

1 **Evaluating initiatives to improve transport justice**

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1. Introduction

Environmental and social justice in transportation is essential for ensuring fair and equitable access to mobility for all individuals, regardless of intersecting markers of social identities such as gender, class, race, ethnicity, age, (dis)ability, sexuality, and religion, all of which may lead to social disadvantages. Transportation systems are not neutral infrastructures but rather socially and politically constructed spaces (Sheller, 2018; Siren, 2021) that recognize certain needs, capabilities, and preferences but not others, and that may shape and reflect broader societal inequalities. Disparities in mobility access, infrastructure investment, and governance arrangements have historically reinforced social exclusion (Lucas, 2012), limiting opportunities for economic participation, access to essential services, and overall well-being for marginalized groups. Addressing these inequities requires a critical examination of both the material distribution of transport benefits and burdens (Pereira et al., 2017), and the knowledge creation and decision-making processes that govern transportation planning and policy (Schwanen, 2021; Sheller, 2018).

A substantial body of literature has documented inequities in transportation, highlighting how the distribution of transport resources systematically disadvantages certain populations. Research has examined spatial mismatches in job accessibility, gaps in transit service coverage, inequalities in walking and cycling abilities and propensities, the disproportionate exposure of marginalized communities to environmental harms such as air pollution, and the social and psychological consequences of mobility constraints (e.g., Carleton and Porter, 2018; Larriva et al., 2024; Liu and Kwan, 2020; Lucas et al., 2016; Ma et al., 2018; Verlinghiri and Schwanen, 2020). While these studies have been instrumental in identifying injustices, less attention has been given to evaluating interventions aimed at improving environmental and social justice in transport systems. As cities and policymakers implement measures intended to address these disparities, such as fare reductions, transit-oriented development, participatory planning processes, or policies to enhance active travel options (Pinski and McCarthy, 2024; Rubensson et al., 2020; Yip et al., 2024), it is crucial to assess their effectiveness. Without rigorous evaluation, interventions risk being ineffective, tokenistic, or even counterproductive, potentially exacerbating rather than alleviating mobility inequities.

This gap in research has important implications for urban and transport planning. Cities are increasingly prioritizing equity and sustainability in their transportation policies, but without clear empirical evidence on what works, where, and in what context, decision-making remains susceptible to political influence, anecdotal evidence, and short-term considerations. Systematic evaluations of interventions, ranging from large-scale infrastructure investments to grassroots-led mobility initiatives, can provide valuable insights into the conditions under which policies succeed or fail. By identifying the mechanisms that contribute to (or hinder) justice-oriented transport policies, researchers may support refining strategies, inform public debates, and ensure that transportation planning moves beyond rhetorical commitments toward meaningful and applied change.

Furthermore, strengthening the research base on environmental and social justice in transportation supports broader societal goals. Equitable mobility is not only a matter of fairness, but also linked to

1 environmental sustainability, public health, economic development, and social cohesion (Iroz-Elardo et
 2 al., 2020; Larriva et al., 2024). Transportation systems that reduce disparities in access can enhance
 3 labor market participation, improve physical and mental health outcomes, and contribute to more
 4 resilient urban environments. Moreover, inclusive and just transport policies can foster democratic
 5 engagement by ensuring that historically marginalized communities have a voice in shaping mobility
 6 futures (Sheller, 2018).

7
 8 This special issue seeks to advance knowledge on these critical issues by gathering research that
 9 evaluates the effects of interventions aimed at improving environmental and social justice in
 10 transportation systems. By focusing on empirical assessments of policies, programs, and practices, this
 11 collection aims to bridge the gap between theory and practice, offering insights that can inform both
 12 scholarship and policy implementation. Rigorous, transparent, and methodologically diverse research in
 13 this area is essential for developing transportation systems that are not only more efficient and
 14 sustainable but also fundamentally fair and inclusive.

