



The Indian Diaspora and Climate Change: Opportunities and Challenges

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Abstract: *Having more than thirty million people of Indian origin living outside of India, the Indian diaspora is one of the largest in the world. With climate change posing significant threats to countries worldwide, including India, the Indian diaspora has the potential to play a critical role in climate change mitigation and adaptation efforts. This research article investigates the opportunities and challenges for the Indian diaspora to participate in climate change mitigation and adaptation efforts. The study provides an overview of the effects of climate change on India, including rising temperatures, shifting precipitation patterns, and an increase in the frequency and severity of extreme weather events. These effects are expected to have significant social, economic, and environmental repercussions for India and its people, particularly vulnerable groups that include farmers, coastal communities, indigenous peoples, and households with low income. The study takes into account the potential contributions of the Indian diaspora to efforts to mitigate and adapt to climate change. financial investments in projects involving clean energy and climate resilience, knowledge and technology transfer, advocacy, and regional community awareness-raising and capacity-building. The research also looks into challenges to engaging the Indian diaspora in climate change efforts including cultural differences in norms and values, changing awareness and understanding of climate change, and limited participation opportunities in their host countries.*

Furthermore, the study suggests comprising the Indian diaspora in climate change efforts, such as developing targeted outreach strategies and partnerships, promoting cultural exchange and dialogue, providing education and training opportunities, and leveraging existing social networks and organizations.

Key Words: Indian diaspora, Climate change, clean energy, Vulnerable groups.

1. INTRODUCTION:

Indian diaspora refers to the global spread of people of Indian origin who have settled in different parts of the world. This diaspora is one of the largest and most widespread and contributes significantly to the cultural, economic, and social diversity of many countries. The Diaspora is made up of Non-Resident Indians (NRIs), Persons of Indian Origin (PIOs), and Overseas Citizens of India (OCIs).

- **Non-Resident Indians (NRIs):** NRIs are Indian nationals who are still citizens of India but spend more than 180 days out of the country each year. These individuals have retained their passports and are still considered Indian citizens. Individuals who spend 180 days or more outside the country in a year are not taxed under Income Tax laws.
- **Persons of Indian Origin (PIOs):** A PIO is a foreign citizen (other than a national of Pakistan, Afghanistan, Bangladesh, China, Iran, Bhutan, Sri Lanka, or Nepal) who: held an Indian passport at any time, or who or either of their parents/grandparents/great grandparents was born and permanently resided in India as defined in the Government of India Act, 1935, or who is the spouse of an Indian citizen or a PIO. In 2015, the PIO category was merged with the OCI category.

