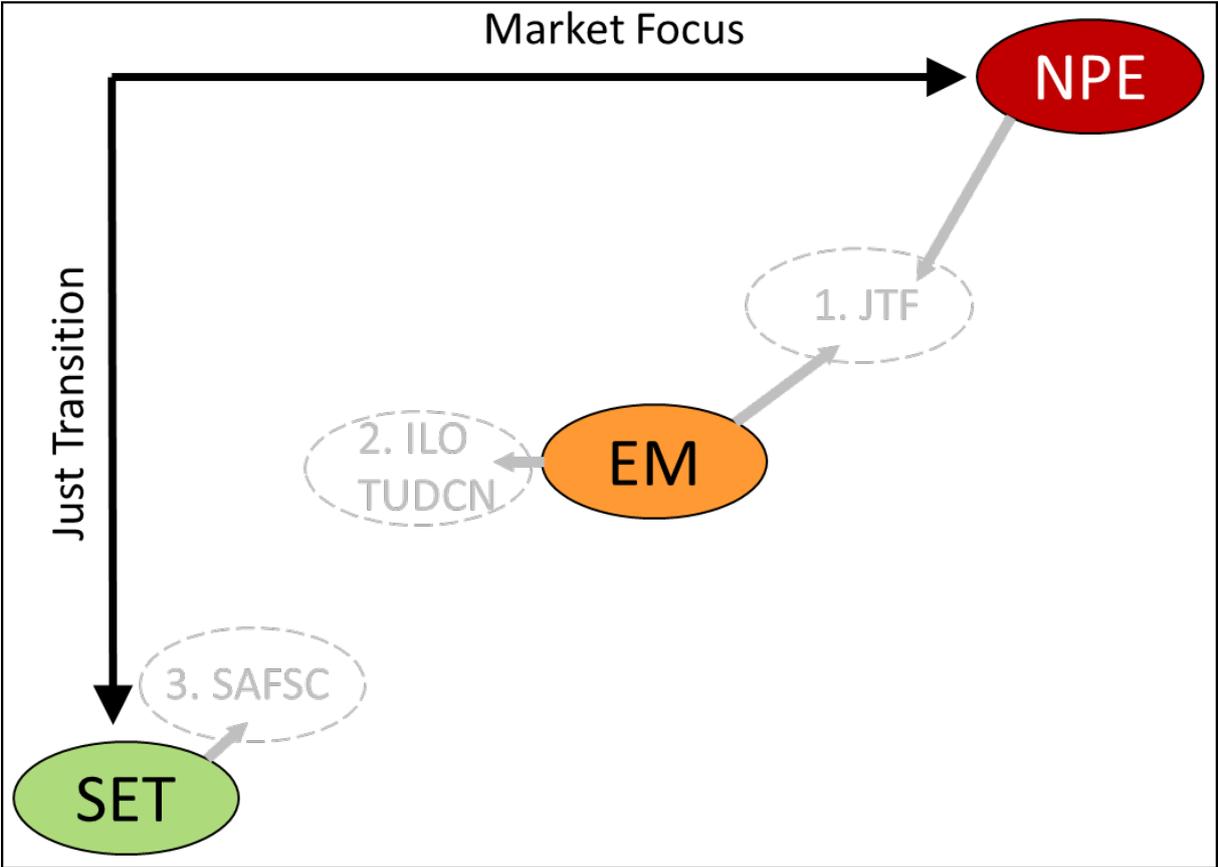


Figure 1 shows the three ideal types of climate narratives (NPE, EM and SET) along two axes – “Market Focus” and “Just Transition”, which reflects the extent to which the economy is prioritised

over society, or vice versa. The place of the different JT approaches on the graph is thus determined by the degree of market-focus (“Market Focus”) over human emancipation (“Just Transition”). Both NPE and SET are at the end of the ideal poles, respectively. EM is somewhat in the middle on both accounts.

