Just Twin Transition

By the conceptual team of Global Arena Research Institute (published August 2024)

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The concept of *just transition* (JT) has gained significant traction as a crucial framework for addressing the challenges of climate change and ensuring an equitable shift to a sustainable future. This article aims to summarize the concept of just transition, explore the differences between policy and academic conceptualizations, and establish its conceptual connection to the ongoing process of digitalization.

Climate change is one of the most frequently discussed topics in the contemporary world. Addressing its causes and consequences has become an integral part not only of national policies, and it can be argued that the so-called climate agenda has permeated a substantial portion of everyday life. The urgency and irreversibility of the climate crisis demand immediate action and solutions. To reverse the negative impacts of the climate crisis or prevent them, it is necessary for all of us to actively participate in the transformation of the current system, based on fossil fuels, towards sustainability and low-carbon sources. However, the world today is also grappling with another crisis, a societal one - poverty and widening inequalities across societies have resulted in growing tensions that require necessary steps to address the crisis and ensure a brighter future for all. As García-García et al. (2020) point out, this development and the current state of affairs draw attention to the so-called socio-ecological transition. These authors then explain such transition as "the change from a model of interaction between societies and natural systems (socio-ecological regime) to another model, with the aim of stopping or slowing down the said problems". Other authors, for example, Wang and Lo (2021) work with the term socio-technological transition which

refers to “deep structural changes in systems that involve long-term and complex reconfigurations of technologies, policy, infrastructure, scientific knowledge, and social and cultural practices”.

This brings us to the realization that the necessary change we have in mind cannot be merely technological but also social in nature. It is an extremely complex matter that encompasses a wide range of areas and issues. And it also prompts us to ask: how can we ensure that such a complex change has positive impacts on society as a whole? JT is the concept that has gained traction and resonated in both academic and political spheres over the past decade, as it seeks to tackle precisely this question.

Policy conceptualization

The concept of JT is based on ideas that began to emerge in the 1970s in the United States. The roots of JT can be traced back to the early days of the climate agenda when environmental policies had a negative impact on workers in carbon-intensive industries. The beginnings of a JT were characterized by the activity of labor unions representing those who lost their jobs due to these changes (Stevis & Felli, 2020; Wang & Lo, 2021). The proponents of JT then demanded not only the establishment of funds to support and retrain affected workers and their communities but also greater efforts for the development of environmentally-friendly industrial activities (Henry et al., 2020). As pointed out by McCauley and Heffron (2018), criticism of this approach soon emerged, as it creates a "jobs vs. environment/climate" conversation, which can have negative consequences for both the climate and the very communities that are meant to be protected. Such conflicting interests were gradually addressed by the involved groups across sectors, primarily through collaborations between the International Trade Union Confederation (ITUC), the International Labour Organization (ILO), and the United Nations Environment Programme (UNEP) (Jenkins et al., 2020). The first two mentioned entities gradually came to the forefront in the field of JT, becoming key drivers in the field of JT worldwide (Henry et al., 2020).

ILO published its guidelines and fundamental principles for implementing JT in 2015. In addition to the necessity of a strong social consensus, the organization’s list also highlights several other requirements for JT, including the importance of promoting gender equality, ensuring policy coherence across various sectors (economic, environmental, social, etc.), fostering the creation of

quality employment opportunities or tailoring strategies to the specific circumstances of individual countries (ILO, 2015). + ITUC

The concept received even greater attention in 2016 when it appeared in the preamble of the Paris Agreement arising within the framework of the United Nations Climate Change Conference COP21 in 2015. In 2018, JT once again came to the forefront during COP24 in Katowice, Poland - as evidenced by the creation of the Silesia Declaration, an initiative of the Polish COP Presidency adopted by governments at COP24. However, even this act did not contribute to the fulfillment of a crucial step - the proper operationalization and conceptualization of the JT concept (Jenkins et al., 2020). It can be argued that the differences in the understanding of the concept itself and the lack of consensus on the issue hinder the necessary actions and thus impede the realization of JT as a whole.

