ALIGNING SDG & ESG: SHAPING COMMON GOOD HRM AND ORGANIZATIONAL CONSCIOUSNESS FOR SUSTAINABLE DEVELOPMENT IN THE INDIAN POWER GENERATION SECTOR

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ABSTRACT

The Indian power generation sector, as a cornerstone of national growth, faces an extreme challenge to balance rapid growth and sustainability issues. This research explores the possibility of aligning Sustainable Development Goals (SDGs) and Environmental, Social, and Governance (ESG) frameworks to shape Common Good Human Resource Management (CGHRM) practices and Organizational Consciousness to drive sustainable development. SDG priorities and ESG-driven accountability can prepare HRM dimensions of organizations to go beyond efficiency to ensure equity, ethical responsibility, and long-term resilience. The role of organizational consciousness with values, culture, and leadership orientation in designing sustainability into workforce policies, talent strategies, and decision-making has been highlighted in this study. Such alignment is extremely important for the power sector. Transition to renewable energy and reducing the use of non-fossil fuels are some of the important solutions to reach the net-zero target by 2070. This study adopts an explorative qualitative approach as research methodology. Research methods include an in-depth study of literature, journals, policy frameworks, and thematic insights from power sector experts to identify patterns linking SDG-ESG alignment with CGHRM and organizational consciousness. Findings suggest that SDG-ESG-driven CGHRM rooted in sustainability and consciousness can ensure social justice, environmental consciousness, in addition to corporate purpose.

Keywords: Indian power generation sector, SDG, ESG, Common Good HRM, Organizational Consciousness.

INTRODUCTION

The evolving dynamics of globalization and rapid technological advancements are reshaping the world, presenting both opportunities and challenges for achieving decent work and sustainable development. As industries integrate artificial intelligence, automation, and digital platforms, labour and industrial relations are undergoing a profound transformation. While these innovations enhance efficiency and productivity, they also disrupt traditional employment structures, raising concerns about job security, fair wages, and workers' rights in developing economies like India, where the power generation sector plays a crucial role in economic progress. These challenges become even more pronounced. It examines the obstacles to advocating for decent work, the impact of emerging technologies on employment, and the role of policy interventions in fostering ethical labour practices. By analysing innovative HRM strategies and regulatory measures, the study aims to provide insights into how conscious power-generating organizations can drive change management and sustainable developments while ensuring workers' rights and well-being in a rapidly evolving global economy.

The Indian power generation sector plays a critical role in shaping the country's economic development, while also being a significant contributor to environmental challenges. As the global emphasis on sustainability intensifies, the sector faces mounting pressure to transform its operations, embrace renewable energy, and align with the principles of sustainable development. In this context, the concept of a conscious organisation – one that prioritizes ethical practices, social responsibility, and long-term environmental stewardship – has gained momentum. This shift is supported by the emerging framework of CGHRM, which focuses on the collective well-being of employees, communities, and the environment, creating a workforce that is more engaged, responsible, and aligned with sustainable practices. This workforce can take part in the Government of India's national action plan on climate change, National Solar Mission, and the National Mission for Enhanced Energy Efficiency.

By integrating conscious organizational values and CGHRM, power generation companies can drive change management initiatives that foster operational efficiency, economic growth, and environmental sustainability. This approach not only leads to better resource management and energy efficiency but also enhances employee satisfaction and company performance, offering a path towards long-term resilience and profitability. The sustainability dimension of this transformation is crucial, as it ensures that the sector contributes to India's broader goals of reducing carbon emissions, supporting renewable energy adaptation, and promoting socio-economic development.

This research explores the intersection of these dimensions – conscious organization, CGHRM, change management, and sustainable development – to understand how they collectively drive transformation with India's power generation sector so that greenhouse gas generation can be reduced to limit global temperature rise in this century 2 degree centigrade (preferably 1.5 degree centigrade) compared to pre-

industrial level by phasing out fossil fuel and limiting cutting of trees and displacement of local people for installation of power generation plant.

LITERATURE REVIEW

Globalization and Decent Work

Globalization has significantly altered labor markets, creating both opportunities and challenges for workers worldwide. Studies suggest that while globalization fosters economic growth and job creation, it also exacerbates inequalities and job insecurities (Rodrik, 2018). The International Labor Organization (ILO) emphasizes that achieving decent work within a globalized economy requires robust policies to mitigate wage disparities and precarious employment (ILO, 2021). Particularly in developing economies like India, the power generation sector faces challenges in labor protections amid the pressure of global competition (Sharma & Gupta, 2020).

