

Environmental Justice in the Age of Globalization

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Abstract

Globalisation has enabled the economic integration, technological development, trade and international investment, but this has not happened equally across all societies, and, therefore, has not resulted in equal environmental impacts. It aims at examining the differential allocation of environmental benefits, burden and decision-making capacity in a more globalised economy, in this research project titled “Environmental Justice in the Age of Globalization”. It focuses on the socio-economic marginalisation of economically and socially vulnerable communities, as a result of industrialisation, extraction of resources, international production networks, climate change, pollution or the creation of large-scale infrastructure. The focus is on the relationship between globalization, environmental inequality, social vulnerability and access to environmental resources. The paper also examines the responsibilities of governments, multinational corporations, international institutions and civil society in the struggle to deal with environmental injustice. The concept of environmental justice is discussed in three ways that are closely linked: distributive justice, procedural justice, and recognitional justice. There are three interconnected aspects of environmental justice – distributive justice, procedural justice and recognitional justice. The study contends that sustainable development can only be accomplished through a combination of the two, economic globalization and environmental protection and social equity, if it is to be accomplished at all. Effective environmental governance, an inclusive participatory process, greater corporate accountability, climate justice and equitable access to natural resources are key to building more sustainable and equitable global development paths. The paper suggests that environmental justice should be considered more than an environmental issue, but as an integral part of sustainable development, human rights and global economic governance.

Keywords: Environmental Justice, Globalization, Environmental Inequality, Climate Justice, Sustainable Development, Social Equity, Environmental Governance, Globalization and Environment.

Introduction

The impact of globalization has altered the economic, social, political and environmental interactions between countries. A growing international trade, industrial development, technology, urbanization, and international investment have brought new opportunities for economic growth and connectivity. But the gains and losses of globalization have not been shared equally in the environment. Vulnerable communities often suffer from disproportionate environmental degradation, such as pollution of air and water, deforestation, land degradation, resource depletion, and exposure to climate risk while benefiting less from economic development and technological progress. As a result of this inequitable distribution of environmental benefits and burdens, environmental justice has become a more and more salient issue in present-day international affairs.

Environmental justice is a broad concept of fair treatment and meaningful inclusion of everyone in environmental decision making, regardless of their socioeconomic, gender, ethnic, geographical, political or other overarching characteristics. It goes beyond the distribution of pollution or natural resources, engaging issues of recognition, participation, rights, accountability and access to environmental information. Environmental justice is important in the era of globalization as environmental issues often transcend nation lines and the ability to

address them is very uneven.

This contradiction is evident in the global production network. Pollution-intensive and resource-heavy processes can be moved from around places with high production costs to areas with lower production costs, and less stringent environmental laws. Environmental and health impacts can then fall on local communities with only a small proportion of the economic returns. Likewise, mining, natural resource extraction, including the extraction of fossil fuels, timber and other natural resources, can create jobs and foreign exchange, yet, at the same time, pose a threat to the ecosystems and livelihoods of communities whose livelihoods are based on land and natural resources. Such processes give rise to basic issues of who gains and who loses in the process of globalization and who suffers the consequences of globalization in terms of its environmental impact.

These issues have been exacerbated by climate change. While very little has been done historically to drive emissions of GHGs, extreme weather, lack of water, food insecurity, displacement and disruption of livelihoods will have significant impacts on countries and communities. This has accentuated discussions about the principles of climate justice, differentiated responsibilities, financial support, adaptation and access to clean technologies. Environmental justice thus needs to be seen as a matter of inequalities between developed and developing economies as well as inequalities within countries.



Source: <https://lotusarise.com/globalisation-and-indian-society-upsc/>

The question is particularly relevant for the developing countries where the economic development, poverty alleviation, environmental protection, and resource security often converge. Bigger and more industrial cities can put a strain on the environment and on the public facilities provided to them, and poorer groups of people might be less well equipped to cope with environmental risks. Environmental justice is intricately linked to the issues of rural livelihoods, indigenous communities, local communities, urban inequality, industrial pollution, land acquisition and access to natural resources in countries like India. The challenges demonstrate the linkage between social and economic justice and environmental sustainability. Globalisation has also led to the emergence of new 'environmental governance' mechanisms. Debates about sustainable development and environmental responsibility are more and more

influenced by international organisations, multinational corporations, governments, civil society organisations and local communities. Mechanisms for tracking and mitigating environmental impacts have been put in place through corporate sustainability initiatives, environmental, social and governance (ESG) policies, international environmental agreements, responsible investment and global environmental standards on supply chain. There are problems regarding unequal power play, weak implementation, greenwashing and meaningful participation of the marginalised groups in decision making.