15
 16 **2. Overview of the special issue**

17
 18 The accepted papers contribute to evaluating initiatives that aim to improve equity in mobility by
 19 assessing structural barriers, policy effectiveness, governance challenges, and the role of technology in
 20 shaping accessible and inclusive transport systems. The 11 papers (Table 1) fall into three key categories:
 21 1) ‘Accessibility, equity, and justice in transportation,’ which examines barriers in public transport, bike-
 22 sharing, metro access, and greenery exposure, emphasizing the need for inclusive policies and
 23 infrastructure; 2) ‘Transportation policy, governance, and planning tools,’ which explores regulatory
 24 frameworks, institutional support, and planning methodologies, highlighting challenges in policy
 25 implementation and equity; and 3) ‘Digital and technological innovations in transport,’ which assesses
 26 emerging mobility technologies, from digital service hubs to virtual reality (VR) in public engagement,
 27 revealing both benefits and limitations. Together, these studies offer insights into the intersection of
 28 social justice, governance, and technology in shaping equitable mobility systems.

29
 30 Table 1: The location and initiatives evaluated of accepted papers

Article Category	Authors	Location	Initiative(s) Evaluated
Accessibility, equity, and justice in transportation	Hosford et al., 2024	Vancouver, Canada	Equity initiatives in Vancouver’s public bike share (Mobi) program:
			(1) Expansion of the service area
			(2) Introduction of e-bikes
			(3) Community Pass program: Low-cost membership for low-income and marginalized residents
(4) Hiring an equity coordinator			

			(5) Partnerships with 58 community organizations
	Hridya et al., 2025	India (nationwide)	Service coverage of India's Rights of Persons with Disabilities Act, 2016
	Khanian et al., 2024	Lodz, Poland	Urban planning policy efforts to improve walkability (focusing on children's walking routes):
(1) New master plan focusing on walkability and green connectivity			
(2) Planting 59,000 new trees			
		(3) Encouraging active school transportation via pedestrian-friendly infrastructure	
	Martinez et al., 2024	Brussels, BE; Munich, DE; Rotterdam-The Hague, NL; Vienna, AT	Design of mobility hubs for accessibility and equity
	Xu et al., 2024	Hong Kong	Hong Kong's transit-oriented development model
	Zhang et al., 2024	Beijing, China	Hypothetical built environment improvement scenarios for Beijing's internal migrants
(1) Increased land-use diversity			
(2) Increased road density			
(3) Expanded bus route coverage			
		(4) Shorter metro access distance	
Transportation policy, governance, and planning tools	Cidell et al., 2025	Minnesota, Washington, Los Angeles, and Chattanooga, USA	Artist-in-Residence programs
	Oh and Cho, 2024	Ulleungdo Island, South Korea	Public Service Obligation air routes to enhance air connectivity in underserved regions
	Spriggs et al., 2024	USA (nationwide)	Federal policies relating to environmental justice:
(1) National Environmental Policy Act (NEPA)			
(2) Justice40 Initiative			
		(3) GIS-based screening tools	
Digital and technological innovations in transport	Smith et al., 2024	Boscombe, Bournemouth, Southampton, Lepe, and Southbourne, England	VR-based public engagement in making complex Advanced Air Mobility topics accessible
	Stjernborg and Lopez Svensson, 2024	Two villages in Norbotten County, Sweden	Digital Service Solutions in rural areas