The formulation of JT in the European Commission’s *Proposal for a Just Transition Fund*, depicted in Figure 1 as “1. JTF” (EC, 2020a) can be understood as an elaboration of JT with elements of both NPE and EM: it is a limited sectoral, financial and market-based intervention in the fossil-fuel sector, predicated on enabling further economic growth, development and trade, while envisioning an important role for individual Member States. It shows a formulation of JT narrow in both focus and scope. Interestingly however, it presents a move away from the NPE formulation of the climate crisis of the previous Commissions (Bailey and Maresh, 2009). For example, the proposal states that “(i)n order to be successful, the [sustainability] transition has to be fair and socially acceptable for all” recognising that the “most vulnerable are the most exposed to the harmful effects of climate change and environmental degradation” (EC, 2020a, pp. 10, 1). As Article 2 of the Proposal states, it is the objective of the fund to contribute to “enabling regions and people to address the social, economic and environmental impacts of the transition towards a climate neutral economy” (EC, 2020a, p. 13). While the social articulation of both climate inaction and climate mitigation policies point toward an EM narrative, the focus on markets and marketization and supra-national top-down action, set it apart from other JT narratives in the EM camp. The proposal makes clear at the very start of the document that the main ambition of the Just Transition Fund as part of the Just Transition Mechanism and the European Green Deal is to provide above all a “roadmap towards a new growth policy for Europe” (EC, 2020a, p. 1), making environmental considerations a secondary objective. The fund will aim to tackle “the situation of solid fossil fuel extraction activities (coal, lignite, peat and oil shale) but also the transformation of energy intensive industrial processes required by this transition, as regards their social and economic impacts” in order to help foster long-term economic growth, without focusing on overall changes required in the economy (EC, 2020a, p. 7). The fund promises to unlock funding and investment opportunities to governments and companies in carbon-intensive sectors, providing a public loan facility with the European Investment Bank, as well as creating “attractive conditions” for private investors through the ‘InvestEU’ scheme, reaffirming market-based formulations of and solutions to the climate crisis (EC, 2020b, p. 1).

As examples, both the ILO (International Labour Organisation) “Guidelines for a just transition” (ILO, 2015), as well as the Trade Union Development Cooperation Network’s (TUDCN) “Promoting a just transition” report (TUDCN, 2019), demonstrate EM approaches to JT. This is depicted on Figure 1 as “2. ILO TUDCN”. The ILO report emphasises the role of governments in integrating JT visions, through nine aspects: macroeconomic and (green) growth policies, industrial and sectoral policies, enterprise policies, skills development for technological change, health and safety at work, social protection, active labour market policies, workers’ rights, and social dialogue.. It is the role of the government to “align economic growth with social and environmental objectives”, invest in public funds in greening the economy, develop trade and investment policies that “facilitate access to environmentally friendly technology” and “facilitate green innovation and jobs”, as well as encouraging active labour market policies that reskill workers for the green economy (ILO, 2015, pp. 4–11). The TUDCN is an initiative of the International Trade Union Confederation (ITUC) bringing together national trade unions. The TUDCN (2019, pp. 10–11, 40–42) report builds on the ILO guidelines, using the same framework and the same nine avenues for state involvement for JT. Similarly to the ILO report, the document highlights the importance of state involvement, research and spending for technological innovation and product development

for green growth: “in order to achieve sustainable economic development, we have to create the necessary conditions for people to have access to quality jobs by stimulating the economy without harming the environment” (TUDCN, 2019, p. 13). The TUDCN report further provides case studies that it deems as examples of JT both among state industries (EDF in France) as well as private companies (ENEL, Siemens, Inditex). The highlighted cases are in effect minor improvements shown as success stories: the slow planned closure of 23 fossil fuel thermoelectric plants in Italy where 900 workers have been redistributed around the country; or 150 workers who have been retrained by EDF in their UK operations after the closure of a coal energy plant (TUDCN, 2019, pp. 35–38). The Global South is mentioned in both reports in passing, for example in sentences such as: “(t)he greening of economies presents many opportunities to achieve social objectives: it has the potential to be a new engine of growth, both in advanced and developing economies.” (ILO, 2015, p. 4) Historic global power relations and colonialism, and the overwhelming share of emissions by early-industrialised countries, as well as the unsustainability of material consumption levels in the Global North are negated as concerns.

