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Assessing the Alignment of Work from Home Practices with the United Nations Sustainable Development Goals: A Sociological Perspective

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Abstract

The recent *Sustainable Development Report* highlights a concerning stagnation in global progress toward the United Nations Sustainable Development Goals (SDGs), with over half of the targets advancing too slowly and nearly one-third showing regression. This multi-dimensional crisis, intensified by the COVID-19 pandemic, has simultaneously transformed global work cultures through the rapid expansion of Work-from-Home (WFH) practices. This sociological study, based on secondary data and extensive literature review, examines the extent to which WFH practices align with the United Nations Sustainable Development Goals (SDGs). The paper explores the multifaceted social implications of remote work its influence on gender roles, class dynamics, digital inequality, and work–life boundaries within the framework of sustainable development. Findings suggest that WFH contributes positively to several SDGs, including Goal 3 (Good Health and Well-being) through reduced commuting stress and enhanced flexibility; Goal 5 (Gender Equality) by increasing women's labor force participation; Goal 8 (Decent Work and Economic Growth) through the rise of digital employment; Goal 9 (Industry, Innovation, and Infrastructure) by promoting technological adaptation; Goal 10 (Reduced Inequalities) and Goal 13 (Climate Action) through reduced carbon emissions. However, the benefits are unevenly distributed. Persistent gendered expectations, unequal access to digital infrastructure, and blurred work–family boundaries have created new forms of socio-economic and emotional strain. The paper argues that WFH reflects both progress and paradox while it fosters sustainability and inclusivity, it simultaneously reinforces traditional inequalities within the domestic sphere. The study concludes that a sustainable remote work culture requires inclusive digital policies, gender-sensitive organizational frameworks, and recognition of unpaid care labor. By situating WFH within the sociology of work and social sustainability, this paper underscores its transformative potential and challenges for achieving equitable development.

Keywords: Work from Home, Sustainable Development Goals, Sociology of Work, Gender Equality, Digital Divide, Social Sustainability, Remote Employment

1. Introduction

The trajectory towards achieving the Sustainable Development Goals (SDGs) has been significantly disrupted. The United Nations (2023) reports that progress on over 50% of the established targets is weak and insufficient, with 30% experiencing stagnation or regression. This slowdown is largely attributed to the multifaceted crises induced by the COVID-19 pandemic, which created profound economic uncertainties, public health emergencies, and strained social fabrics (Fenner & Cernev, 2021; Islam et al., 2020). Concurrently, the pandemic acted as a catalyst for a transformative shift in the professional world: the rapid and widespread adoption of remote work (Amankwah-Amoah et al., 2021; Diab-Bahman & Al-Enzi, 2020). This shift is not merely a change of location but a phenomenon that reconfigures the relationship between work, family, and society, blurring the once-clear boundaries between professional commitments and personal life (Adisa et al., 2022; Matli, 2020; Yeo & Li, 2022). This reconfiguration has profound implications for urban planning, energy consumption, labor markets, and social equity, placing WFH at the center of contemporary sustainability debates. This period of 'poly-crisis' has exposed the fragility of global systems and served as a stark reminder of the interconnectedness of health, social, and environmental issues (van Zanten & van Tulder, 2020). Within this context, WFH has emerged as a significant new norm, presenting both opportunities and challenges for sustainable development. While initial research focused on the immediate productivity and logistical aspects of remote work, a comprehensive assessment of its long-term alignment with the broader, interconnected agenda of the SDGs is urgently needed (Barrero et al., 2021).

This paper examines how Work-from-Home (WFH) practices relate to the United Nations Sustainable Development Goals (SDGs) from a sociological perspective. It analyzes both the positive and negative social consequences of remote work, focusing on its impact on health, gender equality, income opportunities, technological access, and environmental sustainability. The study is based on secondary data and a comprehensive review of existing literature. It seeks to understand whether WFH supports or obstructs progress toward sustainable and inclusive development. The paper further explores the structural challenges faced by workers, particularly women and individuals lacking adequate digital resources, who often experience unequal opportunities and increased burdens of unpaid care work. By identifying these patterns, the study aims to highlight how WFH can be shaped through equitable policies and social frameworks to ensure fairness, digital inclusion, and gender sensitivity in the future of work.

Theoretical and Conceptual Framework

From a sociological standpoint, Work from Home (WFH) represents a reorganization of both work structures and family relations. This study draws upon several theoretical perspectives to understand how WFH practices interact with broader social and developmental processes. According to Structuration Theory (Anthony Giddens, 1984), WFH demonstrates the dynamic interaction between individual agency and social structures. While digital technologies have reshaped the nature of work, individuals continue to operate within traditional social norms, gender hierarchies, and institutional frameworks that shape behavior and opportunities. Gender Role Theory further explains how remote work often reflects and reinforces persistent gender norms, as women continue to shoulder the majority of domestic and caregiving responsibilities even while engaging in paid professional work. Similarly, Boundary Theory

highlights the blurring of physical and psychological boundaries between work and family life in WFH settings, frequently leading to work–life imbalance and emotional strain.