1

2 2.1 Accessibility, equity, and justice in transportation

1
2 Six articles address fairness in mobility among versatile groups, such as persons with disabilities, low-
3 income populations, or marginalized communities. This group of articles emphasizes broad structural
4 inequities in transportation systems. Hosford et al. (2024) evaluate the impact of equity initiatives in
5 Vancouver’s public bike share system, Mobi, using a mixed-methods approach that integrates system
6 usage data, surveys, interviews, and census data. With a sample of over 1.3 million trips, the findings
7 reveal that service area expansion increased accessibility but did not fully close equity gaps, as higher-
8 income and white populations still had better access. The Community Pass program, designed for low-
9 income and marginalized residents, showed strong demand, with members taking more frequent trips
10 than standard users. E-bikes proved particularly beneficial for riders with disabilities, who had the
11 highest trip frequency among all users. Community partnerships with organizations serving different
12 priority populations such as youth, Indigenous residents, people with lower socioeconomic status,
13 persons with disabilities, or 2SLGBTQ+ community members played a crucial role in expanding access,
14 referring 60% of Community Pass members, though awareness and administrative challenges limited
15 broader participation. Despite these initiatives, affordability and infrastructure gaps remain, particularly
16 in marginalized neighborhoods where docking stations are scarce, and e-bike surcharges for non-
17 disabled users present additional cost barriers.

18
19 Hridya et al. (2025) examine public transport accessibility for people with disabilities (PwDs) across India
20 using data from the National Sample Survey and various statistical models. Analyzing a sample of
21 102,977 PwDs, they highlight significant disparities in transit use, influenced by gender, employment
22 status, and the need for caregivers. While individuals with hearing, speech, or locomotor disabilities are
23 more likely to use public transport, female PwDs and those who lost work face greater barriers. The
24 most common accessibility challenge is boarding due to high steps and a lack of ramps, followed by
25 inadequate seating, poorly designed doors, and unclear signage. Geographically, southern India has
26 better accessibility, whereas marginalized regions see lower usage despite legal protections under the
27 Rights of Persons with Disabilities Act (2016). However, poor enforcement and infrastructure gaps
28 hinder the act’s effectiveness. The study emphasizes the need for stronger enforcement, improved staff
29 training, and infrastructure upgrades to advance transit justice for PwDs.

30
31 Khanian et al. (2024) investigate socio-economic inequalities in children's exposure to greenery during
32 home–school walks in Łódź, Poland, using spatial and network analyses. Analyzing data from 21,736
33 children aged 7–13, the study reveals that low-SES (socioeconomic status) children experience
34 significantly less greenery on their walking routes than their high-SES peers, even when taking the
35 greenest available paths. High-SES children benefit from greater greenery exposure on all routes,
36 whereas low-SES children must navigate 20% more turns to achieve comparable exposure, making their
37 routes longer and more complex. The greenest routes for all children require more distance and turns,
38 potentially discouraging their use. These findings highlight environmental injustice, as urban greenery is
39 more accessible to wealthier children despite city initiatives to improve walkability and green
40 connectivity. The study underscores the need for equitable urban planning that integrates greenery into
41 pedestrian-friendly school routes, particularly in low-income areas.

42

1 Martinez et al. (2024) explore how mobility hubs can be designed to serve disadvantaged groups in
2 Brussels, Munich, Rotterdam-The Hague, and Vienna better, using the Capabilities Approach and
3 directed content analysis of interviews and focus groups. Findings reveal that physical design
4 significantly impacts usability, with barriers such as complex layouts, stairs, and a lack of sheltered
5 waiting areas limiting access for older adults and people with disabilities. Service availability and
6 reliability pose challenges, particularly for low-income users and rural residents facing limited hub
7 locations and inconsistent transportation options. Digitalization introduces additional barriers, as
8 migrants, older adults, and digitally excluded individuals struggle with smartphone-dependent access
9 and complex ticketing systems. The presence of human assistance, such as staff on-site or support
10 services, greatly improves accessibility, especially for those with cognitive impairments and non-native
11 language speakers. Safety concerns also discourage use, particularly among women and young users,
12 underscoring the need for well-lit spaces, surveillance, and clear signage to enhance security and
13 inclusivity in mobility hub design.