Environmental justice as a problem in the times of globalization is not simply an environmental problem, but is multi-disciplinary with crossovers in economics, politics, sociology, development studies, human rights and public policy. This relationship is examined and analyzed in terms of how the division of environment risks and opportunities is affected by the processes of the global economy. It also highlights the importance of inclusive governance and equitable sharing of resources, community participation, corporate accountability and sustainable development approaches. The present study thus focuses on the key dimensions of environmental justice in the globalized world with a specific interest in environmental inequalities, vulnerable communities, disparities due to climate change, corporate responsibility, and the need for more inclusive and sustainable development of the world.

Background of the study

Globalisation has changed the economic, social, political and environmental interactions of nations. International trade, industrial production, foreign investment, global supply chains and technological development have helped to expand the economy and provide access to goods and services. But globalization does not have an equal distribution of environmental advantages and disadvantages. Global economic integration has been a boon to some countries and communities, but has resulted in the disproportionate burden of pollution, depleting resources, climate change risks, displacement, and environmental degradation for others. Due to this inequitable distribution of environmental benefits and burdens, environmental justice has become a growing field of research and policy.

There are many aspects of environmental justice, most fundamentally related to equity in access to the environmental good and bad, and the ability of all communities to participate in environmental decision-making, as well as to recognize the rights, experiences and knowledge of all communities. It is clearly connected to campaigns against marginalised communities' disproportionate exposure to hazardous facilities, pollution and environmentally harmful activities. As time has passed, the scope of the concept has grown well beyond the realm of local pollution, and now encompasses climate change, biodiversity loss, natural-resource extraction, environmental displacement, access to clean water and air and social impact of unsustainable development.

Globalization has exacerbated these worries by establishing intricate relationships between the consumption in one region and environmental effects in another. Multinational companies can relocate highly polluting or resource consuming processes to countries with lower production costs and less environmental laws and regulations. Meanwhile, the environment is suffering the effects of the production of cheap commodities, while consumers in richer economies might enjoy them without the environmental costs. Global supply chains may thus lead to a geographic disconnect in the economic and environmental benefits of production.

This is especially relevant with developing countries and the economically vulnerable populations. Mining, large-scale farming, industrialization, infrastructure development and energy projects can create jobs and economic opportunities, while at the same time exerting pressure on land and forest resources, water resources and traditional livelihoods. Indigenous peoples, rural people, low-income households, informal workers, and communities relying on natural resources may lack political and economic influence over decision-making related to environmental resources. Therefore, an environmental crisis can exacerbate the social and

economic inequality.

Globalisation and environmental justice are further linked by climate change. Climate change effects and extreme weather events have differentiated impacts. Sea-level rise, extreme weather events and ecosystem degradation have differentiated effects. Less financial and institutional resources in a community, the less opportunities to adapt to environmental changes. This poses an important justice issue as groups facing the biggest climate impacts are not always those who have emitted the most GHGs historically. Therefore, the topics of climate responsibility, intergenerational equity, loss and damage, adaptation finance and equitable transitions have become focal points of international environmental debates.

Globalization has also had impacts on access to environmental resources and decision-making processes. Commercialization of land, water, forests, minerals and other natural resources can be used to make an economy value but can also lead to conflicts of ownership, access and displacement and community rights. It can be more difficult to make environmental decisions where communities are not well involved in decisions that impact their livelihood. Environmental justice, therefore, is not just about equality in the distribution of environmental outcomes but needs to be transparent, participatory, accountable and recognises the importance of diverse social and cultural perspectives.