Technological Advancements and Labor Market Transformations

The rapid integration of artificial intelligence (AI), automation, and digital platforms is reshaping industrial relations. Brynjolfsson and McAfee (2017) argue that while automation enhances productivity, it leads to job displacement, especially in routine-based occupations. In the power generation sector, smart grids and predictive maintenance systems reduce the demand for traditional roles while creating new opportunities for highly skilled workers only. (Kumar & Patel, 2019). However, the challenge remains in ensuring fair wages and job security for those at risk of displacement (Autor, 2019). The transition requires comprehensive workforce reskilling programs and government policies that promote labor market adaptability (World Economic Forum, 2022).

Labor Rights and Global Supply Chains

Despite international frameworks like the United Nations Guiding Principles on Business and Human Rights, many workers in global supply chains face poor working conditions, wage suppression, and lack of collective bargaining rights (Barrientos, 2020). Studies indicate that multinational corporations often prioritize cost efficiency over ethical employment practices, particularly in developing nations (Nolan & Bott, 2018). In the Indian power sector, subcontracting and informal employment arrangements further complicate the enforcement of labor rights (Ghosh & Ranjan, 2021). Strengthening governance mechanisms and enforcing corporate accountability are essential to safeguarding workers' rights.

Common Good HRM and Conscious Organizations

Recent research highlights the role of ethical HRM in promoting sustainable development. The CGHRM framework, which emphasizes fairness, well-being, and long-term socio- economic benefits, has gained traction as an effective strategy for balancing corporate success with employee, social, community, and environmental welfare and thus makes the organization conscious or aware to drive positive change towards a clean and green future. Implementing HRM strategies that prioritize workers' rights not only enhances job quality but also

fosters resilience in industries facing rapid technological shifts (Budd & Zagelmeyer, 2020). This approach fosters employee participation in decision-making, ensures job security, and promotes practices benefiting all stakeholders, thereby contributing to the common good. In the Indian power generation sector, conscious organizations that integrate CGHRM practices can drive equitable growth while contributing to the broader goals of Sustainable Development Goals (Mishra & Verma, 2022).

Policy Interventions for Sustainable Employment

Governments, international organizations, and corporations play a crucial role in addressing labor market disruptions. The ILO (2021) advocates for comprehensive labor laws that ensure fair wages, social protections, and safe working environments.

Policy measures such as minimum wage regulations, union rights protections, and investment in worker resilient programs have been successful in fostering decent employment in several economies (Freeman, 2020). In India, initiatives like Skill India and Make in India aim to bridge the skill gap and enhance workforce adaptability to technological changes (GoI, 2021). However, effective implementation remains a challenge due to regulatory inefficiencies and resistance from corporate stakeholders (Chakraborty & Banerjee, 2021).

Relevance of Artificial Intelligence (AI), Artificial General Intelligence), SDG 8, SDG 9, and SDG 12

SDG 8: Decent Work and Economic Growth

The goal aims to promote sustained, inclusive growth, full and productive employment, and decent work for all. CGHRM practices by implementing fair labor practices, providing opportunities for professional development, and ensuring equitable compensation, thus fostering a work environment conducive to economic growth and employee well-being (United Nations Sustainable Development Goals, 2015).

AI contributes to economic growth by enhancing productivity, optimizing business operations, and fostering innovation. However, ensuring fair labor practices, equitable access to AI-driven opportunities, and inclusive workforce policies is essential to mitigate job displacement risks (UNDP, 2021)

SDG 9: Industry, Innovation and Infrastructure

This goal focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. By encouraging a culture of continuous learning and innovation, CGHRM practices enable employees to contribute effectively to industrial advancements and industrial development, essential components of a sustainable power generation sector (United Nations Sustainable Development Goals, 2015).

AI accelerates industrial innovation through smart manufacturing, predictive maintenance, and digital transformation (Brennen & Kreiss, 2016). AGI, if realized, could revolutionize R&D, driving unprecedented advancements in infrastructure and industrial sustainability.

SDG12: Responsible Consumption and Production

This goal aims to ensure sustainable consumption and production patterns. CGHRM can influence this by promoting environmental awareness among employees, encouraging sustainable practices, and integrating eco-friendly policies into organizational operations, thereby reducing waste and optimizing resource use(United Nations Sustainable Development Goals, 2015).