From a sustainability perspective, WFH connects to all three pillars of sustainable development—economic (income generation and productivity), social (equity and well-being), and environmental (reduction in carbon emissions). To adequately analyze the impact of WFH on the SDGs, it is essential to ground this investigation in a theoretical understanding of how technological shifts interact with socio-economic systems. The Transition Theory (Geels, 2002) provides a useful framework for this purpose. It posits that systemic change occurs through the interaction between niche innovations (such as WFH), socio-technical regimes (existing corporate and labor structures), and the socio-technical landscape (the wider political, economic, and cultural context). WFH can thus be viewed as a niche innovation that was dramatically scaled up during the COVID-19 pandemic, creating pressure on the established socio-technical regime of centralized office work and forcing a reconfiguration of organizational rules, practices, and technologies. Furthermore, the concept of spillover effects (Nilsson et al., 2016) is crucial for understanding the interconnections among the 17 SDGs. The goals are not isolated; progress in one area can either enable or hinder progress in others.

This study explicitly investigates these spillovers by examining how WFH's positive environmental spillovers (e.g., contributions to SDG 13: Climate Action) may simultaneously produce negative social spillovers (e.g., adverse effects on SDG 5: Gender Equality and SDG 8: Decent Work and Economic Growth), and vice versa. Adopting this systemic perspective allows for a nuanced understanding of WFH in not as simply "good" or "bad," but as a complex social and technological intervention within an interconnected system.

Finally, the Capability Approach (Amartya Sen, 1999) provides a normative basis for analyzing the social equity dimensions of WFH. This approach evaluates well-being based on individuals' capabilities—that is, their real and effective opportunities to lead the lives they value. The impact of WFH can therefore be assessed in terms of how it expands or constrains individuals' capabilities for example, the capability to work productively, to enjoy good health, to participate socially, and to maintain work–life balance. This framework helps explain why the same WFH policy can have divergent outcomes for different individuals, depending on their pre-existing resources, socio-economic position, and access to digital infrastructure. Together, these theoretical perspectives provide a comprehensive sociological foundation for analyzing the complex relationship between WFH practices and the Sustainable Development Goals.

Objective of the Study

The main objective of this study is to examine the relationship between Work from Home (WFH) practices and the Sustainable Development Goals (SDGs). The study seeks to explore how the growing trend of remote work aligns with the broader global agenda for sustainable development. It aims to understand whether WFH contributes to or hinders progress toward achieving specific SDGs, particularly in the areas of health and well-being, gender equality, decent work, innovation, reduced inequalities, and climate action. By analyzing secondary data and existing literature, the paper investigates the social, economic,

and environmental dimensions of WFH and evaluates its potential to support inclusive and sustainable growth in the post-pandemic world.

Methodology

This study is qualitative and descriptive in nature. It is based entirely on secondary sources, including academic journal articles, official reports, and global databases from organizations such as the United Nations, International Labour Organization (ILO), World Bank, and OECD. The method follows a systematic literature review approach to identify patterns, challenges, and outcomes of WFH in relation to the SDGs. Sociological interpretation is applied to understand the broader social context particularly issues of gender, inequality, and digital accessibility.

Result and Discussion

The relationship between Work-from-Home (WFH) practices and the Sustainable Development Goals (SDGs) is multidimensional, involving complex interactions between social, economic, and environmental systems. From a sociological perspective, WFH must be understood not only as a technological or organizational innovation but also as a transformation of social life and work relations.

Work from Home and SDG 3 (Health and Well-being)

Table 1: Literature on WFH and SDG 3

Author(s) & Year	*Key Findings*
Goel, Singla & Kumar (2025)	WFH frameworks enhance efficiency and reduce burnout among healthcare workers.
Bolisetty & Sharma (2023)	WFH ensured safety during COVID-19 but increased isolation and mental strain.
Moglia, Hopkins & Bardoel (2021)	Identifies coherence between WFH, decent work, and well-being.
Goel & Singla (2025)	Remote work affects stress, satisfaction, and productivity.
Seevers & Lopez Mamblona (2021)	Organizational support enhances well-being during remote work.
Cârstea et al. (2024)	Mixed effects: reduced exposure but increased sedentary risks.
Shinno et al. (2023)	Hybrid models improve health balance and productivity.
Kukreti et al. (2024)	Digital tools strengthen telehealth and well-being.
Garnita et al. (2024)	Finds limited WFH-related health studies.