14
15 Xu et al. (2024) evaluate the accessibility of Hong Kong's transit-oriented development model for elderly
16 individuals and wheelchair users using geospatial accessibility modeling and conversion factor analysis.
17 While 79% of metro stations offer sufficient pedestrian infrastructure, only 17% of their surrounding
18 areas are fully accessible to wheelchair users, highlighting major mobility gaps. Elevated walkways and
19 shopping mall integrations, common in Hong Kong's urban landscape, create additional barriers by
20 requiring longer and more complex routes. In contrast, older districts with grid-based street layouts,
21 such as Mong Kok and Sham Shui Po, provide better pedestrian mobility and fewer disparities. Metro
22 station design also plays a crucial role, with multi-level access points improving accessibility while
23 stations surrounded by highways or steep terrain significantly hinder walkability. The study argues for a
24 shift from transit-oriented development to a more inclusive "People-Oriented Development" approach,
25 emphasizing universal design principles and barrier-free pedestrian networks to promote mobility equity
26 for all users.

27
28 Zhang et al. (2024) assess the impact of built environment improvements on transport equity for
29 internal migrants in Beijing using an activity-based multilevel discrete choice model. Analyzing data from
30 the Fifth Beijing Daily Travel Survey, the study evaluates four hypothetical scenarios: increased land-use
31 diversity, expanded road networks, extended bus coverage, and shorter metro access distances.
32 Findings suggest that improving land-use diversity is the most effective strategy, as it enhances
33 commuting options for carless migrants. Expanding bus coverage also significantly benefits low-income
34 migrants by improving transport access. However, increasing road density does not contribute to
35 transport equity improvement and may even worsen commuting capabilities for disadvantaged groups.
36 Similarly, shortening metro access distances has limited benefits, primarily aiding a small fraction of
37 residents living beyond the 6th Ring Road. The study concludes that policy efforts should prioritize
38 mixed land-use strategies, as they provide the greatest improvements in transport accessibility and
39 equity for Beijing's internal migrants.

40
41 In conclusion, transportation accessibility, equity, and justice remain critical concerns across diverse
42 populations, as disparities in infrastructure, service availability, and digital inclusion continue to

1 marginalize disadvantaged groups. These studies highlight persistent inequities in accessing different
2 transportation modes for low-income individuals, people with disabilities, migrants, and children from
3 lower socioeconomic backgrounds, often exacerbated by poorly designed infrastructure, affordability
4 challenges, and digital barriers. While initiatives such as subsidized programs and expanded service
5 areas aim to improve access, gaps remain due to inadequate enforcement, non-inclusive design,
6 infrastructure deficiencies, and the unintended consequences of urban planning decisions. Studies
7 emphasize the need for inclusive policies that prioritize universal design, enhanced mobility services,
8 and equitable development to ensure all individuals, regardless of age, ability, or socio-economic status,
9 can navigate transportation systems with dignity and ease.

10 11 *2.2 Transportation policy, governance, and planning tools*

12
13 Three articles discuss policy mechanisms, planning frameworks, and governance structures that
14 influence transport decisions. Cidell et al. (2025) examine the role of Artist-in-Residence (AiR) programs
15 in U.S. Departments of Transportation (DOTs), analyzing five interviews and nine case studies through
16 the lens of epistemic justice. Findings indicate that the success of these programs depended on treating
17 artists as equal contributors alongside engineers and integrating creative practices into decision-making.
18 Institutional buy-in was crucial, as programs with senior management support had a greater impact,
19 while others faced challenges due to a lack of internal advocacy. A major limitation was the absence of
20 formal evaluation metrics, making it difficult to justify continued funding. Additionally, sustainability
21 issues prevented long-term adoption, with no DOTs permanently retaining the AiR model, although
22 some continued hiring artists for specific projects. The study also highlights that open-ended
23 residencies, such as those at Washington State’s DOT and the first Minnesota DOT artist, fostered
24 deeper engagement, whereas more structured programs, like the second Minnesota DOT residency and
25 Chattanooga’s, struggled to align with DOT goals. These findings underscore the need for institutional
26 support, evaluation frameworks, and sustainable funding to maximize the impact of AiR programs in
27 transportation planning.