This positive post-development vision of what emancipation in a new sustainable socio-metabolic regime might look like, is necessary for a JT and for human wellbeing, but crucially missing from most trade union approaches in the Global North. The SET conceptualisation of JT might be more difficult for us to imagine in areas where the global relations of power have allowed workers to achieve high material consumption as part of the industrial peace, thanks to exploited labour elsewhere. However, concerns for social and natural reproduction and climate change are being brought up together as part of JT in areas where the capitalist logic of expansion imperils and has already assaulted social reproduction directly. The South African Food Sovereignty Campaign (SAFSC) was established to contest post-apartheid struggles against hunger amongst those suffering under multiple forms of oppression – a basic struggle for the reproduction of society. The SAFSC represents an effort to “contest and build power to transform the food system through grassroots mobilisation, initiative and action”, with a form of “activism and politics through practice and engagement that seeks to build power to push back the frontiers of capitalism and actively construct an alternative” (Bennie and Satgoor, 2018, p. 301). The “Climate Justice through Land Justice” guide of the SAFSC in cooperation with the Co-operative and Policy Alternative Centre (COPAC, 2019), provides an SET-type narrative of JT. This is depicted on Figure 1 as “3. SAFSC”. In the “Guiding Principles for a Deep Just Transition Pathway to Land Justice and Food Sovereignty” section of the guide, seven principles for a “deep” JT are expanded on (including the rights of nature, solidarity, freedom from racial or gender oppression, and democracy), thereafter a land-use and political mobilisation plan are developed (COPAC, 2019, pp. 67–74).

Conclusion

Overall, both the neoliberal and EM articulations of the crises and proposed solutions are severely limited in achieving the radical changes required by multiple crises facing society. This is because challenging the root causes of the crises – unlimited appropriation of material resources and global labour power, as well as a disproportionate claim to global sinks (Brand and Wissen, 2017b) – which form the basis of the functioning of the current global economic system, is outside the remit of possible action. There is ample literature in the growing field of environmental labour studies critiquing the predominantly EM narrative within trade union approaches to the environment and JT (i.e. for example Barca, 2014; Rätzl and Uzzell, 2011; Rosemberg, 2013; Snell and Fairbrother, 2010; Soder et al., 2018; Stevis and Felli, 2016). Deindustrialisation, outsourcing and societal polarisation have shifted the balance from labour in the favour of capital, making the ability of labour organisations to adequately respond to the more long-term environmental crises (in the face of short-term threats) more difficult (Barca, 2019b). It is no wonder that with this backdrop, the

win-win scenario of EM has seduced most trade unions and workers organisations. Solace from the severity of the crisis, unwanted political combats with business, and liberation from the weight of required action, are all in short supply. Yet while rising economic growth, productivity and full employment were important in providing worker welfare and industrial peace (Fraser, 1999; Hyman, 2001), economic growth as a panacea to inequality and societal crises is in peril regardless of environmental crises. The spectre of secular stagnation and the crisis of social reproduction are further signals that a transformation in the system is needed (Jackson, 2019; Palley, 2012; Summers, 2015).

Blühdorn (2017, p. 42) is right to emphasise that a bright new dawn of eco-socialism is not necessarily in sight, even if there are cracks in the system, including “accelerating climate change, the unrestrained exploitation of natural resources, the precariousness of the global financial system, the public and private debt crisis, ever higher levels of social inequality, rapidly eroding trust in political elites, the challenges of mass migration, proliferating movements of populism and so forth”. An end to societal peace brokered on the promise of mass consumption and rising material and energy use, is on the horizon at some point, yes. But authoritarianism, petro-masculinity (the “toxic combination of climate denial, racism and misogyny” (Daggett, 2018)), as well as outright fascism and eco-fascism (Dyett and Thomas, 2019; Lawton, 2019; Lubarda, 2020) offer increasingly popular and powerful, counter-emancipatory solutions to the complex crises². These developments highlight the importance of lucid thinking amongst those fighting for societal wellbeing when it comes to the magnitude of the environmental crises, the different narratives of climate change (what is hidden, challenged and revealed?), as well as the challenges and opportunities posed by a social-ecological transformation. This is necessary to envision new emancipatory ways of organising society and social reproduction in a sustainable way.