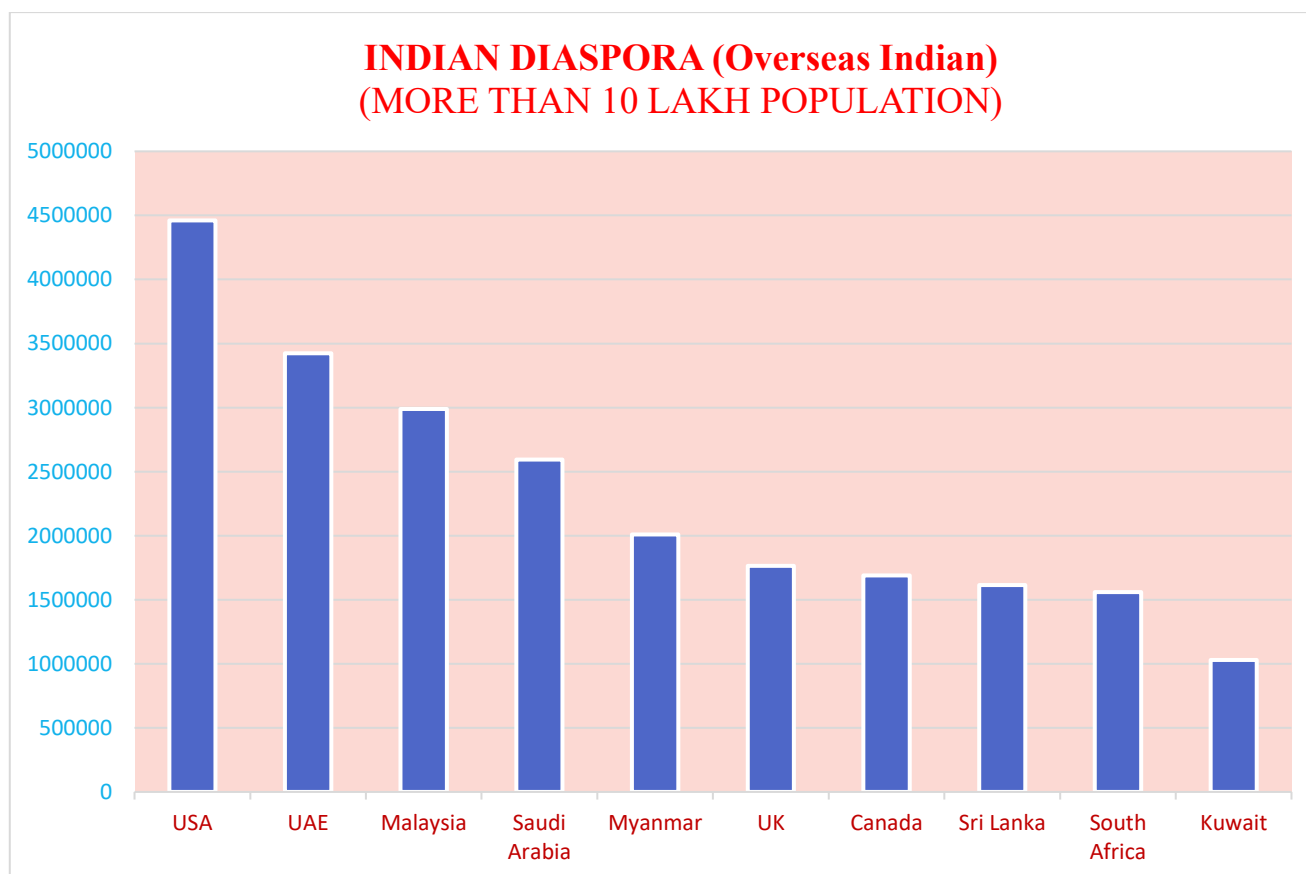


- **Overseas Citizens of India (OCI):** In 2005, a new category of OCI was created. Persons who have renounced Indian citizenship and taken citizenship of another country are called Overseas Citizens of India. The OCI card was issued to all Indians who was a citizen of India on or after January 26, 1950 or belonged to a territory that became part of India after August 15, 1947, and minor children of such persons were also given OCI cards except citizens of Pakistan or Bangladesh. The OCI card, issued by all Indian diplomatic posts around the world, allows unlimited visa-free travel to India as per the 2015 amendment. They can visit India as many times as they want and stay visa-free for as long as they want.