28
29 Oh and Cho (2024) evaluate the impact of Public Service Obligation (PSO) air routes on regional
30 connectivity in South Korea, focusing on Ulleungdo Island, which is located in the Sea of Japan (East Sea)
31 to the east of the Korean peninsula. Using Weighted Cumulative Opportunity Accessibility and
32 Opportunity Achievement Worth methods, the analysis covers 229 administrative units, 14 inland
33 airports, and 3,206 travel time combinations. Findings indicate that new PSO air routes significantly
34 enhance accessibility, with connections to Gimpo and Incheon airports yielding the greatest
35 improvements, particularly in access to healthcare (+20%) and cultural opportunities (+30.5%). Multi-
36 route combinations provide superior accessibility compared to single-route links, emphasizing the
37 importance of network optimization. However, not all routes contribute equally, with certain
38 connections (e.g., Yangyang, Muan, Gunsan) offering minimal benefits, underscoring the need for
39 strategic route selection. The study supports PSO air routes as a tool for reducing travel time disparities
40 and fostering regional development while highlighting the importance of balancing transportation
41 justice with sustainability. To ensure long-term viability, policymakers should integrate green aviation
42 strategies such as electric aircraft and sustainable fuels alongside accessibility improvements.

1
2 Spriggs et al. (2024) evaluate the functionality and effectiveness of web-based GIS tools for
3 environmental justice assessments in U.S. transportation projects, analyzing four major tools: EPA
4 EJScreen, Climate and Economic Justice Screening Tool, Environmental Justice Index, and Equitable
5 Transportation Community Explorer. Findings indicate that these tools vary in usability and
6 transportation focus, with the Equitable Transportation Community Explorer offering the most
7 transportation-specific data and EJScreen providing the most detailed environmental indicators.
8 However, inconsistencies in defining disadvantaged areas lead to disparities in project evaluations,
9 highlighting the lack of standardized environmental justice assessment regulations in transportation
10 planning. While GIS tools enhance procedural justice by making environmental and transportation
11 disparities more transparent, their accessibility and integration into decision-making processes need
12 improvement. The National Environmental Policy Act provides a legal framework for environmental
13 justice assessments, but no federal mandate requires them for infrastructure projects. Additionally, data
14 quality limitations restrict local applicability, underscoring the need for ground-truthing and direct
15 community engagement to ensure accurate and equitable transportation planning.

16
17 In summary, effective transportation planning relies on robust policy mechanisms, strategic planning
18 frameworks, and governance structures that shape decision-making and ensure equitable access to
19 mobility. The above studies highlight the importance of integrating diverse perspectives into
20 transportation planning, as seen in the success of Artist-in-Residence programs (Cidell et al., 2025) when
21 artists are treated as equal contributors. However, sustainability challenges and the absence of formal
22 evaluation metrics limit their long-term adoption. Similarly, the implementation of Public Service
23 Obligation air routes in South Korea demonstrates how strategic transport policies can improve regional
24 connectivity and access to essential services, yet careful route selection and sustainability considerations
25 remain crucial (Oh and Cho, 2024). In the realm of environmental justice, web-based GIS tools enhance
26 transparency in transportation project assessments, but inconsistencies in disadvantaged area
27 definitions and the absence of federal mandates for environmental justice assessments hinder their
28 effectiveness (Spriggs et al., 2024). These studies emphasize the need for institutional support,
29 standardized evaluation frameworks, and inclusive governance structures to ensure that transportation
30 policies and infrastructure developments address both equity and sustainability.

