

# Country Risk

## Report - Pakistan & Vietnam



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# INTRODUCTION

We are a nonprofit foundation looking to launch our “clean air initiative”. We have a large budget financed by generous donors interested in aiding climate change impacts in the developing world. For this project in particular, we want to invest in domestic anti-pollution projects. We want to choose one country in which to launch our efforts where we think we can have the greatest impact and chance of success. At this point we have narrowed down our search to two countries: **Pakistan** and **Vietnam**

Both of these countries account for less than 1% of global emissions, yet they are already seeing and feeling the effects of climate change (EDGAR, 2022). One of the main problems is pollution, which is already causing health problems in the population. Each of these countries could benefit tremendously from our project, but we only have the funds to choose one. Therefore, we have to be strategic about the security of our investment according to political and economic risks.



# ENVIRONMENTAL ASSESSMENT



This section aims to provide scientific evidence on the state of the art in environmental terms in the two observed countries. The two factors considered for this preliminary study are greenhouse gas (GHG) emissions and air pollution caused by the presence of PM2.5 particles. The last part takes into account the correlation with health consequences

## PAKISTAN

Pakistan is considered highly vulnerable to climate change due to its geographical location, socio-economic factors, and existing environmental challenges. The country faces multiple climate-related challenges, including extreme weather events such as floods and droughts, glacial melt in the Himalayas and Karakoram ranges, and potential impacts of sea-level rise along its coastal areas.

Greenhouse gases (GHG) are gases that trap heat in the Earth's atmosphere, contributing to the greenhouse effect and global warming. The major GHGs include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated gases. GHG emissions are primarily caused by human activities such as burning fossil fuels, deforestation, and industrial processes.

In the context of Pakistan, the country has been grappling with increasing GHG emissions due to various factors, including a growing population, rapid urbanisation, and industrialization. According to a study conducted by Hannah Ritchie, the major sources of GHG emissions in Pakistan include agriculture, manufacturing, transportation, energy production in terms of electricity and heat. (Ritchie H. et al., 2020)

In terms of air pollution this report takes into account data regarding particular matter with a diameter of 2.5 micrometres or smaller, which is a major component of air pollution. According to a study conducted by International Quality Air (IQA), the global annual average PM2.5 concentration was estimated to be 35 micrograms per cubic metre of air ( $\mu\text{g}/\text{m}^3$ ) in a 24-hour or daily average. However, it is important to note that PM2.5 concentrations are measured in different ways such as the long-term standard (annual average) which is 12  $\mu\text{g}/\text{m}^3$ .

Pakistan faces significant challenges in terms of air pollution, including high levels of PM2.5 concentration. Several cities in Pakistan have been identified as having poor air quality and elevated PM2.5 levels. Lahore, Karachi, and Faisalabad are among the cities that often experience high levels of PM2.5 pollution. Indeed since 2020 the annual average concentration of PM2.5 has increased from a level of 59 $\mu\text{g}/\text{m}^3$  to a spike of 70.9 $\mu\text{g}/\text{m}^3$  in 2022.



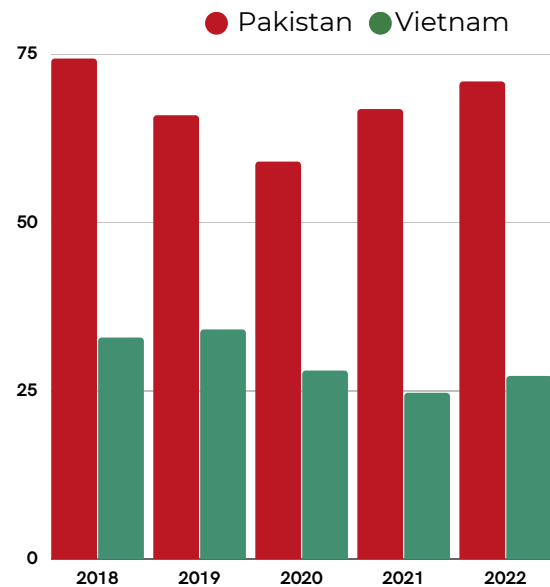
## Vietnam

Vietnam is a highly urbanised and industrialised developing country currently facing exponential economic growth. It is considered highly polluted, holding the 30th ranking of the worst country air quality. This is due to their manufacturing activity as well as outdated transportation, city over-crowding, and reliance on fossil fuels such as coal.