Acknowledgements:

Ernest Aigner, MSc, was instrumental in the process of writing this paper, including providing multiple rounds of feedback on the conceptualisation and framework elements. Many thanks also to Dr Stefanie Gerold for her continued support and feedback on previous drafts.

Bibliography

- Aigner, E., Gerold, S., Kreinin, H., 2018. Sustainable Work, Towards a Socio-Ecological Transformation of the Economy: Background report for the Growth in Transition Conference “Europe’s Transformation: Where People Matter” in Vienna, 14–15 November 2018. Federal Ministry for Sustainability and Tourism, Directorate-General IV – Climate, Directorate IV/3 – Sustainable Finance and Regional Economic Policy, Directorate IV/6 – EU Coordination Climate and Environment Stubenbastei 5, 1010 Wien, Vienna.
- Asara, V., Otero, I., Demaria, F., Corbera, E., 2015. Socially sustainable degrowth as a social–ecological transformation: repoliticizing sustainability. *Sustain. Sci.* 10, 375–384. <https://doi.org/10.1007/s11625-015-0321-9>
- Bailey, I., Maresh, S., 2009. Scales and networks of neoliberal climate governance: the regulatory and territorial logics of European Union emissions trading. *Trans. Inst. Br. Geogr.* 34, 445–461. <https://doi.org/10.1111/j.1475-5661.2009.00355.x>
- Barca, S., 2019a. The Labor(s) of Degrowth. *Capital. Nat. Social.* 30, 207–216. <https://doi.org/10.1080/10455752.2017.1373300>
- Barca, S., 2019b. Labour and the ecological crisis: The eco-modernist dilemma in western Marxism(s) (1970s–2000s). *Geoforum* 98, 226–235. <https://doi.org/10.1016/j.geoforum.2017.07.011>

² The latter is visible in the rhetoric of the conservative Austrian Chancellor Sebastian Kurz (ÖVP) (Jones, 2020). Kurz has managed to take ground from the far right with increasingly racists and hostile statements, as well as move towards green and climate concerns, by combining fear of the other, fear of the loss of mass consumption and material welfare, and fear of environmental crises.