Source: *Author's compilation based on Google Scholar sources (2021–2025).*

Work-from-home (WFH) practices have produced a complex set of outcomes for health and well-being, directly influencing the objectives of Sustainable Development Goal 3 (SDG 3), which aims to "ensure healthy lives and promote well-being for all at all ages." On the positive side, WFH has reduced commuting time and stress, contributed to better air quality, and provided workers with greater flexibility, thereby enhancing certain dimensions of mental health (Moglia, Hopkins, & Bardoel, 2021). These

structural changes have allowed employees to spend more time with family, rest, and self-care, aligning with global health and sustainability priorities (Goel, Singla, & Kumar, 2025). However, the same shift has also generated new health challenges. Prolonged screen exposure, sedentary behavior, lack of ergonomic setups, and social isolation have contributed to rising levels of anxiety, burnout, and musculoskeletal problems among remote workers (Bolisetty & Sharma, 2023; Shinno, Ukai, & Fukawa, 2023). The World Health Organization (WHO, 2022) and the International Labour Organization (ILO, 2023) have warned that remote workers frequently experience longer working hours and diminished social interaction, which may compromise long-term psychological and physical well-being.

Sociologically, these patterns represent a profound transformation in the organization of time and space. The home, traditionally a domain of rest and social reproduction, has been reconstituted as a site of labor and productivity. This dual role creates blurred boundaries between personal and professional spheres, amplifying emotional strain and reducing opportunities for social support (Seevers & Lopez Mamblona, 2021). As Moglia et al. (2021) note, such reconfigurations of work environments necessitate coherent policies to ensure that telework supports, rather than undermines, health-related SDGs. Emerging research in the healthcare sector further underscores how integrating WFH frameworks can improve workforce well-being and organizational sustainability when managed effectively (Kukreti, Sehajpal, Tiwari, & Sood, 2024). Goel and Singla (2025) argue that by investing in ergonomic design, digital health support, and mental well-being initiatives, institutions can transform WFH into a mechanism that not only safeguards but also advances SDG 3 outcomes. In sum, while WFH has potential to advance good health and well-being through reduced stress and flexibility, its unregulated expansion risks intensifying health inequalities, mental fatigue, and social alienation. Achieving SDG 3 in the context of remote work thus depends on fostering a sociotechnical balance — integrating supportive workplace policies, digital wellness infrastructure, and equitable health access for all workers.

Work from Home and SDG 5: Gender Equality

Table 2: Literature on WFH and SDG 5

Author(s) & Year	*Study Focus, Method, and Key Findings*
Moglia, Hopkins & Bardoel (2021)	Conceptual study linking telework with SDG 5. Emphasizes policy coherence and institutional support to ensure gender-equitable outcomes of remote work.
UN Women (2022)	Global data report showing women's unpaid work rose by over 30% during COVID-19, intensifying gender inequality under WFH conditions.
Ranieses (2022)	Theoretical review on unpaid care work as a major barrier to achieving SDG 5; highlights need for its recognition in policy frameworks.
Sahni, Yadav & Aggarwal (2023)	Scoping review revealing that WFH reinforced traditional gender roles and disrupted women's work–life balance.
Awang & Nadzri (2023)	Empirical Malaysian study on flexible work; found improved time control but persistent domestic workload and patriarchal norms.
Pachauri & Verma (2023)	Intersectional analysis showing pandemic deepened gender disparities in labor and care responsibilities.
Vohra, Singh & Dutta (2024)	Systematic review finding that flexible work enhances inclusion but lacks gender-sensitive design to advance SDG 5.

Source: *Author's compilation based on Google Scholar sources (2021–2025).*

Work from Home (WFH) arrangements have produced ambivalent outcomes in relation to Sustainable Development Goal 5 (SDG 5), which seeks to promote gender equality and empower all women and girls (Moglia, Hopkins, & Bardoel, 2021). On one hand, remote and hybrid work models have offered women greater flexibility to reconcile paid employment with domestic and caregiving responsibilities, potentially enhancing their participation in the labor force (Awang & Nadzri, 2023; Vohra, Singh, & Dutta, 2024). On the other hand, the same arrangements have reinforced entrenched gender norms, as women continue to bear a disproportionate share of unpaid household and care work (UN Women, 2022; Ranieses, 2022).

Empirical studies reveal that during the COVID-19 pandemic, women's unpaid working hours increased significantly, reflecting the persistence of the "double burden" phenomenon (Sahni, Yadav, & Aggarwal, 2023). This imbalance underscores that flexible work, without supportive organizational and policy frameworks, can reproduce rather than reduce patriarchal structures within households and workplaces (Pachauri & Verma, 2023).