Ai enables sustainable production by optimizing supply chains, reducing waste, and supporting circular economy initiatives. Meanwhile, learning models help monitor environmental impact, enhancing sustainable resource management (Jarrahi, 2018).

Role of ESG for introducing CGHRM in a conscious power generation company

As obtained from https://www.esgthereport.com/what-is-sdg-and-esg/ (2024), ESG stands for Environmental, Social, and Governance, and it refers to the way a company performs in these critical areas. It evaluates a company's impact on the environment, how it treats its employees and other stakeholders, and its governance practices. Investments that focus on ESG prioritize not just financial returns, but also ethical and sustainable business practices. Companies are increasingly under pressure to consider the social good when making operational decisions, and ESG helps them track and measure sustainability efforts. Research shows that adopting responsible environmental and social practices is vital for long-term success. While ESG reporting has traditionally been required for public companies like the power sector, middle and smaller level companies may not have focused on sustainability as much. What was once seen as optional has now become essential. Consumers and stakeholders are becoming more conscious and demanding more transparency. So, this is the high time to for companies to start prioritizing ESG.

ESG is a set of guiding principles that business adopts to ensure that they operate in a way that is sustainable in the long run. Implementing an ESG framework offers several significant advantages for businesses, investors, other stakeholders, society, the community, and the planet.

ESG encourages companies to take a more holistic approach to their operations with the help of CGHRM. Strategic HRM is to be elevated to the stage of CGHRM. By adopting Common Good practices and focusing on resource management, businesses can gain a competitive edge in today's market. ESG practices are also beneficial to investors and other stakeholders

because companies that follow these principles tend to be better governed, offering greater transparency and accountability. Especially in the light of recent global events, ESG has become an essential tool in the fight against climate change. The ongoing world events further accelerated the push towards green and clean energy investments and energy- conservation efforts.

ESG holds power and other industries accountable for their environmental and social impact, and serves as a roadmap for a more conscious and sustainable future.

Why aren't SDGs enough?

The Sustainable Goals (SDGs) alone are not enough to ensure true sustainable development because there are many complex challenges that still need to be addressed. Some of these issues include:

- Poor working conditions in supply chains, like unfair wages and long working hours.
- Corruption and bribery, which can lead to the suppression of workers' rights, especially in corrupt governments and organizations.
- Child labor, which continues to be a significant problem in the outsourced jobs of the power industries.
- Water scarcity, driven by droughts, climate change, or other factors.
- Mismanagement and corruption in the handling of natural resources like forests, minerals, coal, and oil used in the power generation sector. As obtained from https://www.esgthereport.com/what-is-sdg-and-esg/ (2024), without addressing these critical issues, it's impossible for any company to fully achieve the SDGs. For example, a company that outsourced its operation and that outsourced agency employs child labor is indirectly contributing to the exploitation of children. This is where ESG (Environmental, Social, and Governance) comes in - it holds companies accountable for their actions, ensuring they follow ethical and sustainable practices.

AI, AGI, and the Future Workforce

AI encompasses a range of technologies, from machine learning and neural networks to natural language processing and robotics. Current AI systems exhibit narrow intelligence, excelling at specific tasks but lacking human-like cognitive abilities (Russel & Norvig, 2021).

In contrast, AGI, often envisioned as a system capable of general reasoning and problem- solving, remains a theoretical construct with ongoing research (Goertzel, 2014).

Impact on Employment

AI-driven automation is transforming labor markets by displacing routine jobs while creating new roles that require advanced digital skills (Brynjolfsson & McAfee, 2017). Studies suggest that AI will augment rather than replace most jobs, with workers needing reskilling to remain competitive (Autor, 2015).

Workforce Adaptation and Skill Development

With AI's growing presence, education systems and corporate training programs must prioritize lifelong learning and digital literacy (World Economic Forum, 2020). Initiatives focusing on STEM education, soft skills, and human-AI collaboration are crucial for workforce sustainability.

CHALLENGES AND ETHICAL CONSIDERATIONS

The ethical implications of AI and AGI include bias in algorithms, data privacy concerns, and the potential for job polarization (Bostrom, 2014). Policymakers and organizations must establish regulatory frameworks to ensure AI aligns with human- centric values and sustainability goals.