- Barca, S., 2016. Labor in the age of climate change. Jacobin.
- Barca, S., 2014. Environmentalists and workers of the world, unite! Roar Mag. Accessed 1.
- Bataille, C., Waisman, H., Colombier, M., Segafredo, L., Williams, J., 2016. The Deep Decarbonization Pathways Project (DDPP): insights and emerging issues. *Clim. Policy* 16, S1–S6. <https://doi.org/10.1080/14693062.2016.1179620>
- Bauhardt, C., 2014. Solutions to the crisis? The Green New Deal, Degrowth, and the Solidarity Economy: Alternatives to the capitalist growth economy from an ecofeminist economics perspective. *Ecol. Econ.* 102, 60–68. <https://doi.org/10.1016/j.ecolecon.2014.03.015>
- Bennie, A., Satgoor, A., 2018. Chapter 14 Deepening the Just Transition through Food Sovereignty and the Solidarity Economy, in: Satgar, V. (Ed.), *The Climate Crisis: South African and Global Democratic Eco-Socialist Alternatives*. Wits University Press. <https://doi.org/10.18772/22018020541>
- Bernstein, S., 2002. Liberal Environmentalism and Global Environmental Governance. *Glob. Environ. Polit.* 2, 1–16. <https://doi.org/10.1162/152638002320310509>
- Biesecker, A., Hofmeister, S., 2010. Focus:(Re) productivity: Sustainable relations both between society and nature and between the genders. *Ecol. Econ.* 69, 1703–1711.
- Blühdorn, 2017. Post-capitalism, post-growth, post-consumerism? Eco-political hopes beyond sustainability. *Glob. Discourse* 7, 42–61. <https://doi.org/10.1080/23269995.2017.1300415>
- Brand, U., Wissen, M., 2017a. Social-Ecological Transformation, in: Richardson, D., Castree, N., Goodchild, M.F., Kobayashi, A., Liu, W., Marston, R.A. (Eds.), *International Encyclopedia of Geography: People, the Earth, Environment and Technology*. John Wiley & Sons, Ltd, Oxford, UK, pp. 1–9. <https://doi.org/10.1002/9781118786352.wbieg0690>
- Brand, U., Wissen, M., 2017b. The Imperial Mode of Living, in: *Routledge Handbook of Ecological Economics*. Routledge. <https://doi.org/10.4324/9781315679747.ch15>
- COPAC, 2019. *Climate Justice Through Land Justice A Food Sovereignty: Activist Guide*.
- Daggett, C., 2018. Petro-masculinity: Fossil Fuels and Authoritarian Desire. *Millenn. J. Int. Stud.* 47, 25–44. <https://doi.org/10.1177/0305829818775817>
- Dyett, J., Thomas, C., 2019. Overpopulation Discourse: Patriarchy, Racism, and the Specter of Ecofascism. *Perspect. Glob. Dev. Technol.* 18, 205–224. <https://doi.org/10.1163/15691497-12341514>
- EC, 2020a. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the Just Transition Fund, Document 52020PC0022.
- EC, 2020b. *The Just Transition Mechanism: Making Sure No One Is Left Behind*.
- Ewing, J.A., 2017. Hollow Ecology: Ecological Modernization Theory and the Death of Nature. *J. World-Syst. Res.* 23, 126–155. <https://doi.org/10.5195/jwsr.2017.611>
- Felli, R., 2014a. On Climate Rent. *Hist. Mater.* 22, 251–280. <https://doi.org/10.1163/1569206X-12341368>
- Felli, R., 2014b. An alternative socio-ecological strategy? International trade unions' engagement with climate change. *Rev. Int. Polit. Econ.* 21, 372–398. <https://doi.org/10.1080/09692290.2012.761642>
- Fischer-Kowalski, M., Haas, W., 2016. Toward a Socioecological Concept of Human Labor, in: Haberl, H., Fischer-Kowalski, M., Krausmann, F., Winiwarter, V. (Eds.), *Social Ecology*. Springer International Publishing, Cham, pp. 169–196.
- Fischer-Kowalski, M., Haberl, H., 1998. Sustainable development: socio-economic metabolism and colonization of nature. *Int. Soc. Sci. J.* 50, 573–587.
- Foster, J.B., Clark, B., York, R., 2009. The Midas Effect: A Critique of Climate Change Economics: *A Critique of Climate Change Economics*. *Dev. Change* 40, 1085–1097. <https://doi.org/10.1111/j.1467-7660.2009.01613.x>
- Fraser, W.H., 1999. *A History of British Trade Unionism, 1700-1998, A History of British Trade Unionism 1700-1998*. St. Martin's Press.
- Garhammer, M., 2002. *Zeitwohlstand und Lebensqualität-ein interkultureller Vergleich*.
- Haberl, H., Fischer-Kowalski, M., Krausmann, F., Martinez-Alier, J., Winiwarter, V., 2011. A socio-metabolic transition towards sustainability? Challenges for another Great Transformation. *Sustain. Dev.* 19, 1–14. <https://doi.org/10.1002/sd.410>
- Hampton, P., 2015. *Workers and Trade Unions for Climate Solidarity: Tackling climate change in a neoliberal world*. Routledge.
- Hildingsson, R., Kronsell, A., Khan, J., 2019. The green state and industrial decarbonisation. *Environ. Polit.* 28, 909–928. <https://doi.org/10.1080/09644016.2018.1488484>
- Howes, M., 2018. Joining the dots: sustainability, climate change and ecological modernisation, in: *Pathways to a Sustainable Economy*. Springer, pp. 15–24.