From a sociological perspective, this dynamic exemplifies gender role strain theory and the gendered division of labor, wherein women's simultaneous engagement in professional and domestic spheres generates conflicting expectations and stress. While telework was initially envisioned as a gender-inclusive practice, its uneven implementation highlights the structural limitations that hinder equitable outcomes. As Moglia et al. (2021) note, advancing gender equality through remote work requires policy coherence—linking digital inclusion, labor rights, and gender-sensitive governance—to ensure that WFH contributes meaningfully to the achievement of SDG 5.

WFH and SDG 8: Decent Work and Economic Growth

Work From Home (WFH) plays a complex role in advancing Sustainable Development Goal 8 (SDG 8)—which emphasizes decent work and economic growth. On one hand, it has strengthened economic sustainability by enabling organizations to maintain productivity during disruptions like the COVID-19 pandemic and by opening up new digital employment opportunities (Zostel–An Emerging Sustainable Model of Work from Home, Anupama et al., SDMIMD, 2023). It has also encouraged virtual training and skill development, reducing workforce inequalities and supporting the broader SDG agenda (Bilderback, Movahed & McCarthy, 2025).

However, while WFH enhances flexibility and inclusivity, it also introduces new forms of labor precarity. According to the International Labour Organization (ILO, 2023), only a minority of countries have comprehensive telework regulations that ensure workers' rights and protections. This lack of governance has blurred the distinction between formal and informal work, often resulting in irregular working hours, job insecurity, and inadequate compensation. Sociologically, this reflects a core tension within post-industrial labor systems—between the promise of flexibility and the reality of digital exploitation. Empirical studies reinforce this duality. Moglia, Hopkins and Bardoel (2021) argue that telework and hybrid work models can align with SDG 8 if supported by coherent policies ensuring fair labor practices and social protection. Similarly, Albastaki, Ubaid, and Rashid (2024) emphasize that WFH can contribute to SDG 8 by making technical jobs in sectors like electricity utilities more accessible and sustainable through digital transformation.

Further, Turner, Suki, and Jiang (2024), in their study on Malaysia, reveal that digital transformation has created skill shortages and occupational shifts that require targeted interventions to achieve decent work. Complementarily, Sunar Bukulmez et al. (2025) explore how new work environments can integrate design strategies to enhance employee well-being and productivity, supporting the broader goals of economic sustainability. From a sociological perspective, WFH symbolizes a reconfiguration of labor relations in the knowledge economy. The emergence of remote managerial roles—such as Chief Remote Officers (Tayal, Rajagopal & Mahajan, 2023)—illustrates how organizations are institutionalizing remote work within their structures. Yet, this institutionalization does not automatically guarantee equity or protection. Without adequate labor safeguards, WFH risks reinforcing class and gender inequalities, where marginalized groups—especially women—may face the dual burden of paid work and unpaid care labor (Zheng, 2024). In conclusion, aligning WFH with SDG 8 requires structural interventions: formal recognition of telework in labor laws, equitable access to digital infrastructure, fair compensation frameworks, and strong social dialogue mechanisms. Only through these measures can the benefits of remote work—economic resilience, innovation, and inclusivity—be realized without compromising the principles of decent and dignified work.

Table 3: Literature on WFH and SDG 8

Author(s) & Year	*Method / Key Findings / Insights*
Moglia, Hopkins & Bardoel (2021)	Conceptual study; telework aligns with SDG 8 when supported by coherent labor policies ensuring fair work conditions.
Anupama, Thomas, Jose & John (2023)	Case study; WFH promoted business resilience and cost efficiency, aiding economic sustainability during the pandemic.
Albastaki, Ubaid & Rashid (2024)	Framework analysis; WFH in technical sectors enhanced productivity and inclusivity, supporting decent work goals.
Bilderback, Movahed & McCarthy (2025)	Comparative study; virtual training reduces workforce inequality and strengthens implementation of SDG 8.
Sunar Bukulmez, Girginkaya Akdag et al. (2025)	Design case; sustainable workspace design improves employee well-being and organizational productivity.
Turner, Suki & Jiang (2024)	Analytical study; digital transformation creates new jobs but also skill gaps, affecting decent work outcomes.
Tayal, Rajagopal & Mahajan (2023)	Empirical study; emergence of "Chief Remote Officers" shows WFH institutionalization, yet equity challenges persist.
Zheng (2024)	Literature review; WFH improves flexibility but increases gender inequality and stress for informal workers.
International Labour Organization (ILO, 2023)	Policy review; limited global telework regulation blurs formal–informal boundaries, risking exploitation and insecurity.