Role of Change Management in the Power Generation Sector

Change management is an essential practice for navigating the complexities of organizational transformation towards

the conscious power generation sector. Emotional and psychological aspects of change emphasize that true change occurs when people transition through an internal process (Bridges, 2003). He argues that organizations often neglect these aspects, leading to resistance and inefficiency.

(Cameron & Green, 2004) provides a structured. Research-based approach to understanding and implementing change, highlighting models and techniques that help leaders guide their

teams through transitions. Their work synthesizes both theoretical frameworks and practical insights, offering a roadmap for successful change initiatives.

(Johnson, 1998) present a simple yet profound parable that underscores the importance of adaptability. Through the story, characters seeking cheese in a maze, Johnson explores the human tendency to resist change and the value of embracing it for personal and professional growth. His work resonates widely for its straightforward yet powerful message on the importance of adapting to change.

(Kotter, 2006) provides a compelling narrative around his 8-step change model, which is widely regarded as one of the most effective frameworks for leading change. His fable about a group of penguins trying to save their melting iceberg highlights the importance of creating a sense of urgency, building a coalition, and communicating a vision for change, among other principles. His work outlines the practical steps leaders can take to ensure sustainable, positive transformation in their organizations.

Together, these authors offer a multifaceted approach to managing change – focusing on emotional resilience, structured frameworks, adaptability, and leadership strategies. Their combined insights form a comprehensive guide to navigating the complexities of organizational change.

Application in the Indian Power Generation Sector

India's power generation sector is pivotal for the country's economic development and industrial growth. However, it faces challenges such as environmental concerns, technological obsolescence, and workforce management issues (NITI Ayog, 2021). Implementing CGHRM in this sector can address these challenges by:

Enhancing Employment Engagement and Retention

Involving employees indecision-making processes an recognizing their contributions can boost morale and reduce turnover rates (GOI, 2020).

Promoting Sustainable Practices

Educating and training employees on environmental sustainability can lead to the adoption of greener technologies and processes, reducing the sector's carbon footprint (GOI, 2020).

Fostering Innovation

A supportive HRM framework encourages creativity and innovation among employees, leading to the development of efficient and sustainable power generation methods (GOI, 2020).

RESEARCH GAP

Lack of integration between SDGs and ESG in HRM practices

Existing literature discusses SDGs and ESG separately, but lacks empirical research on how HRM strategies can effectively integrate both frameworks to enhance corporate sustainability There is limited research on how power sector companies in India align HRM practices with both SDGs at the macro level and ESG at the corporate level for sustainable workforce management.

Impact of AI and AGI-related change management on Workforce transformation in the power generation sector

While studies highlight AI's role in automation, productivity, and smart grids, there is limited research on AGI's potential for workforce adaptation and job displacement in the power generation sector.

The literature lacks comprehensive frameworks for reskilling and upskilling programs tailored to power generation sector employees in the wake of AI-driven transformations. The research also lacks the need for necessary change management in the AI and AGI environment of the power generation sector.

CGHRM strategies for sustainable employment amid technological advancements

Research primarily focuses on economic and technological factors influencing employment, but lacks insights into how CGHRM can address workforce challenges in a rapidly evolving digital economy. There is insufficient empirical data on the effectiveness of CGHRM in India's power generation sector, particularly concerning employment retention, workforce well-being, and innovation in sustainable energy practices.

Challenges in implementing ESG-driven HRM policies in developing nations

Existing studies focus on ESG in corporate governance and investment decisions, but do not extensively explore how HRM policies can address ESG concerns in workforce management, particularly in the Indian power generation sector.

Regulatory inefficiencies and corporate resistance to ESG-aligned HRM practices remain unexplored, requiring case studies and policy recommendations.

Ethical and policy considerations for AI & AGI in workforce sustainability

AI-driven automation's ethical implications, such as bias, privacy, and job displacement, have been discussed broadly, but there is limited research on ethical AI governance specifically for the power generation sector workforce.

Policies ensuring fair wages, job security, and equitable AI integration in labor markets remain fragmented and require structured frameworks for the power generation sector implementation. How can organizational consciousness help to develop ethical and policy considerations for the AI and AGI workforce? This needs further research.

Role of CGHRM in enhancing decent work (SDG 8) and sustainable industry (SDG 9) in power generation

The literature mentions SHRM as a key driver for workforce transformation, but empirical studies on SHRM's impact on SDG 8 (Decent work) and SDG 9 (Industry and innovation) are limited. How organizational consciousness can be developed using CGHRM practices needs further research.