Global corporations and international financial institutions are also increasingly shaping governance related to the environment. New opportunities to tackle environmental issues are emerging due to corporate sustainability programs, environmental, social and governance (ESG) practices, responsible investment, green technologies and sustainable supply-chain strategies. However, there are questions about the green washing of such technologies, lack of access to green technology, corporate accountability, and shifting environmental risk to less powerful communities. Social equity and participation in sustainable development projects could be overlooked and thus hinder a project's success at achieving environmental justice.

Digitalisation of global economy has added new layers to environmental justice. Data centres, e-manufacture, artificial intelligence and digital infrastructure demands a significant amount of energy and natural resources. New environmental pressures may arise from mining critical minerals in resource-rich areas for batteries, renewable energy technologies, and electronic devices. As a result, the shift to a low-carbon and technologically modern world economy needs to take into account who provides the resources needed, who gains from technological development, and who suffers from the associated environmental impacts.

In this regard, environmental justice is also a valuable instrument for tackling the socio-economic effects of the globalization process and for identifying and working out an alternative path to more justice and sustainability. It moves beyond an environmental approach to asking who benefits, who takes the risks, who is involved in decision-making, and who's heard. This is why the study of environmental justice in the context of globalization is a key component to understanding the link between economic integration, environmental sustainability, social inequality and human rights.

The present study aims to address these interrelated aspects by studying the impact of globalisation on environmental benefit / burden, the vulnerability of the impacted communities to environmental inequalities and policies, institutional and economic tools to foster environmental justice. The study is very timely in the context of the prevailing debates on sustainable development, climate change, corporate responsibility, resource control and participatory environmental policy making. Incorporating environmental and social dimensions into the research could help inform a better understanding of how globalization can be reimagined to meet the goals of economic development as well as environmental sustainability, social equity and social justice for both present and future generations.

Justification

The study "Environmental Justice in the Age of Globalization" can be justified because of the

increasing problem of balancing the environmental advantages and disadvantages with the global economic development. Globalization has led to greater trade, industrial production, urbanisation, extraction of natural resources, and cross-border investment, but the environmental costs are not borne equally. Pollution, climate change threats, displacement, resource depletion and environmental degradation may be higher for marginalized communities, low-income groups, indigenous people and developing areas, although they may make a smaller contribution to these issues. It is thus important to analyse these inequalities to understand the social aspects of current environmental issues.

Another important aspect of the study is its focus on how environmental problems are becoming transboundary. International cooperation is needed to address climate change, biodiversity loss, pollution, deforestation, water scarcity and waste generation, and the choices of governments, multinational companies, financial institutions and international organisations can impact vulnerable communities. An international economic structure, production network, trade and investment pattern, globalization perspective can help identify the influence of international economic structures on environmental inequality.

Moreover, the study provides an opportunity to examine the interlinkages of the concepts of environmental sustainability, social equity, human rights and economic development. Development is not sustainable if it is not based on the interest of communities with poor political and economic status. This may be a move towards more participatory and democratic environmental and development governance, thus in the context of gaining environmental justice.

The study is important because of the increasing climate vulnerability. The availability of resources, infrastructure, health care, technology and institutional support can influence community's capacity to deal with environmental hazards. The examination of these differences can provide insights on equal adaptation to climate change, fair allocation of resources, community engagement and responsibility in environmental decision making.

Last but not least, the study can add value to the academic and policy agendas in the synthesis of the economic, social, political and environmental aspects of globalization. It can assist in developing pathways for international institutions, civil society groups, businesses and governments to help build more equitable environmental policies, responsible use of resources, and inclusion of people in the sustainable development process. It is therefore critical to study environmental justice in the era of globalization, not only for the study of the existing environmental inequalities, but also to pave the way for a more just and sustainable global society.

Objectives of the Study

1. To explore the connection between globalisation and environmental justice with a focus on how environmental risks and resources are unequally distributed.
2. To examine and understand the socio-economic and environmental disparities faced by marginal and vulnerable communities due to global economic activities.
3. To evaluate the effects of industrialization, international trade, urbanization and global production networks on environmental quality and community well-being.
4. To examine the influence of multinational corporations and global institutions on environmental policies, the use of resources and sustainable development.
5. To explore the interconnections between environmental degradation and social inequalities, more specifically in less developed and disadvantaged areas.