Source: *Author's compilation based on Google Scholar sources (2021–2025).*

WFH enhances flexibility and economic continuity but simultaneously risks in formalization and inequality. From a sociological lens, it illustrates the post-industrial tension between autonomy and exploitation, demanding stronger labor safeguards and inclusive digital policies to ensure *decent work for all*.

WFH and SDG 9: Industry, Innovation, and Infrastructure

Work from Home (WFH) has emerged as a key enabler of SDG 9 (Industry, Innovation, and Infrastructure) by driving digital transformation, promoting technological innovation, and reshaping industrial practices. The pandemic accelerated the use of information and communication technologies (ICTs) and space-based digital tools to sustain productivity and ensure economic continuity. For example, Perwitasari (2023) highlights that mastery of digital and space technologies during the pandemic enhanced sustainable development capacity, especially in countries like Indonesia. Similarly, the shift to remote and hybrid work accelerated technological adaptation in both public and private sectors, reinforcing the importance of resilient and flexible infrastructures (Iradukunda et al., 2025). The expansion of digital platforms and blended work models opened new opportunities for innovation but also revealed stark inequalities in access and participation. In developing countries such as India, the digital divide stemming from uneven access to electricity, devices, and stable internet continues to exclude large segments of the rural workforce from the digital economy (S Anupama et al., SDMIMD). Corporate responses to WFH also contributed to achieving SDG 9 through innovation-driven CSR and the adoption of flexible work models (Sinha & Vig, 2025). Businesses leveraged technology for operational sustainability and industrial continuity, promoting the integration of digital solutions within infrastructure systems. Moreover, studies link WFH practices with transformations in urban infrastructure and mobility patterns. Reduced commuting and office-space demand have lessened environmental pressures and reshaped transport infrastructure (Nurcahyati, Jopson & Kusuma, 2024; Hassan, 2024). These changes signify the interconnection between remote work and sustainable urban-industrial planning, contributing to greener and smarter cities.

However, as Bonime-Blanc & Disparte (2022) caution, exponential technologies require responsible governance and inclusive innovation to prevent new forms of digital exclusion and ethical risks. Therefore, while WFH strengthens innovation ecosystems, it also necessitates policy frameworks that bridge digital inequities and foster socially inclusive industrial transformation. From a sociological perspective, WFH embodies the reorganization of industrial relations and labor processes under digital capitalism. It demonstrates how technology-mediated work reshapes class, spatial, and occupational inequalities—thus requiring social innovation alongside technological innovation for genuine progress toward SDG 9.

Table 4: Review of Literature on WFH and SDG 9

Author(s) & Year	*Method / Approach / Key Findings / Insight (Relevance to SDG 9)*
Iradukunda, P.G. et al. (2025)	Conceptual and case analysis showing that blended and remote work accelerated digital adaptation in African cities, demonstrating how WFH supports innovation and resilient infrastructure.
Perwitasari, I. (2023)	Empirical case study (Indonesia); space technology use advanced digital sustainability, highlighting technological innovation as a tool for achieving SDGs.
S. Anupama, A.M. Thomas, R. Jose & N.A. John (2022)	Institutional case study (India); WFH spurred innovation in work models and digital infrastructure, presenting it as a sustainable model of work and industry.
Bonime-Blanc, A. & Disparte, D.A. (2022)	Conceptual/theoretical study emphasizing that exponential technologies require responsible governance and ethical risk management within SDG 9.

Sinha, V. & Vig, S. (2025)	Corporate survey (India); companies adopted flexible, technology-driven CSR practices, showing industry-level innovation and adaptive infrastructure.
Nurcahyati, S.W., Jopson, A. & Kusuma, A. (2024)	Quantitative transport study indicating WFH reduced car ownership and commuting emissions, linking telework to sustainable transport and urban infrastructure.
Hassan, N. (2024)	Analytical urban impact study showing that WFH reduced office space use and reshaped real estate patterns, connecting remote work to restructured industrial and urban infrastructures.
Lee, H.L. et al. (2025)	Policy analysis (Malaysia); national roadmap aligns scientific innovation with SDG goals, reflecting integration of innovation and sustainable industry development.