The connection between HRM digitization (HR analytics, AI-powered hiring, and employee engagement) and sustainability in power generation is not well established.

RESEARCH QUESTIONS

- How does Common Good HRM influence sustainable development in the Indian power generation sector?
- What role do employee engagement, ethical leadership, and value-based governance play in promoting conscious organizational practices through CGHRM?
- How can CGHRM integrate sustainability into core HR functions such as talent acquisition, performance management, and employee development?
- What are the impacts of CGHRM practices on environmental conservation and socio-economic equity in India's renewable, pumped-storage, and conventional power generation initiatives?

RESEARCH OBJECTIVES

- To examine the influence of CGHRM on sustainable development in the Indian power generation sector.
- To investigate the potential of CGHRM in transforming profit-centric organizations into purpose-driven, conscious organizations in the power generation sector.
- To identify the best practices in CGHRM that contribute to achieving sustainable development goals in Indian power generation companies.
- To explore the role of employee engagement, ethical leadership, and value- based governance in promoting conscious organizational practices through CGHRM.
- To evaluate how CGHRM fosters an inclusive organizational culture and promotes holistic employee well-being.
- To explore the role of CGHRM in enhancing corporate social responsibility initiatives within India's power generation sector.
- To assess the impact of CGHRM practices on environmental conservation and socio-economic equity in India's renewable, pumped-storage, and conventional power generation initiatives.

RESEARCH PROPOSITIONS

H1: CGHRM has a positive influence on sustainable development in the Indian Power Sector.

H2: CGHRM practices significantly contribute to transforming profit-centric organizations into purpose-driven, conscious organizations in the Indian power sector.

H3: The implementation of best practices in CGHRM is positively associated with the achievement of SDGs in Indian power generation companies.

H4: Employee engagement, ethical leadership, and value-based governance play a significant role in promoting conscious organizational practices through CGHRM.

H5: CGHRM significantly enhances inclusive organizational culture and promotes holistic employee well-being.

H6: CGHRM practices have a significant impact on improving corporate social responsibility initiatives in the Indian power generation sector.

H7: CGHRM practices have a positive

impact on environmental conservation and socio-economic equity in India's renewable, pumped-storage, and conventional power generation initiatives.

RESEARCH DESIGN

This exploratory research will adopt a qualitative approach, focusing on collecting rich, in- depth insights from individuals who are experts in the field of power generation, sustainability efforts, and engineers and HRM professionals involved in the power generation sector. Data collection will be done through document review of the power generation companies, interviews, and focus group discussions.

The qualitative methodology within a cross-sectional framework allows for exploring experiences, perceptions, and a nuanced understanding of HRM practices related to sustainability and the Common Good, aiming to explore and understand the underlying phenomena of CGHRM practices as a driver of change management in the context of sustainable development in the Indian power generation sector.

RESEARCH METHODOLOGY

Research Approach

Phenomenological Approach

To understand the experience of individuals who are experts in the field of power generation, sustainability efforts, and engineers and HRM professionals involved in the power generation sector with respect to CGHRM practices, consciousness, and their impact on sustainability factors.

Case Study Methods

To explore specific instances where CGHRM and consciousness have been successfully integrated into the operations of power generation companies in India, multiple case studies from different companies will be included to explore a range of practices and contexts.

Sampling

Population

Experts in the field of power generation, sustainability efforts, and engineers and HRM professionals involved in the power generation sector.

Sampling Techniques

Positive Sampling will be used to select companies that are known to implement innovative HRM practices or have shown a commitment to sustainability.

Snowball Sampling will also be employed to identify further participants through initial interviewees who are well-versed in the subject matter.

Sample Size

The research will involve in-depth interviews with 23 participants across multiple organizations. This sample size is sufficient for gathering a wide range of qualitative insights while managing data analysis.

Data Collection

Document Review

Organizational reports, including HR policies, sustainability initiatives, and related documents, will be analyzed to understand how sustainability is integrated into HRM practices at a policy level.

Semi-structured Interviews

This will be conducted with the experts in the field of power generation, sustainability eff, including HR policies, sustainability initiatives, and related documents, will be analyzed to

understand how sustainability is integrated intoort, and engineers and HRM professionals involved in power generation sector to gather their perceptions, experience, and insights into CGHRM practices and sustainable development and how do these factors steer a power generation utility into a conscious organization.