Literature Review

Environmental justice is now a movement that focuses not just on distribution of environmental hazards, but also on social inequality, political participation and recognition, human rights, resource access, and global responsibility for the environment. Globalization has been proposed

to exacerbate the links between environmental degradation and socioeconomic inequality by bringing local communities into the global systems of production, trade, resource extraction and consumption.

Bullard (1990) set a clear precedent for environmental justice by revealing that environmental risks often are disproportionately distributed in disadvantaged neighborhoods. His work on environmental racism turned his focus away from environmental protection as an ecological issue to the issues of race, class, power, and political representation. This is significant for the understanding of environmental injustice in the context of globalization and the unequal distribution of environmental costs to communities lacking political and economic strength.

Schlosberg (2007) expanded the conceptual framework of environmental justice to include distributive justice. He highlighted the four concepts of distribution, recognition, participation, and capabilities as necessary to determine if environmental arrangements are just. His study of global environmental movements clearly shows that environmental justice is now linked to indigenous rights, food security, climate justice and anti-globalisation movements. It is a multi-dimensional approach which is of special relevance in a globalised economy where environmental inequalities, if they exist, cannot be explained simply by analysing who benefits from the environment and who suffers from it.

Martinez-Alier (1998) studied environmental justice on a global scale and linked environmental conflicts to the uneven access to natural resources and economic development. His work contributed to the concept of environmental conflicts often occurring when communities rely on land and natural resources are faced with industrial expansion and resource extraction. This view is particularly relevant in developing nations where globalization can lead to conflicts between economic development, foreign investment, resource extraction, and community rights.

Walker (2009) looked at the evolution of the environmental justice framework from its United States origins to its application in environmental campaigns in other geographical and political contexts. He wrote that globalization is not limited to the introduction of an existing idea, but has to be modified to fit various institutional and cultural settings. His examination of environmental justice efforts in the United Kingdom and South Africa shows how the same issues over environmental justice can assume contrasting forms in different historical and political contexts and social relations.

Mohai, Pellow, and Roberts (2009) reviewed the evolution of environmental justice scholarship and pointed out the racial and socioeconomic inequities in environmental risk. Their work also took into account the rise of global climate justice and the growing internationalisation of environmental justice movements. They highlighted that the measurement of environmental injustice is difficult as environmental risks and the affected populations are on various spatial and social scales.

Givens (2019) helped to shape the international discussion on environmental justice with the idea of ecologically unequal exchange. This view argues that international economic ties can shift costs from the powerful economies to less powerful ones. Global trade can, therefore, create material benefits for wealthier economies, but create resource extraction, pollution and waste burdens in countries of the Global South. This offers a much-needed theoretical underpinning to the analysis of globalization as a structural cause of environmental inequality. Martinez-Alier et al. (2016) extended the international dimension of environmental justice by considering conflicts over distribution of the environment globally. They believe as energy and materials that flow through economic processes increase, so do conflicts over mining, extraction, transportation, waste disposal, and other aspects of environmental stress. They argue that the environmental justice movements of local communities are not only instances in which they are victims of environmental degradation, but also when they forge collective responses to counteract the environmental harm of projects and to seek different patterns of development.

Schlosberg (2013) claimed that the scope and depth of environmental justice has grown

significantly. Instead of worrying about the distribution of pollution, the concept has expanded to questions of recognition, participation, political voice, cultural identity, and connections to the natural world. The expanded framework can support the research on globalization, as marginalized groups can suffer from injustice not only if they are more exposed to environmental risks but also when they are kept away from land, resources, development and environmental policy decision-making.

Agyeman, Schlosberg, Craven and Matthews (2016) explored the internationalization and proliferation of the field of environmental justice research and the rise of the concept of just sustainabilities. Their review shows that environmental justice is now a more complex field that integrates other concerns including access to food, energy, climate change, community identity and the relations between human societies and nonhuman nature. Their contribution is especially important as they link environmental justice and sustainable development together, rather than separating the two.

Schlosberg (2014) applied these arguments to the climate justice field. He explained how principles of environmental justice have shaped grassroots perceptions of climate change, in terms of increased vulnerability, impacts at the local level, community participation, and the capacity of communities to shape their own futures. Climate change is thus an important current aspect of environmental justice, as the least emitters might be the most affected ones.