Source*: Author's compilation based on Google Scholar sources (2021–2025).*

WFH and SDG 10: Reduced Inequalities

Work from Home (WFH) presents both opportunities and challenges in achieving SDG 10 – Reduced Inequalities. Empirical studies reveal that the capacity to work remotely is unequally distributed across socio-economic, spatial, and occupational lines. High-income, urban, and digitally skilled workers benefit more from telework, while those in low-income or informal sectors face digital exclusion (Bonacini, Gallo, & Scicchitano, 2021; Nwosu & Kollamparambil, 2022). Research from Germany and Japan similarly highlights that urban residents and knowledge workers are better positioned to adopt remote work, reinforcing existing class and regional disparities (Irlacher & Koch, 2021; Tomohiro, 2022). However, WFH also holds inclusive potential—especially for persons with disabilities and women—by expanding access to employment beyond traditional workplace barriers (Schur, Ameri, & Kruse, 2020; Ameri et al., 2023). From a sociological perspective, WFH simultaneously reproduces and challenges inequality: it privileges those with greater digital and economic capital (Bourdieu) while offering new agency within structural constraints (Giddens). For WFH to contribute sustainably to SDG 10, policies must enhance digital infrastructure, literacy, and institutional support for marginalized groups.

Table 5 : Review Table: ***WFH and SDG 10 (Reduced Inequalities)***

Author(s) & Year	*Method / Approach / Key Findings & Insights (Relevance to SDG 10)*
Bonacini, Gallo & Scicchitano (2021)	Econometric modeling using Italian labor data; found that WFH increases income inequality as high-skilled workers benefit more from digital adaptability, creating a "new normal" of unequal digital capitalism.
Nwosu & Kollamparambil (2022)	Quantitative analysis (South Africa); revealed socio-economic inequality in WFH ability, with digital access and education as key predictors of inclusion.
Irlacher & Koch (2021)	Regional labor data analysis (Germany); showed that remote work intensifies regional inequality, as urban and knowledge-based areas adapt faster than rural regions.

Tomohiro (2022)	Survey-based study (Japan); found that urban residents, especially in Tokyo, have greater WFH access, revealing class and spatial inequalities.
Garrote Sanchez et al. (2021)	Cross-country labor market assessment; demonstrated that globally, only a minority can work remotely, with opportunities distributed unequally by income, occupation, and nation.
Xiang (2022)	Theoretical and qualitative review; argued that WFH creates new mobility inequalities, benefiting global digital elites while excluding low-tech workers.
Möhring et al. (2020)	Quantitative survey (Germany); found that WFH slightly reduces gender inequality but the care burden remains largely on women.
Tajaddini, Gholipour & Arjomandi (2023)	Empirical study (multi-country); concluded that WFH contributes to housing wealth inequality, as homeowners gain more from digital flexibility.
Ríos Villacorta et al. (2024)	Case study (Peru's public sector); found that ICT-supported telework reduces regional inequality and promotes inclusive digitalization, advancing SDG 10.
Tabassum et al. (2025)	Conceptual analysis; argued that hybrid work can reduce inequality only when supported by inclusive corporate and digital policies.
Ling, Qian & Amy (2025)	Organizational case analysis; showed that inclusive corporate culture and employee engagement enhance workplace equity.
Ameri et al. (2023)	Quantitative study; identified that telework provides new opportunities for persons with disabilities (PwDs), improving inclusion in labor markets.
Schur, Ameri & Kruse (2020)	Mixed-method analysis; described telework as a "silver lining" for workers with disabilities, enabling participation if digital tools are accessible.
Kumari & Lenka (2024)	Conceptual framework; advocated for telework as a human resource strategy to promote inclusive employment for persons with disabilities.
Morris (2023)	Case study (developing countries); observed that remote work improves employment prospects for PwDs but digital barriers persist in low-income contexts.

Source: *Author's compilation based on Google Scholar sources (2020–2025).*

WFH and SDG 13: Climate Action

Environmental sustainability represents one of the strongest alignments between Work-from-Home (WFH) practices and the Sustainable Development Goals (SDGs). Reduced commuting and lower office energy demand have been identified as key pathways through which telework contributes to SDG 13 – Climate Action. Empirical studies have shown that teleworking can substantially reduce transportation-related carbon emissions, though the overall climate benefit depends on urban form, household energy use, and organizational practices. Larson and Zhao (2017) used an urban simulation model to demonstrate that while telework can decrease commuting emissions, it may also encourage urban sprawl—resulting in long-term increases in energy consumption. Similarly, Kharvari, Azimi, and O'Brien (2021) conducted

scenario analyses showing that the net climate effect of telework varies widely: in best-case scenarios, GHG emissions decline significantly, but under poor building efficiency or extensive home energy use, benefits diminish.