- Hyman, R., 2001. *Understanding European Trade Unionism: Between Market, Class and Society*. SAGE Publications.
- ILO, 2015. *Guidelines for a just transition towards environmentally sustainable economies and societies for all*. International Labour Organization, Geneva, Switzerland.
- IPCC, 2019. *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*, [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. ed.
- Jackson, T., 2019. The Post-growth Challenge: Secular Stagnation, Inequality and the Limits to Growth. *Ecol. Econ.* 156, 236–246. <https://doi.org/10.1016/j.ecolecon.2018.10.010>
- Jackson, T., Victor, P., 2011. Productivity and work in the ‘green economy’: Some theoretical reflections and empirical tests. *Environ. Innov. Soc. Transit.* 1, 101–108. <https://doi.org/10.1016/j.eist.2011.04.005>
- Jones, S., 2020. Austria’s leader says immigration as much a risk as climate change. *Financ. Times*.
- JTRC, 2018. *Just Transition Research Collaborative (Phase I): Mapping Just Transition(s) to a Low-Carbon World (No. 92-9085-101–5), Social Dimensions of Sustainable Development*.
- Just Transition Centre (Ed.), 2017. *Just Transition: A Report for the OECD*.
- Komlosy, A., 2018. *Work: The last 1,000 years*. Verso Books.
- Krausmann, F., Gingrich, S., Eisenmenger, N., Erb, K.-H., Haberl, H., Fischer-Kowalski, M., 2009. Growth in global materials use, GDP and population during the 20th century. *Ecol. Econ.* 68, 2696–2705. <https://doi.org/10.1016/j.ecolecon.2009.05.007>
- Lawton, G., 2019. The rise of real eco-fascism. *New Sci.* 243, 24. [https://doi.org/10.1016/S0262-4079\(19\)31529-5](https://doi.org/10.1016/S0262-4079(19)31529-5)
- Littig, B., 2018. Good work? Sustainable work and sustainable development: a critical gender perspective from the Global North. *Globalizations* 15, 565–579. <https://doi.org/10.1080/14747731.2018.1454676>
- Lubarda, B., 2020. Beyond Ecofascism? Far-Right Ecologism (FRE) as a Framework for Future Inquiries. *Environ. Values*. <https://doi.org/10.3197/096327120X15752810323922>
- Machin, A., 2019. Changing the story? The discourse of ecological modernisation in the European Union. *Environ. Polit.* 28, 208–227. <https://doi.org/10.1080/09644016.2019.1549780>
- Mazzucato, M., 2014. *The entrepreneurial state: debunking public vs. private sector myths*, Revised edition. ed, Anthem frontiers of global political economy. Anthem Press, London ; New York.
- Mazzucato, M., 2011. The entrepreneurial state. *Soundings* 49, 131–142. <https://doi.org/10.3898/13626621179841183>
- McLaughlin, P., 2012. Ecological Modernization in Evolutionary Perspective. *Organ. Environ.* 25, 178–196. <https://doi.org/10.1177/1086026612450870>
- Meadows, D.H., Meadows, D.H., Randers, J., Behrens III, W.W., 1972. *The limits to growth: a report to the club of Rome (1972)*. Google Sch. 91.
- Nordhaus, W.D., 2015. *A question of balance: weighing the options on global warming policies*. Yale University Press, New Haven.
- Palley, T.I., 2012. *From Financial Crisis to Stagnation: The Destruction of Shared Prosperity and the Role of Economics*, Cambridge books online. Cambridge University Press.
- Pattberg, P.H., Zelli, F. (Eds.), 2015. *Encyclopedia of Global Environmental Governance and Politics*. Edward Elgar Publishing. <https://doi.org/10.4337/9781782545798>
- Pichler, M., Brand, U., Görg, C., 2018. The double materiality of democracy in capitalist societies: challenges for social-ecological transformations. *Environ. Polit.* 1–21. <https://doi.org/10.1080/09644016.2018.1547260>
- Quilley, S., 2017. 20 Navigating the Anthropocene: environmental politics and complexity in an era of limits. *Handb. Growth Sustain.* 439.
- Räthzel, N., Uzzell, and D., 2011. Trade unions and climate change: The job versus environment dilemma., in: *Global Environmental Change*. pp. 1215–1223.
- Rosemberg, A., 2013. Developing global environmental union policies through the International Trade union Confederation., in: *Trade Unions in the Green Economy*, by Nora Räthzel and David Uzzell. Routledge, New York, pp. 15–28.