Vietnam creates significant greenhouse gas emissions for its small size, but still less than 1% of the total global emissions. These conditions paired with their geographical location make the country visibly vulnerable to climate change and a target to several disaster risks such as central floods, tropical cyclones, and associated hazards (INFORM Risk Index, 2019). Vietnam has an annual average PM2.5 concentration ( $\mu\text{g}/\text{m}^3$ ) of 25  $\text{m}^3$  according to the International Quality Air. The main sources of GHG emissions in Vietnam are electricity and heat (155.23 Mt), manufacturing (73.86 Mt), agriculture (69.3 Mt) and other industries (60.67 Mt).

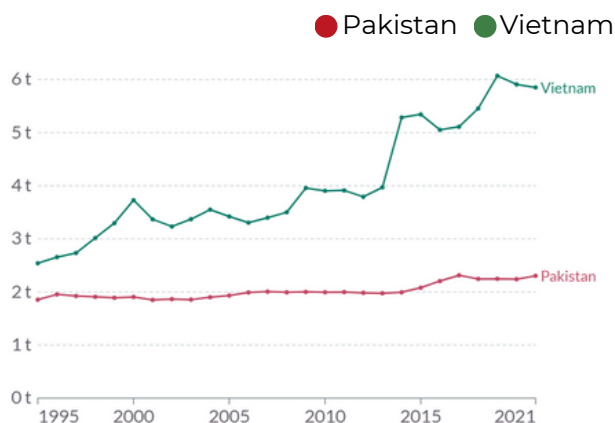
## Annual average PM2.5 concentration ( $\mu\text{g}/\text{m}^3$ )

They are measured in carbon dioxide-equivalents over a 100-year timescale.



## Per capita greenhouse gas emissions

Greenhouse gas emissions are measured in carbon dioxide-equivalents over a 100-year timescale.



Source: Calculated by Our World in Data based on emissions data from Jones et al. (2023).  
 Note: Land use change emissions can be negative.  
[OurWorldInData.org/co2-and-greenhouse-gas-emissions](https://OurWorldInData.org/co2-and-greenhouse-gas-emissions)

Source: International Quality Air 2022

# Health consequences

There are substantial and possibly adverse health impacts associated with air pollution, especially because of high concentrations of PM2.5. It is important to consider that those in vulnerable groups - children, the elderly, those with pre-existing respiratory or cardiovascular problems, and members of socioeconomically disadvantaged communities - are frequently more vulnerable to the negative effects of air pollution on their health.

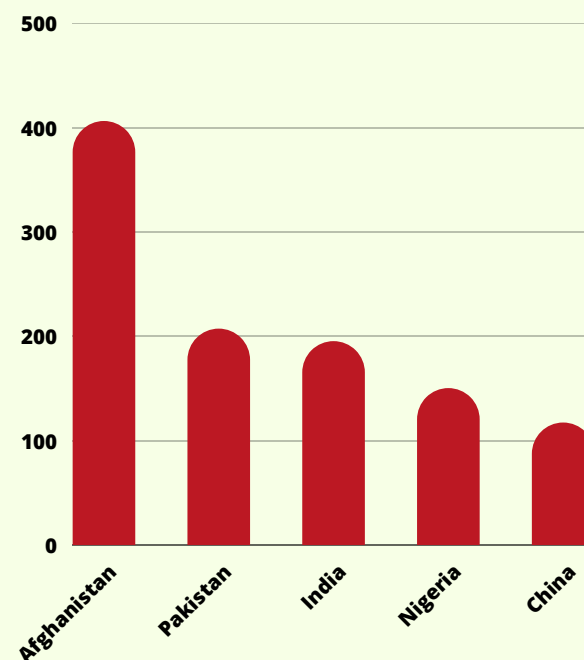
Air pollution, including PM2.5, has been strongly associated with cardiovascular diseases. Fine particulate matter can enter the bloodstream and cause inflammation, oxidative stress, and endothelial dysfunction, leading to an increased risk of heart attacks, strokes, and other cardiovascular conditions. Long-term exposure to PM2.5 has been shown to contribute to the development and progression of cardiovascular diseases. Exposure to high levels of PM2.5 can penetrate deep into the respiratory system, reaching the lungs and causing or exacerbating conditions such as asthma, bronchitis, and other respiratory tract infections.