Focus Groups

Group discussions will also be arranged to get a clear idea of the role of HRM practices in sustainability efforts and the concept of Common Good in the power generation sector.

Data Analysis

Thematic Analysis

This primary method will be used to analyze the interview transcripts, focusing on identifying recurring themes related to CGHRM, sustainability, and challenges in implementing these practices in power generation companies.

Coding Process

Transcripts will be coded manually, and the initial code will focus on emerging themes such as "employee well-being", "environmental sustainability", and "ethical leadership". These codes will then be grouped into higher-level themes.

Triangulation

Data from documents, interviews, and focus groups will be cross-checked to ensure consistency and increase the reliability of findings.

Ethical Considerations

Informed Consent

All participants will be provided with clear information about the research purpose and their role in it. After receipt of consent only, the interview process will be started.

Confidentiality

The identity of the participant and their responses will remain confidential. Data will be anonymized and securely stored.

Voluntary Participation

Participation will be voluntary, and participants can withdraw their consent at any time.

Validity and Reliability

Validity

As concepts have been clearly defined and comprehensive data collection has been ensured by selecting participants from a relevant background, construct, content, internal, and external validities have been maintained to reflect the true role of CGHRM in sustainable change in the Indian power generation sector.

Reliability

In this research, data collection has been done using a standardized method, and all the data have been cross-checked through the triangulation method to ensure data reliability.

FINDINGS AND IMPLICATIONS

After thematic analysis, the following points have emerged as findings:

Coal-based thermal generation is to be substituted by renewables for a smooth journey to a carbon-neutral destination.

Although the Pumped Storage Project (PSP) is a good option, it cannot be called fully renewable till the fuel mix in power generation includes less fossil fuel, as in PSP, the raw material is not water, but grid electricity. PSP pumps water from the lower reservoir when the cost of grid power is less due to high frequency, and generates electricity with 75% efficiency by releasing water from the upper

reservoir when the cost of power is high/very high. This will become clean energy only when we can generate renewable energy in higher capacities and use PSP as a storage medium by pumping water with the help of renewables, when the same will be available. Moreover, deforestation, changing the natural flow of water, three to

four PSP in one hilly region, resulting in land slippage and destruction of biodiversity, and the displacement of local people from that hill.

A hydel power station generates clean and green power, but is totally dependent on the availability of water flow. Of course, during the construction period, several issues were generated as stated above for PSP.

Solar power and wind power generation depend on the weather. Moreover, solar generation is available only during the daytime. The cost of installation is declining day by day, and these generations can be distributed through a microgrid using distributed generation. A battery can be used to make these available in a 24/7 mode. Remote rural villages can be served with the help of this arrangement.

Biomass, a clean energy source, is a cheap and implementable option and can generate in a 24/7 mode. There is a huge, promising area to implement this at a very low cost. Hydrogen is also coming as a very useful source of clean energy.

All power-generating companies must think about increasing overall efficiency and plant load factor, along with optimal use of scarce resources.

All government, power-generating companies of India, and the entire ecosystem must collaborate, in line with SDG 17, in such a way that the goal of the country to generate 500 GW and 200GW of non-fossil energy can be achieved by 2030 and 2050, respectively, to ensure the net-zero goal of India by 2070. Although the interim goal of generating 500 GW is not a distant dream, as we have already achieved 218 GW, and another 150 GW are in the pipeline. But to ensure 2000 GW by 2050 is a tough target in terms of land for construction, transmission grid, and development of energy storage devices. To address land-related problems, solar is to be installed on every dam, upper and lower reservoirs of PSP, on the river, etc. To solve the storage problem, pending PSPs are to be constructed within the time without further delay.

A few respondents have installed a 3.6 KW solar rooftop panel with 25 25-year lifespan at Rs 2 Lac. They have to make another expenditure of around Rs 2.25 lac for the change of the inverter and battery within these 25 years. They have calculated NPV also as +ve, and the cost of power after 25 years will be Rs 85/- per month in NPV terms, which is now Rs 925/- per month. One such respondent also told that he is following the guidance of Mother Teresa, who said, “We ourselves feel that what we are doing is just a drop in the ocean. But the ocean would be less because of that missing drop”. He also says that he feels very happy and relaxed when he notices solar panels are supplying power in distributed mode in agriculture, small businesses, and public places.