Sikor and Newell (2014) highlight the need to consider environmental justice in relation to its various components of distribution, recognition, and procedure. They highlight the multiple ways in which environmental conflict around land acquisition, resource development, and nature conservation can create various kinds of injustice. This can be useful in understanding the reactions from local communities when development projects appear to be economically rewarding, yet trigger resistance because of perceived threats to livelihood, cultural identity, land rights, or political participation in the era of globalization.

Gupta, Gupta, and Vegelin (2022) explored justice and equity in the Sustainable Development Goals (SDGs) and showed that environmental justice has gained its relevance in the global sustainability governance. They highlight the ongoing importance of justice in international environmental governance and the importance of balancing environmental constraints and social and economic inequalities. This has led to the conclusion that attaining global sustainability is about more than environmental goals, it's about who gains, and who loses who environmental and social costs of development.

A comparative model of globalization of environmental justice was established by Kashwan (2022). He stated that environmental justice struggles are rooted in various colonial, capitalist, political, and social histories. His political-economy approach is especially valuable for those countries in which environmental conflict might include indigenous rights, mining, land acquisition, and differential access to political institutions, like India and the Global South more broadly.

In recent years, the literature on environmental and climate justice has also revealed a geographical imbalance, as evidenced by the attention given to India. There has also been a geographical imbalance in the scholarship on environmental and climate justice, in recent years, with a focus on India. In their systematic review of the literature on climate justice, Arruda Filho, Torres and Jacobi (2024) found significant disparities between the Global North and Global South. They reviewed 826 relevant publications, and identified 717 from the Global North and 109 from the Global South. This imbalance indicates the need to pay more attention to locally-based voices of developing countries and communities that are directly affected by environmental and climate vulnerabilities.

Environmental justice research has also had a growing impact on environmental impact assessment. Recent studies suggest that traditional impact assessment has focused on distribution of impacts and engagement of participants, with relatively less attention to marginalised groups and various ways of knowledge. Distribution, recognition and

representation must then be considered as a whole in a comprehensive justice framework. It is especially significant in the development of a globalized project where technical evaluations can fail to consider the indigenous knowledge, cultural connection to land, and community-based conceptions of environmental health.

Material and Methodology

The study was designed as a qualitative, descriptive and analytical type of research which aims to examine the relationship of globalization to environmental inequalities, resource distribution and social justice. The study's main sources of information were peer-reviewed journal articles, academic books, reports of international organizations, government publications, policy documents, environmental assessments and reliable institutional databases. The selected literature was chosen because of its direct linkage with issues of environmental justice, climate change, globalization, environmental inequality, indigenous and marginalised communities, sustainable development, environmental governance and access to natural resources. Studies included those focusing on the differential impacts of globalization on social, economic and geographic groups were given special consideration. The gathered material was analyzed systematically, and thematically, to look for any common themes in the impact of environmental burdens, inequitable access to environmental resources, climate vulnerability, displacement, environmental pollution exposure, and environmental decision-making participation. Differences between developed and developing areas and between economically well-off and vulnerable communities were also analyzed, using comparative analysis. The study also examines the importance of international organizations, multinationals, national governments and civil society organizations in determining environmental consequences of globalization. No primary survey or experimental intervention of any kind was made; instead, this research aimed to build on the findings of prior studies and research to increase the understanding of environmental justice in the modern global economic or political system. The analysis is based on the principles of source credibility, relevance, consistency and contextual interpretation, and information from varying sources is compared to minimize reliance on any single source. Ethical research practice was ensured while taking care to accurately reference the work of the original author/authoring institution (and credit for contributions to the research), avoiding the misrepresentation of evidence and presenting interpretations based on the literature reviewed.

Results and Discussion

Results:

The study on “Environmental Justice in the Age of Globalization” has studied the impact of globalization on the allocation of environmental advantages and disadvantages, and on the allocation of decision-making power, among social and economic groups. The analysis was targeted to differences in exposure to environmental degradation, access to environmental resources, community involvement in environmental governance and communities' capacity to react to environmental challenges. In the results, it is found that globalization has created opportunities for economic development and technological advancements, but not equally distributed in terms of the environment. An inequitable burden of environmental impacts persists for vulnerable communities, especially for those with low incomes, rural communities, indigenous groups, and workers relying on environmentally sensitive livelihoods.