Prolonged exposure to particulate matter has also been linked to the development of chronic respiratory diseases and reduced lung function. Moreover, studies have shown that long-term exposure to elevated PM2.5 concentrations increases the risk of premature death from respiratory and cardiovascular diseases. The fine particulate matter can cause systemic inflammation, contribute to the formation of blood clots, and negatively impact overall health, leading to higher mortality rates.

## Deaths from air pollution worldwide

Age-standardized deaths per 100,000 people attributable to air pollution (2016)



Source: Health Effects Institute: State of Global Air 2018

# ECONOMIC ANALYSIS

Because we are a nonprofit foundation, we identified the most relevant indicators for our economic risk assessment to be the “**Doing Business Score**” and trends for “**Foreign Direct Investment**”. Although we are not trying to make a profit, our investment still needs to be secure. This is essential for our donors, our mission, and our impact.

The *Doing Business Index* is a score produced by the World Bank to highlight the ease or obstacles of business operations in a country. This score is calculated according to assessments of several indicators relevant to potential investors. Rates of Foreign Direct Investment are also produced by the World Bank. FDI is a cumulation of foreign investment inflows, which can indicate trends of investment reliability in a country.

## Pakistan

Pakistan has made commendable progress in reducing poverty and achieving middle-income status in the last two decades. However, the country continues to face considerable macro-fiscal fragility, which could significantly limit its ability to sustain growth and enhance equity (World Bank Group, 2022).

Macro-fiscal fragility refers to the inability of a country to sustain its fiscal position over the medium and long term and can be caused by several factors, including low economic growth, high fiscal debt, and volatile commodity exports.

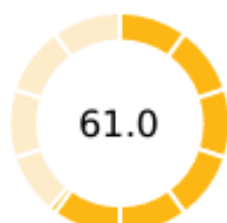
The Pakistani economy was severely affected by the global commodity price surge in 2022, exposing its structural fragility and exacerbating macro-fiscal risks. The Pakistani rupee's 14.4% depreciation against the US dollar in July 2022 and 23.1% in FY22, along with soaring energy and commodity prices, pushed the annual inflation rate to an average of 12.1% in FY22, an 11-year high (Ibid.).

The decline in Pakistan's Doing Business Index ranking has made it increasingly challenging for the country to attract foreign investment, which has been inconsistent in recent years. While there has been an increase in FDI inflows in certain sectors, such as construction and power, due to government incentives and policy changes aimed at promoting investment, the COVID-19 pandemic has had a negative impact on FDI inflows.

**DB RANK**



**DB SCORE**



The pandemic has made investors more cautious about investing in emerging markets, and combined with the macroeconomic and geopolitical risks in Pakistan, it has resulted in a loss of investor confidence (World Bank Group, 2022). These challenges have resulted in credit rating agencies downgrading Pakistan's government bonds, with Fitch IDR ratings being CCC- (Fitch Ratings, 2023). This, in turn, has led to foreign investors withdrawing their investments from the country, making it harder to finance new initiatives and conduct business in the country. As a result, the country's Doing Business Index has suffered a setback, with Pakistan's score dropping to 61 out of 100 (World Bank, 2020).

## Vietnam

Over the last decade Vietnam has lifted over ten million people out of poverty. While they have made significant progress on relieving poverty, wage growth is still not up to par with economic trends (World Bank Group, 2023). This is due to the fact that one of Vietnam's greatest assets in attracting foreign direct investment is their cheap labor force. While Vietnam has made progress, they still have significant challenges before they can achieve upper middle or upper-class country living standards.