A systematic review by Hook, Sovacool, and Sorrell (2020) synthesized findings from 39 studies and estimated an average GHG reduction potential of only ~0.7%, highlighting rebound effects such as increased non-commute travel or home energy demand. Curtis (2020) similarly argued that pandemic-driven telework offered temporary environmental relief but may normalize car-dependent suburban lifestyles, offsetting earlier gains. Recent national and modeling studies further contextualize these trade-offs. Boarnet et al. (2024) found that remote work during the COVID-19 period significantly reduced transportation-related emissions in the United States, though sustained benefits depend on the evolution of hybrid work and transit policy. Sirati (2025) and Sepanta et al. (2024, 2025) examined the net energy implications of hybrid models across domains—homes, offices, transportation, and ICT infrastructure—showing that residential energy increases often offset commuting savings unless office occupancy is reduced. Nowshin and Hossain (2024) extended this analysis globally, estimating that telework expansion could reduce emissions by up to 14% in high-income economies but warned that digital inequality constrains benefits in developing contexts. Overall, the evidence underscores that while WFH contributes to decarbonization goals, its success in advancing SDG 13 depends on systemic integration—including energy-efficient housing, ICT sustainability, urban transport planning, and digital equity. In sociological terms, WFH reshapes not only the geography of work but also the ecological metabolism of urban life, producing both environmental gains and new sustainability challenges.

Table 6: Literature on WFH and SDG 13

Author(s) & Year	*Method / Approach / Key Findings & Insights (Relevance to SDG 13)*
Larson & Zhao (2017)	Numerical simulation of urban models; found that telework reduces commuting-related emissions but promotes suburban sprawl, increasing long-term energy demand. Highlights urban-form trade-offs for sustainable climate policy.
Hook, Sovacool & Sorrell (2020)	Systematic review of 39 global studies; estimated average GHG reduction potential of only about 0.7%. Rebound effects such as higher home energy use and non-commute travel often offset savings. Calls for integrated policy to achieve SDG 13.
Curtis (2020)	Qualitative and policy analysis; found that pandemic-driven telework temporarily reduced emissions but risks long-term urban decentralization and increased car dependency. Emphasizes behavioral sustainability.
Kharvari, Azimi & O'Brien (2021)	Scenario-based modeling (Canada); results show that energy savings occur only in energy-efficient buildings with optimized occupancy, while poorly insulated homes lead to adverse outcomes.
Gavranovic (2023)	Literature review; synthesizes direct and indirect energy impacts and finds telework beneficial mainly when combined with office downsizing and renewable energy adoption.
Boarnet et al. (2024)	National-level empirical analysis (U.S.); found that remote work during COVID-19 significantly reduced transport emissions, but hybrid models may revive commuting unless transit and housing policies adapt.

Sepanta, Sirati & O'Brien (2024)	Quantitative assessment of hybrid models; hybrid work can cut GHG emissions by 30–50% when office downsizing occurs, but maintaining active office systems reduces overall benefits.
Nowshin & Hossain (2024)	Global economic–environmental modeling; predicted 10–14% CO_2 reduction potential in advanced economies from telework, but noted that digital inequality limits benefits in developing regions.
Sirati (2025)	Energy-use quantification in residential settings; found that home electricity and heating use rise during WFH, and net climate benefits depend on energy source mix and housing efficiency.
Sepanta (2025)	Cross-domain life-cycle analysis (home, office, transport, ICT); estimated ICT-related indirect emissions at 10–15% of total telework footprint. Concluded that overall GHG benefits depend on co-optimized home and office energy systems.

Source: *Author's compilation based on Google Scholar sources (2015–2025).*

Across studies, WFH and telework demonstrate conditional alignment with SDG 13 (Climate Action). While reduced commuting lowers carbon emissions, spillover effects—such as increased residential energy consumption, ICT use, and urban sprawl—complicate the net environmental outcome. Effective realization of SDG 13 thus requires systemic policy coherence integrating urban planning, digital infrastructure, and sustainable home energy practices.

Analysis

The synthesis of evidence across multiple Sustainable Development Goals (SDGs) reveals that Work from Home (WFH) represents a profound sociotechnical and socioecological transformation rather than a temporary labor adjustment. From a sociological standpoint, it operates as a structural reconfiguration of work, family, and technology, embedded within broader systems of inequality, sustainability, and global interdependence.

The analysis demonstrates that WFH exhibits multidirectional linkages across SDG 3 (Health and Well-being), SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation, and Infrastructure), SDG 10 (Reduced Inequalities), and SDG 13 (Climate Action). However, its contributions are uneven and contingent, shaped by access to digital capital, gendered labor divisions, and institutional policy frameworks. From an economic and industrial perspective, WFH strengthens productivity, innovation, and organizational resilience by decoupling work from physical spaces. This aligns with the post-industrial transition towards knowledge-based economies (SDG 8 and SDG 9). Yet, the benefits accrue disproportionately to those with secure employment, stable connectivity, and digital literacy, reinforcing socio-economic and spatial inequalities (SDG 10). Socially, WFH offers flexibility and autonomy that can enhance well-being (SDG 3) and women's participation in paid work (SDG 5). Nevertheless, the gendered structure of domestic labor continues to burden women with the dual responsibilities of professional and unpaid care work. This reflects enduring patriarchal arrangements and reveals the incomplete democratization of domestic space. Thus, without gender-sensitive labor policies and care infrastructure, WFH risks reproducing rather than reducing inequality. Environmentally, WFH's contribution to SDG 13 (Climate Action) lies in reducing commuting-related emissions and office energy consumption. However, the net climate benefit is conditional: increased residential energy use, ICT-related emissions, and urban sprawl can offset gains if not accompanied by energy-efficient housing, green