As greenhouse gas is increasing, the world is getting hotter, and droughts, storms, and floods are now regular phenomena.

CONCLUSION

The adoption of conscious organizational practices and CGHRM in the Indian power sector is crucial for driving change management initiatives that contribute to sustainable development. The operational, economic, and sustainability dimensions are interconnected, and aligning HRM practices with these goals ensures that power companies can not only meet their immediate business objectives but also contribute positively to environmental stewardship and social welfare. By fostering a culture of responsibility, these companies can drive long- term success and play a pivotal role in India's sustainable energy future.

All power generation companies must remember that they have to promote all 3Ps – not only prosperity, but they also have to nurture people and planet, with due care for their holistic growth and long-term success.

Govt. of India (GOI) has to play a significant role in framing sustainable energy policies in this line for a cleaner and greener future. Although GOI has targeted two-third of resource towards a green recovery, including around USD 3 billion in battery and solar PV development, lowering emission by 33% to 35% below 2025 level by 2030 level, increase share of non-fossil fuel based energy source to 40% of installed power capacity by 2030 (with international support), and create an additional carbon sink of 2.5GtCO2e through additional forest cover by 2030, but at the same time, coal-based energy will be increased by about 266 GW as a part of coal-expansion plan – this will drive the change in negative direction, As a result of that, temperature is expected to increase by 2.7 degree centigrade by another 2 to 3 years. This will be a direct threat to our future generation as disease will increase and life expectancy will be greatly decreased. So, the central and all state governments. has to come together to make a policy for a truly pollution-free, green, clean, and sustainable India. Let us start the revolution from India with a vision to keep the temperature rise of the world within

0.5 to 0.7 degrees centigrade rise compared to the pre-industrial level temperature by the end of this century. If the Covid virus can show us the way, we, human beings, can positively do that if we commit from the core of our hearts.

The findings of the study are industry-specific, focusing on the Indian power generation sector, and may not be suitable for other industries. The research is qualitative in nature, and

as such, the results may not be generalized to all organizations in this sector, although the study provides deep insights into the issue of the power generation sector.

However, this topic is vast and multifaceted. The study can focus on sector-specific case studies to evaluate how different power generation companies are adopting these practices to measure effects on sustainability metrics. Research could also investigate how leadership styles that prioritize sustainability and ethical practices influence organizational culture, values, and employee engagement in the power sector. Researchers could also explore the correlation between long-term profitability and investment in sustainable technologies. Cross- sectoral comparisons could also offer insights into how the Indian power generation sector can learn from other industries or global leaders in

sustainable development, providing a roadmap for scaling these practices nationally and globally.

REFERENCES

- Autor, D. (2015). Why are there still so many jobs? The history and future of workplace automation. *Journal of Economic Perspectives, 29(3),* 3-30.
- Autor, D. (2019). Work of the past, work of the future. *AEA Papers and Proceedings, 109,* 1-32. https://doi.org/10.1257/pandp.20191110
- Aust, et al. (2019). Common good HRM: A paradigm shift in sustainable HRM? https://doi.org/10.1016/j.hrmr.2019.100705.
- Barrientos, S. (2020). Gender and work in global value chains: Capturing the gains? *Cambridge University Press.* https://doi.org/10.1177/102452942093 7992
- Bostrom, N. (2014). *Superintelligence: Paths, dangers, strategies.* Oxford University Press.
- Brennen, J., & Kreiss, D. (2016). Digitalization and AI in industrial growth. *Technology & Society, 10(2),* 25-40.
- Bridges, W. (2003). Managing Transitions: Making the Most of Change.
- Brynjolfsson, E., & McAfee, A. (2017). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies.* W. W. Norton & Company.
- Budd, J. W., &Zagelmeyer, S. (2020). Public policy and employment relations: The challenges of growing inequality. *Industrial Relations Journal, 51(5),* 400-417. https://doi.org/10.1093/oxfordhb/9780199207268.003.0020
- Cameron, E., & Green, M. (2004). Making Sense of Change Management.
- Chakraborty, S., & Banerjee, P. (2021). Labour market flexibility in India: Trends and policy challenges. *Economic and Political Weekly, 56(12),* 45-57.
- Chams, N., & García-Blandón, J. (2019). Human resource management and the 2030 agenda for sustainable development. *Corporate Social Responsibility and Environmental Management, 26(6),* 1457-1470.
- Collier, U. (2014). Hydropower and the environment: Towards better decision-making. Crane et al. (2016). *Business ethics.* Oxford Publication.
- Dessler, G., &Varkkey, B. (2023). *Human resource management.* Pearson India Education Services Pvt. Ltd
- Dyson, M., Berkamp, G., & Scanlon, J. (Eds.). (2003). *Flow – The essentials of environmental flows.* IUCN, Gland and Cambridge.
- Freeman, R. (2020). Labour economics in the age of AI and automation. *IZA Journal of Labor Policy, 9(3),* 67-89.
- Goertzel, B. (2014). *Artificial general intelligence: Concept, state of the art, and future prospects.* Springer.
- International Energy Agency. (2021). *India energy outlook 2021.* https://www.iea.org/reports/india-energy-outlook-2021
- International Labour Organization.