Vietnam does have some worrying macro-fiscal indicators, such as their current account deficit and the depreciation of the dong. However, Fitch has just upgraded Vietnam to BB with a "positive outlook"(Fitch Ratings, 2023). This indicates that despite some vulnerabilities and shortcomings, Vietnam compensates their economic status with other factors. For example, its ability to retain and grow FDI

Vietnam's Doing Business Score is 69.8, a ranking of 70 globally (World Bank, 2020). While we do have some concerns with their scores on Starting a Business or Reducing Insolvency, their overall score shows improvement over the years. They also have very high scores on dealing with construction permits, which may be relevant for our potential infrastructure projects.

Foreign Direct Investment is an important indicator for assessing the faith of investors in the state. Vietnam has had a continuously positive trajectory in FDI since 2011, with only slight disruptions due to the pandemic (World Bank, 2022). This trend shows that external investors are increasingly pouring money into Vietnam due to its relative consistency as a profitable and conducive business environment.

FDI is a major economic engine for Vietnam. Their economy relies on this investment for jobs, growth, and innovation. Preserving their status as an attractive host state is essential to their economic viability. Therefore, they will continue to structure their global position to appease foreign investors. Although Vietnam may have other issues with their balance of payments, these influxes of investment have the potential to counteract deficiencies. This source of revenue is the reason Vietnam has been able to grow their economy at such a rapid rate. Our risk analysis board recognizes Vietnam's commitment to maintaining FDI inflows as a positive trait.



# SOCIO-POLITICAL FRAMEWORK



Corruption perception and state fragility indexes are two valuable instruments in assessing domestic risk. The Corruption Perception Index (CPI) is published by Transparency International. It measures the perception of public corruption according to business people and experts (Transparency International, 2021). Corruption is relevant since it could create financial or operational issues that would disrupt our project. The Fragile State Index (FSI) is measured according to cohesion, social, economic, and political indicators (Fund for Peace, 2017). State fragility is also relevant for our foundation because high levels of unrest could end up leading to conflict, which would significantly undermine our efforts.

## Pakistan

Corruption has been a longstanding and pervasive issue in Pakistan, with various governments and institutions facing allegations of corruption and nepotism. Despite the promise to eradicate corruption from the country, corruption in Pakistan has worsened since Imran Khan's ascent to power in 2018, with the country being ranked 27th out of the 100 most corrupt countries in Transparency International's Corruption Perceptions Index (CPI). The CPI identifies the deteriorating rule of law and state capture as the primary reasons for the significant rise in corruption (Transparency International, 2023).

The weakening of the legal framework and institutions that are supposed to enforce laws and hold people accountable for their actions has resulted in a culture of impunity, where people feel that they can get away with corrupt practices without facing any consequences (Ibid). State capture refers to the situation where the powerful elites have undue influence over state institutions, which they use to further their interests, often at the expense of the public. This results in a situation where the elites have greater access to resources and opportunities, while the general public is left behind.

Although Pakistan has formal democratic institutions, the country's powerful military establishment holds significant de facto power (BTI, 2022). This situation has led to a lack of accountability and transparency in decision-making, allowing corruption to flourish. Furthermore, the judicial sector and police are particularly prone to corruption due to inadequate resources and training, and the lack of independence from political influence (Ibid.).



**CPI**  
**Score**  
**27/100**



**CPI**  
**Ranking**  
**140/180**

Source: tradingeconomics.com 2022

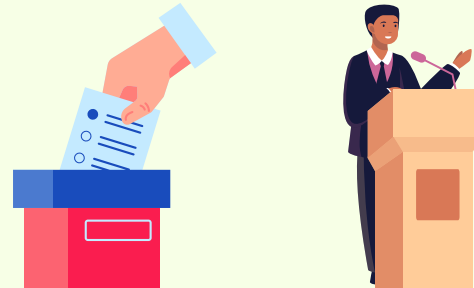
Pakistan is a country with a high level of fragility and has been consistently ranked among the top 20 most fragile states in the world in recent years (Fund for Peace, 2022). Ongoing political instability, economic challenges, and security threats posed by terrorism and militancy are some of the key drivers of fragility in the country. Despite making progress in some areas, such as reducing the incidence of terrorism, Pakistan continues to face significant challenges in promoting stability and building resilience to shocks such as recent natural disasters. The country's vulnerability to natural disasters is particularly concerning, given its susceptibility to earthquakes, floods, and other natural calamities (World Bank Group, 2022). These disasters have the potential to exacerbate existing economic and social inequalities, further increasing the country's fragility.