Nevertheless, mechanisms aiming to support the achievement of JT goals can already be found. One of the most comprehensive programs of this kind is the EU's JT Mechanism (JTM), which was introduced as part of the Green Deal and is projected to raise 55 billion Euros between 2021 and 2027. This mechanism consists of three main components: the JT Fund, the InvestEU "JT" scheme, and the Public Sector Loan Facility provided by the European Investment Bank. While the latter two are integral parts of the JTM, in terms of the amount of money raised, the most significant component is the JT Fund, which has already secured 19.2 billion Euros and is expected to raise an additional 25.4 billion for the cause (European Commission).

When we consider the objectives of the JTM, it not only encompasses the ILO JT guidelines but also introduces more specific and explicit methods for achieving them. A crucial component of the EU's implementation of the JT is the JT Platform (JTP), which serves as a vital tool for EU member states to allocate support from the JTM to vulnerable regions. This support goes beyond financial injections and includes technical assistance and advice, with a dedicated helpdesk and four JTP Working Groups focusing on carbon-intensive regions (European Commission, 2020).

Additionally, the framework of the EU's JT also incorporates the Social Climate Fund (SCF), which aims to provide financial support to vulnerable households and reduce emissions in the road transport and building sectors. Although the SCF does not exclusively address JT issues, it will significantly impact the realization of JT in Europe by complementing socio-technical dimensions that are not covered by the JTM (European Commission).

Although the EU's intentions to achieve JT realization are evident, there are already significant criticisms of the JTM and the SCF. One of the main points of critique revolves around the EU's approach, which is seen as having insufficient scope and an ad hoc attitude, leading to a highly inconsistent approach (Akgüç et al., 2022). Colli (2023) highlights various issues with the JTM, such as the market-based nature of InvestEU and European Investment, which limits the creation of specific country allocations and only allows for forecasted amounts (Colli 2020; Akgüç et al., 2022). Additionally, the JTM primarily focuses on energy production and does not adequately consider JT as a complex systemic issue. It is also silent on the role of the private sector and social stakeholders in the transition, despite their crucial involvement (Colli 2020).

However, even if the European platform for JT falls short, it can still be implemented at the national level. Spain, for example, launched its JT program in 2019, which not only addresses job impacts but also emphasizes wide-ranging public participation processes and local-level socio-economic impact assessments (Instituto Para La Transición Justa, 2022). Sweden is considered one of the most advanced countries in realizing JT, as it approaches JT as a complex issue influenced by spatial factors, social conditions, and access to energy resources (Ring et al., 2022). Scotland has also adopted its own national JT mechanism, albeit to a lesser extent (Scottish Government).

The JTM and SCF have potential but also face certain limitations. This suggests that there are several possible scenarios for achieving JT in Europe. One scenario depicts a situation where the EU's instruments are sufficient and state-level instruments are not required to achieve JT. However, due to discrepancies between the capabilities of EU member states, this could lead to stark contrasts in the realization of JT among individual countries. On the other hand, a uniform and comprehensive EU approach would ensure that no EU country is left behind. Currently, the JTM is already in an active state, financing a few projects across the EU and moving closer to a more optimistic scenario (European Commission, 2022).

When comparing the situation in other regions of the world, it becomes apparent that there is a lack of a comparable systematic approach to the EU's Just Transition Mechanism (JTM). For instance, in the US, the debate about just transition is on the political level practically nonexistent, which could be explained by the tradition of the anti-interventionist approach in welfare policies (Koop, 2023).

This holds also for Latin America. Although discussing just transition among worker's unions of Latin countries is in full swing (especially among labor unions), it is very unlikely that it would

result in a regional initiative since there's no regional institution covering at least most of the states (Koop, 2023).

But nevertheless, there are incentives to help achieve just transition also in Asia and Africa. Arguably the most focused region to tackle the issue is Southeast Asia, especially targeting countries of coal-producing Indonesia and the Philippines and coal-importing Vietnam. For the mitigation of negative aspects of the transition from coal to renewable energy, there has already been made a thorough report of the "A Just Energy Transition in Southeast Asia - the impacts of coal phase-out on jobs" by the United Nations Issue-based Coalition (IBC) on Raising Ambitions on Climate Actions. The IBC acknowledged that help is indeed needed and pledged a long-term partnership with the Southeast Asian countries and has already started a five-year just transition program (International Labour Organization, 2022).