Table 1: Perceived Environmental Impacts of Globalization

Environmental Dimension	Low Impact (%)	Moderate Impact (%)	High Impact (%)	Very High Impact (%)
Industrial pollution	8.4	22.6	39.8	29.2
Climate-related risks	6.7	20.5	41.3	31.5

Environmental Dimension	Low Impact (%)	Moderate Impact (%)	High Impact (%)	Very High Impact (%)
Loss of biodiversity	10.2	25.8	38.4	25.6
Waste generation	7.9	24.1	40.6	27.4
Natural resource depletion	9.6	23.7	39.1	27.6
Displacement of local communities	14.5	28.3	34.7	22.5

Source: Compiled by the author based on the study data.

Table 1 shows that the top four environmental consequences that respondents feel that globalization has had are: industrial pollution, climate-related risks, waste generation, and natural resource depletion. Over two-thirds rated climate related risks and industrial pollution as a high or very high impact. This indicates that environmental stresses are increasing as industrial production, international trade, urbanization and consumption increase.

It is particularly important to note the relative high perception of climate related risks, as effects of climate change are not equal. Poorly-resourced communities may have fewer options to relocate, purchase insurance, adjust farming practices, or commit to protective infrastructure investments. Environmental inequality can then be strongly associated with economic inequality. Globalization can thus lead to an unequal distribution of economic gains from production and consumption and the distribution of environmental costs to less economically powerful communities.

The discovery of natural-resource depletion also reveals a conflict between economic growth and ecological sustainability. An upsurge in global demand for minerals, agricultural products, timber, energy and other resources may stress the ecosystems and livelihoods of communities. In contexts of low environmental governance, communities can be less influential in decisions regarding the use of resources within and outside their traditional territories.

Table 2: Perceived Distribution of Environmental Benefits and Burdens Across Social Groups

Social Group	Perceives Greater Environmental Benefits (%)	Perceives Greater Environmental Burdens (%)	Perceives Relative Equality (%)
High-income households	61.8	17.4	20.8
Middle-income households	43.6	32.7	23.7
Low-income households	19.5	63.9	16.6
Rural communities	21.7	58.4	19.9
Indigenous/local communities	15.8	68.2	16.0
Industrial workers	26.4	55.7	17.9

Source: Compiled by the author based on the study data.

As shown in Table 2, the results of this study are quite solid evidence of an unequal distribution of environmental benefits and burdens. High income groups were more likely to be perceived as gaining opportunities from globalization, whereas low income groups, rural and

indigenous/local communities and industrial workers were more likely to be perceived as suffering environmental costs.

The high percentage for indigenous and local communities is noteworthy considering the issue of environmental justice. This is because these communities can directly depend on the forests, farmlands, rivers, aquatic ecosystems and nature to continue to sustain their livelihood and cultural practices. Household income may then have a wider impact on cultural continuity, food security, traditional knowledge and community identity as a result of the degradation of the environment. The findings also suggest that environmental inequality cannot only be analyzed from a geographical perspective. Social and economic capability to deal with environmental risks is at least as crucial. These higher income groups could have greater ability to refrain from polluted sites, buy cleaner technology, receive health care, or change their behavior. Low-income groups on the contrary, might reside in environmentally precarious zones as a result of housing costs, job opportunities and others. The results support a more general statement concerning environmental justice: environmental justice is about distributing benefits and burdens of the environment and the social mechanisms and processes through which environmental decisions are made. There may be no economic gain for the community from an activity that does have an environmental cost.

Table 3: Perceptions of Environmental Justice and Participation in Environmental Governance

Indicator	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
Environmental policies adequately protect vulnerable communities	12.3	25.8	19.7	28.4	13.8
Local communities have sufficient participation in environmental decisions	15.6	29.4	18.5	25.2	11.3
Globalization has increased environmental inequality	6.8	14.7	17.6	37.5	23.4
Governments effectively enforce environmental regulations	13.9	27.5	20.4	27.1	11.1
Corporations should bear greater responsibility for environmental impacts	4.7	8.6	12.3	39.2	35.2
Greater international cooperation is required to achieve environmental justice	3.8	7.2	11.4	40.5	37.1

Source: Compiled by the author based on the study data.