The outcome of the elections could have significant implications for the feasibility and success of any such undertaking. In this situation, it would be wise to take a cautious approach and assess the political landscape before proceeding with any climate initiative or project.

When considering the implementation of a climate initiative in Pakistan, it's essential to take into account the country's institutional framework governing climate policies, which has demonstrated significant inefficiencies. Numerous factors contribute to this incompetency, including mismanagement of responsibilities and a profound separation between the federal and provincial levels in handling policy implementation.

In Pakistan, the ownership and responsibilities for climate change policy and action are deeply fragmented, leading to a lack of accountability and blurred lines of responsibility (World Bank Group, 2022). This fragmentation is due to a variety of factors, including a lack of technical capacity, financial resources and stable institutional framework.

One example of this fragmentation can be seen in the institutions that were meant to be established under the 2017 Climate Change Act which, unfortunately, have never come into existence due to the aforementioned limitations (Ibid.). Additionally, there is a separation between the federal and provincial level in dealing with climate policies.



Although Pakistan has a dedicated Ministry of Climate Change (MoCC) established in August 2017, it has limited influence due to the devolution of responsibilities of policy implementation to the provincial level. Each province has its own Environmental Protection Agency (EPA) responsible for the respective jurisdiction, leading to fragmentation and a lack of coordination in policy implementation (Ibid.).

Furthermore, there has been no effective devolution of responsibilities or budgets to local or municipal governments below the provincial level. This situation has left rural villages without the necessary resources or governance for critical investments in municipal services or climate resilience, further exacerbating the challenges faced by the country (Ibid.).

implementing a climate initiative in Pakistan would require significant institutional reforms and capacity building at all levels of government. Without addressing these institutional constraints, any initiative would likely face significant challenges and limitations in achieving its goals. The issue of climate change requires a coordinated effort from all levels of government to create policies and take action that will have a meaningful impact.

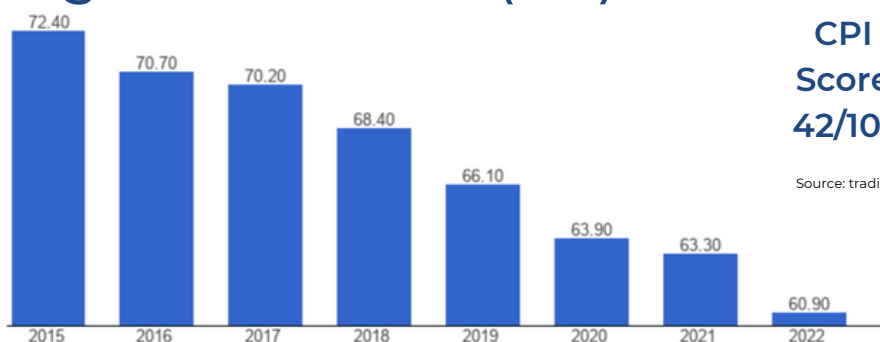
# Vietnam

Vietnam has been marked by high rates of corruption historically, but the CPI has improved eleven points since 2015 (Transparency International, 2023). This is due to the government campaigns against corruption by recent administrations. Several laws, commissions, and investigations have been launched to counteract bribery, political corruption, money-laundering, and other offences (UNDOC, 2021). Vietnam is a full signatory to the United Nations Convention Against Corruption. However, they still have challenges to overcome before full implementation. A strengthening of government coordination between the executive, legislative, and judicial bodies is still needed.

We also see their communist form of government to be a risk. There is large potential for censorship of public opinion or media that can limit transparency. This could threaten our impacts or our messaging. At this time, we still view corruption in Vietnam as a threat to our operations. But, we do acknowledge their positive CPI outlook.