2 GEOGRAPHICAL DISTRIBUTIONS OF INDIAN DIASPORA:

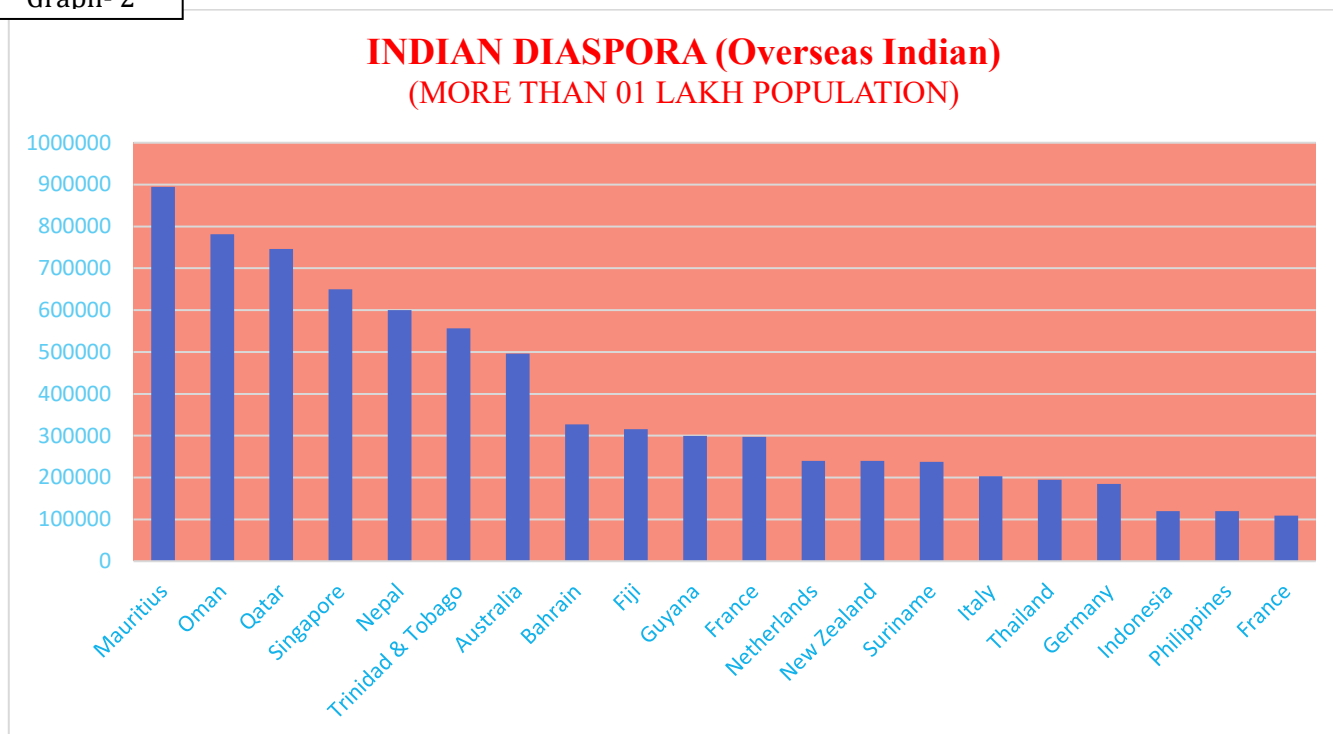
According to the data of the Ministry of External Affairs Government of India's Overseas Indian, the total Indian diaspora is spread across 207 countries with a population of 3,22,85, 425, of which 10 countries (total 2,31,34, 164 population) namely USA, UAE, Malaysia, Saudi Arabia, Myanmar, United Kingdom, Canada, Sri Lanka, South Africa and Kuwait respectively have a population of more than 1 million (Graph-01).

Graph -1



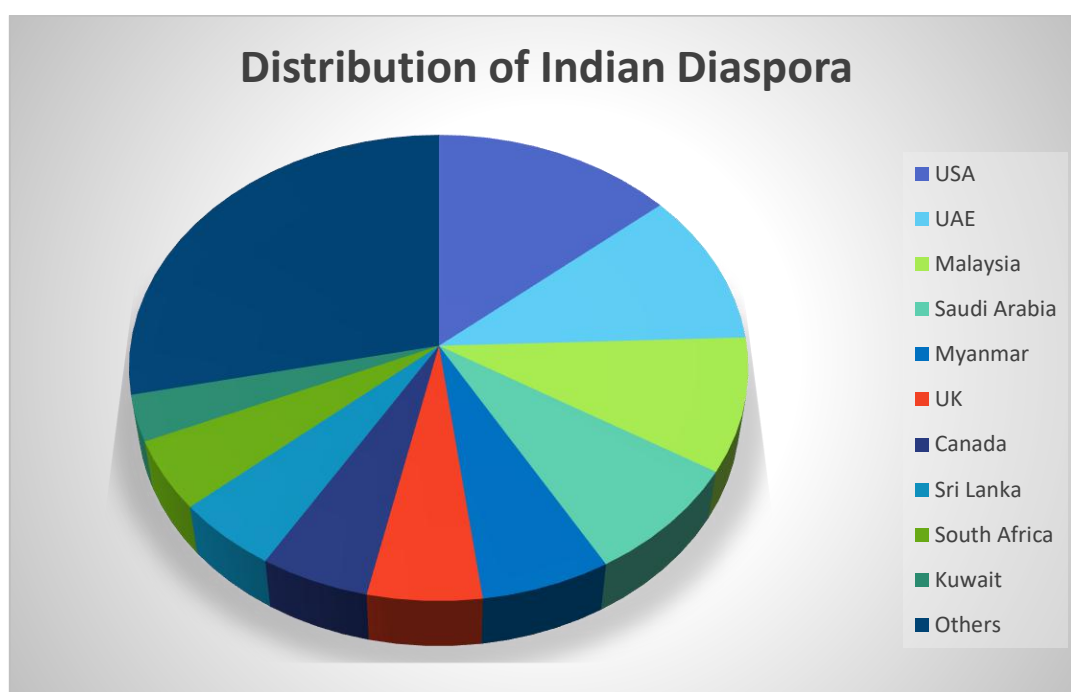
The population of the Indian diaspora is 76,12,871 distributed across 20 countries with populations ranging from 1 to 1 million (Graph-02), including Mauritius, Oman, Qatar, Singapore, Nepal, Trinidad & Tobago, and Australia.