- Rosemberg, A., 2010. Building a just transition: The linkages between climate change and employment. *Int. J. Labour Res.* 2, 125.
- Sarkar, A.N., 2013. Promoting Eco-innovations to Leverage Sustainable Development of Eco-industry and Green Growth. *Eur. J. Sustain. Dev.* 2. <https://doi.org/10.14207/ejsd.2013.v2n1p171>
- Schor, J., 2008. *The overworked American: The unexpected decline of leisure*. Basic books.
- Snell, D., 2018. 'Just transition'? Conceptual challenges meet stark reality in a 'transitioning' coal region in Australia. *Globalizations* 15, 550–564. <https://doi.org/10.1080/14747731.2018.1454679>
- Snell, D., Fairbrother, P., 2010. Unions as environmental actors. *Transf. Eur. Rev. Labour Res.* 16, 411–424. <https://doi.org/10.1177/1024258910373874>
- Soder, M., Niedermoser, K., Theine, H., 2018. Beyond growth: new alliances for socio-ecological transformation in Austria. *Globalizations* 15, 520–535. <https://doi.org/10.1080/14747731.2018.1454680>
- Spash, C.L., 2016. This Changes Nothing: The Paris Agreement to Ignore Reality. *Globalizations* 13, 928–933. <https://doi.org/10.1080/14747731.2016.1161119>
- Spash, C.L., 2012. Editorial: Green Economy, Red Herring. *Environ. Values* 21, 95–99. <https://doi.org/10.3197/096327112X13303670567134>
- Spash, C.L., 2007. The economics of climate change impacts à la Stern: Novel and nuanced or rhetorically restricted? *Ecol. Econ.* 63, 706–713.
- Spash, C.L., 2008. The economics of avoiding action on climate change. *Adbusters* 16.
- Stevis, D., 2018. (Re)claiming Just Transition [WWW Document]. Medium. URL <https://medium.com/just-transitions/stevis-e147a9ec189a> (accessed 1.24.20).
- Stevis, D., Felli, R., 2016. Green Transitions, Just Transitions? *Kurswechsel* 3, 35–45.
- Stevis, D., Felli, R., 2015. Global labour unions and just transition to a green economy. *Int. Environ. Agreem. Polit. Law Econ.* 15, 29–43. <https://doi.org/10.1007/s10784-014-9266-1>
- Summers, L.H., 2015. Demand Side Secular Stagnation. *Am. Econ. Rev.* 105, 60–65. <https://doi.org/10.1257/aer.p20151103>
- TUDCN, 2019. *The Contribution of Social Dialogue to the 2030 Agenda: Promoting a Just Transition towards sustainable economies and societies for all*. Trade Union Development Cooperation Network.
- Turner, G., 2014. *Is Global Collapse Imminent? An Updated Comparison of The Limits to Growth with Historical Data*. MSSI Res. Pap. No 4, Melbourne Sustainable Society Institute, The University of Melbourne.
- Turner, G., 2008. A comparison of The Limits to Growth with 30 years of reality. *Glob. Environ. Change* 18, 397–411. <https://doi.org/10.1016/j.gloenvcha.2008.05.001>
- Wainwright, H., 2014. Notes for a political economy of creativity and solidarity. *Solidar. Econ. Altern. Emerg. Theory Pract.* 64–100.



WIRTSCHAFTS
UNIVERSITÄT
WIEN VIENNA
UNIVERSITY OF
ECONOMICS
AND BUSINESS

WU Vienna
Institute for Ecological Economics

Welthandelsplatz 2/D5
A-1020 Vienna

+43 (0)1 313 36 4848
ecolecon@wu.ac.at