Another relevant indicator is the Fragile State Index (FSI) which measures the vulnerability in pre-conflict, active conflict and post-conflict situations. Comprises twelve conflict risk indicators that are used to measure the condition of a state at any given moment. Data for Vietnam are provided from 2007 to 2022. For comparison, the world average in 2022 based on 177 countries is 65.81 index points.

## Fragile State Index (FSI)



Source: Fund for Peace 2022

Vietnam has become increasingly stable over the years, as reflected in their decreasing score in the FSI. Since 2015, Vietnam has dropped nearly twelve points on this scale (The Global Economy, 2023). This is largely due to the improved economic conditions which have improved the security and livelihoods of the Vietnamese people. There are also relatively stable political conditions accompanied by peaceful transfers of power. Despite being a Communist government, Vietnam is very keen on positioning themselves as a global player. Therefore, they have made themselves conducive to coordinated international objectives. This is a positive sign for Vietnam's future global position.

However, Vietnam's geographic position leaves them very vulnerable to natural disasters such as hurricanes and flooding. These threats are major concerns for Vietnam physically and in terms of economic recovery. Their relationship and proximity to China also presents geopolitical risks. In addition, they continue to use outdated farming practices, mine for coal, and use appliances which emit black smoke. Finally, their political system is vulnerable to censorship that could escalate tensions between government and citizens. All of these factors are worrisome, especially in relation to our project. Nevertheless, we do acknowledge the overall positive trajectory.



**CPI**  
**Score**  
**42/100**



**CPI**  
**Ranking**  
**77/180**

Source: tradingeconomics.com 2022

# SUSTAINABILITY EFFORTS



Since our mission is to enhance the cleanliness of the air, we need to be informed of the conditions which can threaten it. Therefore, we need to look into the policies that currently exist and those set to be implemented in the future. These policies can indicate government support of our work as well as their impacts on our initiative's effectiveness. It is also important for us to assess the credibility of sustainable commitments to identify weaknesses.

## Pakistan

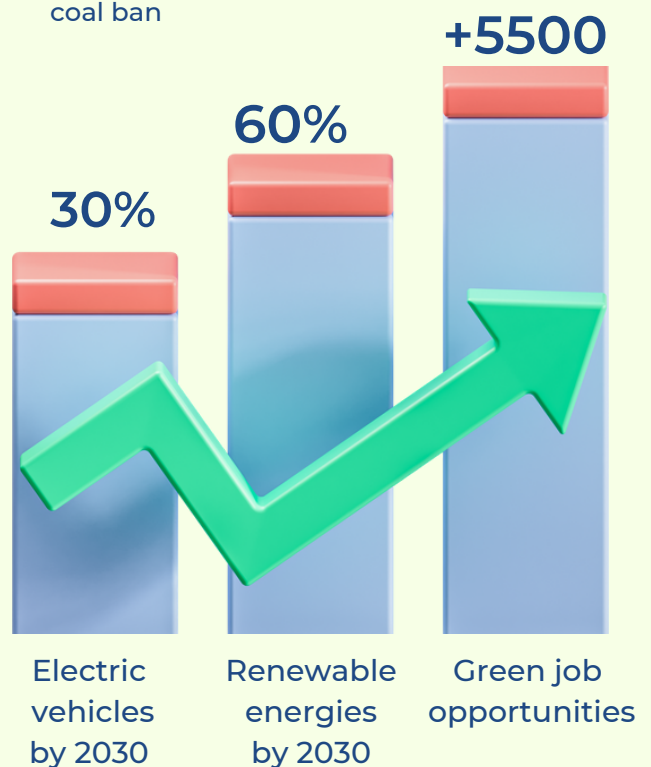
Pakistan has made some strides in implementing environmental policies, but concerns have been raised about the effectiveness of these measures in achieving their goals. The government has set lofty targets to reduce greenhouse gas emissions by 50% of 2016 baseline levels by 2030. To reach this objective, they have focused on shifting towards 60% renewable energy and 30% electric vehicles, as well as banning imported coal and pursuing carbon sequestration through initiatives like the Ten Billion Tree Tsunami Programme, the largest ever afforestation program in the history of the country and the Protected Areas Initiative, aiming to preserve rare flora and fauna, increase green job opportunities for 5,500 people, and promote ecotourism (Government of Pakistan, 2021).