31 32 *2.3 Digital and technological innovations in transport*

33
34 Two articles focus on technology-driven changes in mobility discussing both digital tools and emerging
35 transport innovations. Smith et al. (2024) evaluate the effectiveness of VR-based public engagement in
36 facilitating informed debate on Advanced Air Mobility (AAM) across five locations in England. Analyzing
37 qualitative survey responses from 603 participants, the study finds that VR increased public awareness
38 of AAM but did not fully dispel misconceptions—many participants continued to believe drones would
39 reduce congestion despite contrary evidence. Supplementary materials helped clarify operational risks
40 and safety concerns but inadvertently reinforced overestimated expectations of AAM’s environmental
41 benefits. Over time, public concerns shifted toward safety, regulation, and governance, with later-stage
42 participants posing more detailed questions on flight paths and risk management. A key takeaway was

1 the strong demand for broader public consultation, as many participants felt excluded from prior
2 discussions on AAM development. Additionally, engagement patterns varied by demographic group,
3 emphasizing the need for diverse outreach strategies tailored to different communities to ensure truly
4 inclusive participation in AAM policymaking.

5

6 Stjernborg and Lopez Svensson (2024) examine the role of Digital Service Solutions in addressing
7 transport poverty among older adults in two rural villages in Norrbotten County, Sweden. Through
8 thematic and comparative analysis of interviews, findings reveal that while digital services help reduce
9 mobility barriers, they do not fully eliminate car dependence, as longer trips still require private vehicles
10 due to limited public transport. Initially, older adults faced challenges adapting to digital tools, such as
11 electronic locks, but with training and simplified alternatives, they successfully integrated them into
12 daily life. The introduction of digital grocery stores and service hubs improved local accessibility and
13 fostered social interaction, transforming unmanned stores into community gathering spaces. However,
14 rising fuel prices have worsened transport poverty, forcing some residents to cut back on social trips due
15 to higher costs. The study underscores the need for rural transport planning that balances digital
16 solutions with human services, ensuring accessibility without compromising face-to-face interactions in
17 essential areas like healthcare, banking, and government support.

18

19 Both studies highlight the potential and limitations of digital and technological innovations in
20 transportation and their broader policy implications. Their findings stress the importance of balancing
21 digital innovations with human-centered services to ensure equitable mobility, particularly for
22 disadvantaged populations. Both studies call for inclusive policy frameworks that integrate technological
23 advancements with broader social and infrastructural support.

24

25 **3. Conclusions and future research**

26

27 Addressing environmental and social justice in transportation requires careful attention to the
28 distribution of mobility benefits and burdens; due recognition of the multiple and complex needs,
29 concerns, capabilities, and customs of different individuals, groups, and communities; and critical
30 consideration of the governance and decision-making processes that shape transportation
31 infrastructure. The studies reviewed in this special issue provide critical insights into the effectiveness of
32 various interventions aimed at improving transport equity and justice. These studies collectively
33 highlight both the potential and the limitations of current approaches to addressing disparities in
34 transport-related burdens and benefits. While initiatives such as mobility hubs, digital service solutions,
35 and public participation programs have demonstrated promising outcomes, many systemic challenges
36 remain, requiring a deeper commitment to inclusive planning and sustained policy efforts.

37

38 A central theme emerging from these studies is the role of accessibility in transport equity. Whether in
39 public bike share systems in Vancouver, rural mobility in Sweden, or internal migrant transport in
40 Beijing, accessibility remains deeply uneven, with lower-income and marginalized groups often facing
41 greater barriers to mobility. Expanding service areas, improving land-use diversity, and enhancing
42 multimodal connectivity have all been shown to reduce disparities, yet their success depends on

1 implementation strategies that account for local socioeconomic and spatial inequalities. The studies on
2 public service obligation air routes in South Korea and multimodal accessibility assessments further
3 underscore the importance of strategic planning to ensure that infrastructure investments truly benefit
4 underserved populations.