Graph- 2



In addition, there are 177 countries with a population of 15,35,690 with a distribution level of less than 1 lakh. Thus, 71.66 per cent of the Indian diaspora resides in just 10 countries of the world and only 28.34 per cent in the remaining 197 countries, reflecting the trend of destinations for migration of Indians (Graph-03).

Graph- 3



Source: <https://www.mea.gov.in/population-of-overseas-indians.htm>



4. OVERVIEWS OF THE IMPACTS OF CLIMATE CHANGE ON INDIA.

Climate change has significant implications for India, especially for the poorest people. Heat waves that reduce harvests, heavy rains that cause flooding, and susceptibility to sea level rise are all examples of extreme climate impacts. India is vulnerable to sea level rise because up to 310 million people live in its coastal areas. Climate change will seriously affect India, especially the poorest population. Climate extremes include heat waves that damage crops, heavy rains that cause flooding, and susceptibility to sea level rise. India is vulnerable to sea level rise because up to 310 million people live in low-lying coastal areas. Climate change is also expected to have significant impacts on health, increasing malnutrition techniques and more efficient agricultural water management. India is already suffering from various impacts such as rising temperatures, changing rainfall, rising sea levels and increased frequency and intensity of extreme events. Rising temperatures have reduced harvests and increased heat-related illnesses. Precipitation patterns are also changing, increasing the average amount of monsoon rainfall and the frequency of extreme rainfall events. Climate change will also increase localized hefty rainfall that can cause flooding and other weather-related disasters. The sea level on the Indian coast is rising faster than the global average. NASA used the Intergovernmental Panel on Climate Change (IPCC) Projections to create a visualization tool to help coastal regions prepare and plan for sea level rise. By 2050, Mumbai and 039 are projected to rise by 0.12 meters compared to 0.4 meters in 2020, Hiron Point in the Sundarbans by 0.17 meters, Chennai by 0.10 meters and Cochin is likely to rise. an increase of 0.15 million compared to 0.4 million in 2020.