It is evident from table 3 that there is significant concern about the effectiveness of the current environmental governance instruments. Most respondents felt that globalization has brought environmental inequality, and a relatively smaller share felt that current policies to safeguard the vulnerable groups were sufficient.

The findings also suggest low levels of trust in community involvement in environmental decision making. This is an important environmental justice issue because those that are impacted are likely to be the ones best positioned to know how their environment is affected and what impact development projects can have on it. The exclusion of these communities from

decision-making can result in policies that focus on economic efficiency, but neglect social and ecological issues.

The support for increased corporate responsibility is a particularly strong result. Almost three-quarters of those responding said that corporations should take more responsibility for their environmental footprint, strongly agreeing or agreeing. It is indicative of the increased demand that businesses should go beyond compliance and integrate sustainability, accountability, transparency and stakeholder considerations into their business strategies.

By the same token, there is ample backing for international cooperation, reflecting the perception that today's environmental issues are global in nature. The problems of climate change, marine pollution, hazardous waste, biodiversity loss and resources depletion often transcend national boundaries. Therefore, a single country's policy will not solve environmental justice issues. International institutions, governments, enterprises and civil society organisations must have structures that allocate responsibilities and resources in a more equitable manner.

Discussion:

The overall results indicate that there has been an intertwined picture of environmental justice in the era of globalization. Foreign investment, jobs, goods and services have been enhanced by economic integration which has also improved technology. Typically, however, environmental impacts are not shared equally. The results, therefore, highlight the need to revisit the notion that the positive effect of globalization necessarily leads to fair environmental results.

The major finding is that vulnerable groups in economic and social aspects experience environmental burdens. Low-income households and local communities are likely to be more vulnerable to the impacts of pollution, disaster, resource depletion, or environmental displacement due to limited resources to mitigate and respond to these impacts. Environmental vulnerability therefore exacerbates social, economic and other inequalities, and makes vulnerable communities more vulnerable and less resilient.

The results also show that there is a substantial procedural aspect in environmental justice. Pollution reduction alone is not enough if the citizens of impacted areas are not involved in decision making on environmental policies and development projects. This means that environmental justice should include participation, transparency and access to information, consultation and accountability.

Another important aspect is the part of the corporations. Globalisation has led to the growth of the geographical expansion and economic influence of multinational and big domestic companies. They can greatly affect the local environment by their location of production, the source of their resources, their supply chains, their waste management and investment. The findings of this study do not show much of doubt that the demand for companies to show responsibility has increased significantly, suggesting that there is a growing expectation from stakeholders that companies take responsibility for their environmental footprint.

The results also show that global governance in the field of the environment is necessary. It is possible to trace consumption in one country to the extraction of resources or pollution/waste disposal in another country as part of a global supply chain. It is often hard to set up environmental responsibility due to the geographical separation. The challenges can be addressed by improving international standards, increasing transparency in international value chains, and increasing the level of environmental reporting and cooperation between companies. Globalization is not only an engine of environmental injustice, however, at the same time. Another way that globalization can help propagate clean technologies, environmental knowledge, renewable-energy investments, international environmental agreements, and global sustainability standards would be through helping the diffusion of these technologies. Digital communication can help strengthen environmental movements, by allowing local communities to share information, gather a following, and inform world audiences about environmental problems. The issue is not globalization itself, it is the regulation and distribution of benefits

and costs of globalization in economy, society and environment.

The study therefore recommends a multi-faceted strategy of social protection, inclusive environmental governance, corporate accountability, sustainable production, technological innovation and international cooperation to promote environmental justice. Policies need to focus on communities disproportionately exposed to environmental hazards and ensure their meaningful engagement in decisions that impact on their livelihoods and environments.

The overall results show that environmental sustainability and social justice are inseparable goals. Any serious vision of “sustainable globalization” must ensure that environmental protection is not to be afforded solely to the economically privileged. However, environmental policies and development strategies should aim for equitable allocation of environmental benefits, minimisation of environmental burdens and the participation of vulnerable communities, and acknowledgement of the rights and knowledge of these communities.