5

6 Another key finding is the significance of governance and decision-making processes in shaping
7 transport justice. Several studies, including those on Artist-in-Residence programs in U.S. Departments
8 of Transportation and the use of GIS tools for environmental justice assessments, emphasize the need
9 for participatory and inclusive governance mechanisms. When marginalized communities are excluded
10 from planning processes, interventions may fail to meet their needs or reinforce existing inequities.
11 Public engagement efforts in advanced air mobility planning illustrate both the promise and limitations
12 of participatory approaches. While innovative tools such as VR increased public awareness, they did not
13 fully resolve misconceptions or address deeper concerns about safety and governance. These findings
14 suggest that meaningful engagement must go beyond information dissemination to involve
15 communities in decision-making at all stages.

16

17 Technology and digitalization are increasingly shaping transport equity, yet their effects are not
18 universally positive. Studies on digital service solutions for rural mobility and web-based GIS tools for
19 environmental justice highlight both the opportunities and risks associated with digital transformations
20 in transportation. While digital tools can enhance accessibility and procedural justice, they can also
21 introduce new barriers for older adults, migrants, and digitally excluded users. The case of mobility hubs
22 across European cities further demonstrates how digitalization interacts with physical infrastructure,
23 requiring a balance between technological advancements and the need for human-centered services.
24 Future research should explore how digital inclusion strategies and recognition of the full range of
25 needs, capabilities and concerns across relevant populations can be embedded in transportation
26 planning to ensure equitable access for all users.

27

28 Safety and security concerns also emerge as recurring barriers to transport justice, particularly for
29 women, young users, and people with disabilities. The studies on mobility hubs and public bike share
30 systems demonstrate how physical design and service availability shape users' perceptions of safety.
31 Similarly, the accessibility gaps identified in Hong Kong's transit-oriented development model reveal
32 how built environments can both facilitate and restrict mobility for vulnerable populations. Addressing
33 these concerns requires infrastructure improvements, such as better lighting, clear signage, and barrier-
34 free design, and institutional commitments to ensuring safety in transport spaces.

35

36 Based on these findings, future research should focus on several key areas. First, more longitudinal
37 studies are needed to assess the long-term impacts of interventions that seek to change the socio-
38 spatial distributions of transport-related burdens and benefits. Many of the studies reviewed here
39 highlight short-term outcomes, but sustainable change requires understanding how policies evolve over
40 time and whether they lead to lasting improvements. Second, there is a need for more rigorous
41 evaluation frameworks that integrate qualitative and quantitative methods, as seen in the study on
42 mobility hubs and the capabilities approach used in transit equity research (Martinez et al., 2024). If a

1 purely quantitative approach is deployed, then it is essential that studies adopt robust approaches to
2 identifying the causal impact of interventions. Difference-in-difference modelling, including assessment
3 of parallel lines, staggered treatment, and placebo effects, provide an obvious suite of methods for such
4 causal analysis. It is increasingly used to assess the consequences of infrastructure development on, for
5 instance, gentrification (Bardaka et al., 2019; Yoo et al., 2024). More generally, developing standardized
6 metrics and systemic approaches for assessing transport justice could help policymakers appraise
7 interventions, scale up, and transfer successful strategies.

8

9 Lastly, future research should explore the intersection of environmental sustainability and transport
10 justice. While some studies touch on sustainability concerns, such as the need for greener aviation
11 policies in South Korea or the overestimated environmental benefits of advanced air mobility, there is
12 still much to understand about how climate policies interact with transport justice goals. Ensuring that
13 sustainability initiatives do not disproportionately burden marginalized communities will be critical in
14 building truly equitable and environmentally just transportation systems.

15

16 In sum, this special issue underscores the necessity of improving planning processes to create fairer,
17 more inclusive, and more just cities. Achieving transport justice requires not only investments in
18 infrastructure and technology but also due recognition of diverse and sometimes conflicting needs,
19 concerns, and customs, participatory governance and equitable policy design, and ongoing evaluation of
20 interventions and critical reflection on knowledge production processes. By learning from both
21 successes and failures, researchers, policymakers, and advocates can work together to develop more
22 just, sustainable, and accessible transportation systems for all.

23

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