5. POTENTIAL CONTRIBUTION OF THE INDIAN DIASPORA TO CLIMATE CHANGE AND ADAPTATION EFFORTS

The Indian diaspora, which has a large and diverse population outside India, is significant potential to contribute to climate change mitigation and adaptation efforts both in India and within India worldwide. Mitigation measures focus on reducing the effects of human-induced climate change adaptation measures and aim to reduce the vulnerability of communities to climate hazards. In India, there is a growing awareness of the need to simultaneously address mitigation and adaptation efforts (Hari et al., 2021). Indian cities have enormous potential for change adaptation, such as strategies for immigrant communities that lack the resources to plan adaptation measures. The Indian diaspora can also play a role in mitigating climate change by helping to reduce it emissions of carbon dioxide. This could be done through energy conservation and renewable energy initiatives and other green initiatives projects. In addition, they can help raise awareness of its impact on climate change and encourage people to act against it (Dubash et al., 2018). In addition to Indian the diaspora can contribute to climate change adaptation by helping vulnerable populations prepare for it extreme weather events and other effects of climate change. This may include providing access to resources such as food, water, shelter, health, and education. They can also help increase flexibility in communities, supporting local initiatives that promote sustainability and environmental protection (Patrao, 2016). Possible contributions from the Indian diaspora include financial investment in pure energy and climate sustainability projects, knowledge and technology transfer, impact and awareness raising, and capacity building of local communities. One notable area where the Indian diaspora Climate change can be promoted by investing in clean energy projects. The Indian government has set a target of 500 gigawatts of renewable energy by 2030 and the diaspora can help achieve this goal by investing in renewable energy projects such as solar, wind and hydropower (India's Clean Energy Transition Is Rapidly Underway, Benefiting the Entire World – Analysis, 2022). The Indian diaspora can also invest in energy efficiency technology and infrastructure that can reduce and mitigate the greenhouse gases effects of climate change. Another area where the Indian diaspora can contribute to climate change mitigation is through transfer of knowledge and technology. Many members of the Indian diaspora have industrial expertise such as design, science, and technology that can be used in the development and implementation of innovative solutions to curb climate change. Diaspora can share information and best practices with organizations and communities in India to promote and reduce sustainability emissions of greenhouse gases. Apart from mitigation measures, the Indian diaspora can also contribute to climate change adaptation efforts. For example, the diaspora can invest in climate change resilience projects such as water nature conservation, flood control, and disaster preparedness. The diaspora can also support capacity-building local communities, especially in sensitive areas such as coastal and drought areas regions providing education and training on climate change resilience. The Indian diaspora can also play an important role in influencing and raising awareness in relation to climate change. Diaspora is an important position in many countries of the world and can use their networks and influence to raise awareness of the effects of climate change and favor political solutions to solve the problem. The diaspora can also engage with policymakers and stakeholders to promote sustainable practices and encourage investment in clean energy and climate sustainability projects.



6. CHALLENGES OF ENGAGING THE INDIAN DIASPORA IN CLIMATE CHANGE ACTION.

Engaging the Indian diaspora in climate change efforts presents several challenges. India is one of the most vulnerable countries in the world to climate change, and its population is already experiencing climate change and climate impacts. Low-income populations are particularly sensitive to these effects, which makes it difficult to promote sustainable development roads that are resistant to climate change (Communicating Climate Change Findings from IPCC Reports: Insights from Outreach Events in India | Springer Link 2021). Despite the potential of the Indian diaspora to contribute to climate change mitigation and adaptation efforts, a number of challenges must be addressed to effectively engage them.

Some challenges are

- i) Cultural differences,
 - ii) Lack of awareness,
 - iii) Limited engagement options,
 - iv) Political and economic barriers
- i) **Cultural differences:** Cultural differences can be a significant challenge in the acclimatization of the Indian diaspora efforts to change. The diaspora is very diverse, with members from different regions, religions, and socio-economic backgrounds and this diversity can make it difficult to identify common values and climate change priorities. In addition, the diaspora may have different views on this matter the role of technology, government, and individual actions in combating climate change that can be making it difficult to find common ground and develop effective engagement strategies.
 - ii) **Lack of awareness:** Lack of awareness is another challenge in engaging the Indian diaspora in climate change efforts. Many members of the diaspora may not be aware of the effects of climate change and possible solutions to solve the problem. In addition, some members may not prioritize climate change as a problem when considering other pressing concerns related to personal and professional life.
 - iii) **Limited engagement opportunities** Limited opportunities for participation can also be a challenge to engage the Indian diaspora in climate change efforts. Many members of the diaspora may not have access to significant networks, organizations or events related to climate change, which may limit their opportunities to participate. In addition, the language barrier and the limited representation of the diaspora in decision-making Climate change processes can also make effective participation difficult.
 - iv) **Political and economic barriers:** Political and economic barriers can also present challenges to the participation of the Indian diaspora climate change efforts. For example, some members of the diaspora may have been hesitant to participate in the climate-volatile aspirations due to political instability, corruption or lack of trust in government institutions financial barriers such as limited funds or lack of investment in India's capacity may also limit the diaspora's ability to contribute to climate change mitigation and adaptation efforts.