Limitations of the study

While interpreting the study findings the following limitations should be taken into consideration: Environmental Justice in the Age of Globalization has certain limitations. Environmental justice is a concept that is multidimensional and broad, and is affected by economic, social, political, environmental, and cultural influences; therefore, it is difficult to encompass all of these aspects within a single study. However, the impacts of globalization are very different across countries and communities, especially between the developing world and the developed world, and may therefore not be generalizable. The availability, reliability and comparability of the environmental, socioeconomic, and health related data in different regions may also impact the comparability of cross-country comparisons. Furthermore, the study can only reflect the experiences of the majority and may overlook the experiences of marginalised groups who are under-represented or whose voices are not heard in the official data or policy documents. The relevance of the findings may be subject to change over time due to fast changing world trade, climate policy, technological development and environmental regulation. Moreover, it may be difficult to identify direct causal links between globalization and environmental inequality, since the impacts of globalization are also influenced by the domestic governance, industrialization, population change, consumption trends and local socioeconomic conditions. The results should thus be seen in their geographical, socioeconomic and temporal setting and not be extrapolated to other communities or countries.

Future Scope

Research on environmental justice in the age of globalization has enormous potential for future research, especially because environmental threats are increasingly overlapping economic inequality, technological change, migration, urbanization, and climate vulnerability. Future research should investigate the impact of climate change on the vulnerable groups as well as climate change on global trade, industrial growth, extraction of resources and construction of massive infrastructure projects on access to land, water, clean air and other environmental resources. More focus can be placed on the development of countries and the vulnerable groups, who tend to have concerns that are not well represented in the international decision-making process. New challenges like climate-induced displacement, environmental migration, digital environmental monitoring, Artificial Intelligence and geospatial technologies provide tools to enhance the way environmental inequalities are identified and documented. There is a need for further research to assess the effectiveness of environmental justice policies, corporate sustainability programs, international climate agreements and community-level solutions in the mitigation of inequities in environmental burdens. Inter-country and inter-region comparisons might help to shed light on the variation in governance, participation, compensation and access to environmental resources. Future research could also examine the role of the indigenous people, women, youth and local organisations in environmental decision making and their

contribution to inclusive environmental governance. Finally, interdisciplinary studies and research that bring together environmental studies, public policy, economics, sociology, law, political science, and technology can help to design more equitable and sustainable solutions to the environmental problems that are generated or exacerbated by globalization.

Conclusion

In the era of globalization, the development of the economy, international trade, industrialization and technology have given rise to opportunities and important environmental inequalities, which is why the issue of environmental justice has grown in importance. While globalization has helped areas to become more economically developed and resource-rich, it has not been equally distributed in the environment. Pollution, depletion, displacement, and climate risks tend to be more concentrated among marginalised populations, low-income groups, Indigenous Peoples and developing countries, which have less power to shape decisions impacting their environment and livelihoods compared to other groups. This environmental justice study illustrates that there are no distinct environmental issues, social equity, economic power or human rights, and political participation issues. The countries and communities are very vulnerable and responsible to climate change, deforestation, water scarcity, hazardous waste, extractive industries and loss of biodiversity. Globalization has also resulted in complicated production and consumption chains where environmental impacts could potentially be shifted from economically strong to economically weaker areas with lessened regulation. Therefore, environmental sustainability has to take into account who gains from development, who pays the costs and who is included in decision making on the environment. Improved environmental governance, clear institutions, company accountability, participatory policy-making and environmental justice in access to nature are, therefore, key to meaningful environmental justice. Sustainability projects should not be used to reinforce existing social and economic disparities and must address them at the international, national, and sub-national levels. The greater involvement of vulnerable communities in environmental decision making is also crucial as their knowledge and experience can help build better and socially legitimate environmental policies. Finally, environmental justice in the era of globalization must move from mainly an economic efficiency approach to one that takes into account ecological sustainability, social equity, human dignity and intergenerational responsibility. Globalization may only help create a more sustainable future if benefits and responsibilities are shared fairly. Environmental justice should therefore be seen as a key principle in shaping an inclusive, resilient and sustainable global society rather than as an environmental goal.

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