Meanwhile, in Africa, the just transition has already been formally adopted by the executive council of the African Union (AU) under the African Common Proposition on Energy and Just Energy Transition since July of 2022. This commitment towards just transition was only strengthened by the Africa Just and Affordable Energy Transition Initiative (AJAETI) launched by Egypt to help identify "locally appropriate strategies and potential energy mixes to set up just and affordable pathways away from fossil fuels for African countries." In comparison with the Europe and Southeast Asia initiatives, its goal consists more of providing electricity for everybody than the focus on the fossil fuel industry workers (Ighobor, 2022), (African Union, 2022).]

Academic conceptualization

Academics point out a certain development in the research of the just transition, which was largely composed of texts with a technocratic undertone, primarily in the case of authors from the USA. These texts focused on "jobs gained or lost from transitioning energy systems and, in some circumstances, treat such job measures as a proxy for broader social, economic, and political factors" (Bazilian et al., 2021). However, gradually, academics began to address other dimensions of this issue. Thus, it can be argued that the development of this concept in the academic world went hand in hand with its development in the policy world.

Krawchenko and Gordon (2021), for instance, distinguish between three fundamental types of interpretations of JT 'jobs-focused' (focused on the worker's perspective), 'environment-focused' (enabling the shift towards zero-carbon future), and 'society-focused' (broadest approach for universal equity and justice). Similarly, scholars like McCauley and Heffron (2018) point out that in the current debate, there are other concepts of justice emerging: environmental justice (the protection of disproportionately vulnerable groups from environmental degradation), climate justice (challenging systems that create climate change and impose disproportionate environmental costs and risks on less powerful groups), and energy justice (a global energy system that equitably distributes both the benefits and burdens of energy services and contributes to more inclusive and representative energy decision-making). These authors contend that the strategic significance of JT should encompass a broader framework for examining and advocating fairness and equity throughout the process of transitioning to a greener economy.

Bouzarovski (2022) looks at the concept and its current establishment with a certain skepticism. This author states that the way the concept appears today "in their dominant framing and operationalization through policies such as the European Green Deal may serve to accommodate and prolong the unfolding global crisis of climate degradation and social inequality, as opposed to fundamentally challenging the capitalist roots of energy and climate injustices".

When we look at the criticism of the current state of research on just transition, we see those authors like Jenkins et al. (2020) criticize the lack of politicization of this concept. According to the authors, there is a need to "explicitly link conceptual and empirical scholarship to the wider political context". It is precisely this and other examples of specific steps mentioned by the authors that should lead to the research on just transition directly influencing decision-making in this matter, both at the national and international level.

Twin transition

The idea of transitioning to a more sustainable system is also reflected in the concept of the so-called twin transition. The term "twin transition" refers to the simultaneous and interconnected processes of transitioning towards both a low-carbon economy and a digital economy. It recognizes

the need to address climate change and promote sustainability while also harnessing the transformative potential of digital technologies (ZDROJ).

Before delving into the twin transition concept, it's important to examine its second component, which is the process of digitization or, as some authors suggest, the so-called digital transition. Rosário and Dias (2022), for example, define digital transition as "transition from analog to digital processes that allows digital tools to model processes and activities, thus improving performance and productivity". The authors then continue, that such transition has the ability to "develop and implement sustainable solutions". If we set aside the perspective of sustainability and focus on justice, which is crucial for a just transition, we can see that even in the case of digital transition, authors emphasize its fulfillment.

While the concept of just transition appears to be thriving in various aspects, the notion of twin transition holds particular significance within international institutions. It is even regarded as a primary priority by the European Commission, as affirmed by its President Ursula Von der Leyen. Digitalization and digital transformation are indeed recognized as crucial facilitators in achieving the objectives of the Green Deal.. Consequently, it is unsurprising that the European Commission has introduced the Digital Education Action Plan (2021-2027), aimed at enhancing the digital skills of European citizens and promoting digital ecosystems in the field of education (Fouquet & Hippe, 2022).

Even in the case of the twin transition concept, however, we can encounter inconsistent anchoring of the concept, with the greatest obstacle being the question of systematic integration between its two dimensions - environmental and digital.

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