Addressing these challenges requires a multi-pronged approach that includes targeting information and awareness efforts, and building and creating opportunities for participation partnerships with organizations and stakeholders representing the diversity of the diaspora. In addition, it is important to address political and economic structural barriers instability, corruption, and lack of trust in public institutions to create long-term commitment and investments in climate change measures.

7. RECOMMENDATIONS FOR ENGAGING THE INDIAN DIASPORA IN CLIMATE CHANGE ACTION:

There are several recommendations for effectively engaging the Indian diaspora in climate change efforts. These recommendations include raising awareness, building partnerships, and providing opportunities for engagement and use of technology. Awareness raising is critical to engaging the Indian diaspora in action on climate change. This may include targeted information and educational activities addressing the effects of climate change possible solutions to the problem and opportunities for participation. Raising awareness efforts can be carried out through various channels, including social media, community events and cooperation with diaspora organizations and mass media. Partnerships with diaspora organizations and stakeholders can also contribute to the inclusion Indian diaspora in climate change efforts. This may include working with organizations represents the diversity of the diaspora and established networks and channels of commitment. Additional partnerships with universities, companies and NGOs organizations can help use diasporic knowledge and resources to support climate mitigation and adaptation efforts in India. Providing opportunities for participation is another important recommendation for participation Indian diaspora in climate change efforts. This may include the creation of dialogue forums, investments and cooperation that enable the diaspora to actively participate in climate change efforts. For example, the Indian government can create mutual funds or tax credits that provide incentives diaspora invests in clean energy and climate change resilience projects in India. In addition, the government can create channels to provide expertise and knowledge to members of the diaspora to support climate



change efforts in India. Using technology can also be an effective way to engage the Indian diaspora in the climate efforts to change. This may include creating digital platforms and tools that enable access to the diaspora climate change-related information, resources and opportunities for participation. For example, The Government of India can create an online portal that provides information on climate change impacts, solutions and investment opportunities. In addition, social media can be used for communication with diaspora climate change organizations, businesses and other stakeholders' steps, it is possible to use the knowledge, resources and influence of the Indian diaspora to support climate change mitigation and adaptation in India and globally.

8. CONCLUSION:

The Indian diaspora has significant potential to influence climate change mitigation and adaptation efforts in India. The diaspora is very diverse and includes experts in the field in areas such as clean energy, sustainable agriculture, and water supply and those where funds and influence can be used to support climate change efforts. In addition, the diaspora has a strong connection with India and a deep commitment to develop what it can Leverage to support climate change mitigation and adaptation efforts. The climate change efforts of the Indian diaspora require addressing a number of cultural challenges inequalities, lack of awareness, limited opportunities for participation, and political and economic barriers. Overcoming these challenges requires a multifaceted approach that includes cultivation raising awareness, creating partnerships, providing opportunities for participation, and leveraging technology. By doing this, it is possible to exploit the knowledge, resources, and influence of the Indian diaspora to support climate change mitigation and adaptation efforts in India and globally. Additionally, engaging the Indian diaspora in climate change efforts can help create a more inclusive and fair approach to combating climate change. Recognizing diversity and the complexity of the diaspora and the removal of barriers to participation, it is possible to build a more inclusive and effective approach to climate change mitigation and adaptation the needs and priorities of all stakeholders, including marginalized communities and the most affected communities with climate change. Engaging the Indian diaspora in climate change efforts is critical to achieving sustainable and equitable development in India and globally. Recognizing the potential of the diaspora and meeting the challenges of engagement, it is possible to build a more effective, inclusive and equitable approach to climate change mitigation that considers the needs and priorities of all stakeholders.

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