(2021). *World employment and social outlook: Trends 2021.*

- IEMR Research. (2010). *Human capital challenges in power sector.*
- Jarrahi, M. H. (2018). AI and the future of work: A hybrid intelligence perspective. *Business Horizons, 61(4),* 577-586.
- Johnson, S. (1998). Who Moved My Cheese?
- Khan, N., & Siddiqui, S. H. (2022). Catalytic effect of green human resource practices on sustainable development goals: The mediating role of green attitudes and green behaviors. *Sustainability, 14(21),* 14502.
- Kotter, J. (2006). Our Iceberg is Melting.
- Kumar, R., & Patel, N. (2019). Technological innovations in the energy sector: A labour market perspective. *Energy Policy, 132,* 745-757.
- Ledec, G., & Quintero, J. D. (2004). Good dams and bad dams: Environmental criteria for hydroelectric project site selection. Paper presented at the ICOLD Environmental Symposium, Seoul, June 2004.
- Ministry of Power, Government of India. (2020). *Annual report 2019-20.* https://powermin.gov.in/en/content/annual-reports
- NITI Aayog. (2021). *India's renewable energy roadmap 2030.* https://www.niti.gov.in/
- Nolan, J., & Bott, G. (2018). Corporate responsibility and labour rights in the global supply chain. *Business & Society Review, 123(4),* 505-531.
- Norton, T. A., Parker, S. L., Zacher, H., &Ashkanasy, N. M. (2015). Employee green behavior: A theoretical framework, multilevel review, and future research agenda. *Organization & Environment, 28(1),* 103-125.
- Pham, N. T., Tučková, Z., & Jabbour, C. J. C. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. *Tourism Management, 72,* 386-399
- PircherVerdorfer, A. (2016). The role of HRM in promoting ethical work practices: A common good perspective. *Journal of Business Ethics, 136(4),* 455-469.
- PircherVerdorfer, A. (2019). Common good HRM: A paradigm shift in sustainable HRM? *Human Resource Management Review, 29(4),* 100705.
- Postel, S., & Richter, B. (2003). *Rivers for life – Managing water for people and nature.* Island Press, Washington.
- Ren, S., Tang, G., & Jackson, S. E. (2018). Green human resource management research in emergence: A review and future directions. *Asia Pacific Journal of Management, 35(3),* 769- 803
- Renwick, D. W. S., Jabbour, C. J. C., Muller-Camen, M., Redman, T., & Wilkinson, A. (2016). Contemporary developments in green (environmental) HRM scholarship. *The International Journal of Human Resource Management, 27(2),* 1-16.
- Renwick, D. W. S., Redman, T., &

Maguire, S. (2013). Green HRM: A review and research agenda. Retrieved From: https://www.esgthereport.com/what-is-sdg-and-esg/

- Rodrik, D. (2018). *Straight talk on trade: Ideas for a sane world economy.* Princeton University Press.
- Roscoe, S., Subramanian, N., Jabbour, C. J. C., & Chong, T. (2019). Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development. *Business Strategy and the Environment, 28(5),* 737-749.
- Russell, S., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson.
- Sharma, R., & Gupta, P. (2020). Globalization and employment trends in India: A sectoral analysis. *Indian Journal of Labour Studies, 58(3),* 112-135.
- United Nations. (n.d.). *Goal 8: Decent work and economic growth.* https://sdgs.un.org/goals/goal8
- World Commission on Dams. (2000). *Dams and development: A new framework for decision-making.* www.dams.org
- World Economic Forum. (2020). *The future of jobs report 2020.*
- World Economic Forum. (2022). *The future of jobs report 2022.*