Despite these efforts, implementing these policies has proven difficult. For instance, while banning imported coal was a positive step, large coal and imported gas power plants with "take-or-pay" contracts have negated its effects by making the country more vulnerable to fluctuations in international fossil fuel prices (World Bank Group, 2022). Additionally, Pakistan still imports almost one-third of its energy in the form of oil, coal, and regasified liquefied natural gas (RLNG) at a considerable cost to the economy (Ibid.).

These challenges not only have implications for the environment but also for the overall economic stability of the country.



Imported coal ban



# Vietnam

Vietnam has instituted several laws, commissions, and commitments for sustainability in recent years. First, they introduced penal codes for environmental crimes with corresponding financial penalties in 2001 (Socialist Party of Vietnam, 2001). However, in practice these charges have not been enforced. This is emphasized by the fact that damaging environmental activity has skyrocketed since the time of its passing. The government also made an “environmental administration”, with one of its projects focusing solely on reducing pollution. Finally, there is a National Action Plan in place on air quality management that pledges to improve monitoring, control of emissions, and promotion of diversification of investment sources of air quality management. However, finding transparent data that admits to the underperformance thus far is nearly impossible. Instead, we continue to see deadlines for action extended to later dates. Despite this, we do see the existence of these attempts to be a promising indicator for future partnership.

Vietnam has also instituted ESG standards to keep up with global industry trends. They recently instituted business responsibilities on waste recycling as well as waste treatment (Baker McKenzie, 2021). In addition, they are now requiring disclosure of ESG performance for public companies. However, instead of giving numerical figures, they just give awards to the best performers. This ambiguity seems to dismiss companies from responsibility and hinder the world from receiving comprehensive data.

Vietnam has also made an attempt toward sustainability with their newfound attention towards solar projects. They are currently the host of the largest solar project in South East Asia (VnExpress International, 2020). The government played a role in initiating this transition by introducing a feed-in tariff to support these project developments.



Over half of their projects have been developed by foreign investors, further supporting their openness to sustainable investments. We view this as a very positive indicator for our purposes.

As of now, Vietnam has a 2050 net zero pledge. While this pledge may seem amicable, this is a “critically insufficient” trajectory consistent with 4 degrees of warming (Climate Action Tracker, 2022). Vietnam’s emissions continue to rise despite their pledges due to their reliance on fossil fuels. They also still use coal as a major source of energy with intentions to continue. These failures to act proactively are some of the greatest contributors to the air pollution problem they currently face.

In 2020 Vietnam submitted an updated version of their National Determined Contributions, aiming to reduce greenhouse gases which come mainly from the energy sector (International Monetary Fund, 2022). This goal can be achieved with carbon pricing assessment tools and other emissions trading systems which can be facilitated by green financing, a prioritisation on sustainability, growth in renewable sectors, and an increase in green bonds from the private sector (Duong, 2023).

Vietnam’s lack of appropriate response to the climate crisis, weak commitment to pledges, and underwhelming results on legislations such as energy efficiency and environment protection have certainly impacted the country’s climate and affected the national budget. Vietnam has both the economic and technological capacity to achieve its sustainable goals, it only takes the proper government action and a better legal framework.

# CONCLUSION

After conducting our risk analysis, we have decided that we will be launching our “Clean Air Initiative” in Vietnam. While we do acknowledge that Pakistan has a larger population and more issues with pollution which could lead our work to have a cumulatively “greater impact”, we are not convinced our project could succeed here.

Politically, Pakistan is very unstable. This is reflected in both the corruption and fragility index. The volatility of their institutions and political stability are very concerning for the security of our investment. Also, while they have pledged several efforts towards sustainability, we have yet to see any meaningful progress. This is probably due to the weakness of their governance and fragmentation of implementation. Therefore, we are unsure the government will be a supportive and reliable partner in this project.

Another concern we have is with their “doing business” score. Although we are not trying to gain any profit, the score is still relevant for us in legal and operational terms. This score indicates that foreign investment conditions are subpar and difficult. This also contributes to the reason we have seen FDI trend downward in Pakistan.