digital infrastructure, and sustainable transport systems. Therefore, environmental benefits are dependent on systemic integration across sectors, echoing the principle of policy coherence at the core of the 2030 Agenda. Theoretically, the findings resonate with Structuration Theory (Giddens, 1984), which posits that individuals' actions both shape and are constrained by social structures. WFH exemplifies this duality—employees exercise agency through flexible work arrangements, yet remain embedded in pre-existing gender norms, institutional hierarchies, and infrastructural disparities. Similarly, the Transition Theory (Geels, 2002) situates WFH as a "niche innovation" scaled up during the pandemic, now challenging the established socio-technical regime of centralized work. The Capability Approach (Sen, 1999) further reveals that while WFH expands freedoms for some, it constrains others—especially those lacking adequate digital and spatial resources—thereby reinforcing inequality in capabilities and opportunities. WFH operates as both a driver and a disruptor of sustainable development. It fosters progress toward multiple SDGs but simultaneously generates new social risks and exclusions. This dialectical nature underscores the need for integrated policy design, where digitalization, labor rights, and social equity are treated as mutually reinforcing dimensions of sustainability.

Conclusion

This paper set out to examine the alignment between Work from Home (WFH) practices and the United Nations Sustainable Development Goals (SDGs) through a sociological lens. The central objective was to assess whether WFH promotes or hinders sustainable and inclusive development, particularly in relation to health and well-being (SDG 3), gender equality (SDG 5), decent work and economic growth (SDG 8), industry, innovation, and infrastructure (SDG 9), reduced inequalities (SDG 10), and climate action (SDG 13).

Employing a qualitative and descriptive approach, this study was based on a systematic review of secondary data drawn from scholarly literature, policy documents, and reports published by international organizations such as the United Nations, International Labour Organization (ILO), World Bank, and OECD. A sociological framework guided the interpretation of findings, focusing on structural issues such as gender relations, inequality, work–life balance, and digital access. The analysis reveals that Work from Home (WFH) carries both enabling and constraining implications for sustainable development. It supports SDG 3 (Good Health and Well-being) by reducing commuting stress and enhancing flexibility; however, it may also contribute to mental health challenges due to social isolation and prolonged working hours. It advances SDG 5 (Gender Equality) by providing women with greater flexibility to balance professional and domestic roles, yet it often reinforces traditional gender norms and unequal care responsibilities. In relation to SDG 8 (Decent Work and Economic Growth), WFH sustains employment and productivity during crises but simultaneously increases job insecurity and the informalization of work. It promotes SDG 9 (Industry, Innovation, and Infrastructure) by accelerating digital innovation and technological adaptation, while also exposing persistent disparities in access between urban and rural areas. Similarly, it partly supports SDG 10 (Reduced Inequalities) by creating inclusion opportunities for marginalized groups, although the benefits remain concentrated among individuals with higher education levels and better digital resources. Finally, it aligns with SDG 13 (Climate Action) through the reduction of transportation-related emissions, yet the associated increase in household energy consumption and electronic waste may diminish its overall environmental benefits.

From a sociological perspective, Work from Home represents a transformative reorganization of social life, influencing the structure of work, family dynamics, and patterns of social interaction. It embodies the dual nature of modernization—creating new pathways for flexibility and sustainability while reproducing existing social inequalities along lines of gender, class, and digital privilege. The findings suggest that the potential of WFH as a driver of sustainable development depends on how effectively societies address these structural and policy challenges. Strengthening inclusive digital infrastructure, ensuring gender-sensitive labor policies, recognizing and redistributing unpaid care work, and enforcing fair labor regulations are essential steps. Moreover, adopting environmentally responsible practices to balance home and workplace energy consumption can enhance WFH's contribution to climate action. In conclusion, when grounded in the principles of fairness, inclusivity, and sustainability, Work from Home can evolve into a viable pathway toward achieving multiple SDGs. It can foster a work culture that is economically productive, socially equitable, health-promoting, and environmentally responsible—thus supporting a more sustainable and resilient post-pandemic world.

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