This is a sign that foreign investors are pulling their money out of Pakistan due to lack of investment trust. These numbers indicate that investment in Pakistan is highly risky.

Vietnam is not a risk-free country, but the trajectories are positive. While Vietnam has a smaller population size, we do believe we can make significant impacts. Vietnam is a smaller land mass and gives off much higher emissions per capita, so we are hoping our efforts can be more concentrated than in Pakistan.

Although Vietnam is a communist government (which raises concern about transparency, corruption and ethics) they show indications of political stability. This can be seen by the anti-corruption efforts, peaceful transfers of power, and absence of terrorism. They may still have a long way to go, but they are a favourable choice to Pakistan’s political conditions.

Economically, Vietnam has a great outlook and investors across the world are increasingly pouring money into FDI projects. These trends along with the “doing business” score show that Vietnam is willing to continuously adjust their practices to be conducive to foreign investment.

This includes setting their own standards for ESG to align with global sustainability efforts. They have made their own goals for improving their sustainability, but we have not yet seen proper implementation. However, their initiatives for solar power and desire to cater to the global market are promising indicators. Vietnam may not be a “risk-free” country to do business in, but they have shown they are willing to adapt their position to remain attractive to foreign investors. We believe they will welcome our investment and be a much more reliable partner than Pakistan for the launch of our “Clean Air Initiative”.



# BIBLIOGRAPHY

- **Al Jazeera.** (2023). Retrieved from <https://www.aljazeera.com/news/2023/5/9/timeline-imran-khan-from-ouster-to-arrest-in-pakistan>.
- **Baker McKenzie.** (2021). Vietnam: Major changes in the new Environmental Protection Law. [https://insightplus.bakermckenzie.com/bm/attachment\\_dw.action?attkey=FRbANEucS95NMLRN47z%2BeeOgEFct8EGQJsWJiCH2WAVfnLVn2ghRGDHCdtDI3rmJ&nav=FRbANEucS95NMLRN47z%2BeeOgEFct8EGQbuwypnpZjc4%3D&attdocparam=pB7HEsg%2FZ312Bk8OIuOIH1c%2BY4beLEAeA%2BhCYjllkek%3D&fromContentView=1](https://insightplus.bakermckenzie.com/bm/attachment_dw.action?attkey=FRbANEucS95NMLRN47z%2BeeOgEFct8EGQJsWJiCH2WAVfnLVn2ghRGDHCdtDI3rmJ&nav=FRbANEucS95NMLRN47z%2BeeOgEFct8EGQbuwypnpZjc4%3D&attdocparam=pB7HEsg%2FZ312Bk8OIuOIH1c%2BY4beLEAeA%2BhCYjllkek%3D&fromContentView=1).
- **BTI.** (2022). Pakistan Country Report 2022. Retrieved from <https://bti-project.org/en/reports/country-report/PAK#pos0>.
- **Climate Action Tracker.** (2022). Net zero targets. Net zero targets | Climate Action Tracker. <https://climateactiontracker.org/countries/vietnam/net-zero-targets/>.
- **Climate Change Knowledge Portal** (2021) Vietnam Vulnerability. Available at: <https://climateknowledgeportal.worldbank.org/country/vietnam/vulnerability#:~:text=The%20climate%20change%20component%2C%20when,6%2D8%20times%20per%20year.> (Accessed: 11 February 2023).
- **Duong, M. H.** (2023) Vietnam Needs A Green Bond Legal Framework. Available at: <https://www.eastasiaforum.org/2023/02/10/vietnam-needs-a-green-bond-legal-framework/>. (Accessed: 11 February 2023).
- **EDGAR.** (2022). CO2 emissions of All World Countries. [https://edgar.jrc.ec.europa.eu/report\\_2022](https://edgar.jrc.ec.europa.eu/report_2022).
- **Fitch Ratings.** (2023, March). Fitch Affirms Vietnam's EVNNPT at "BB"; Outlook Positive. <https://www.fitchratings.com/research/corporate-finance/fitch-affirms-vietnam-evnnp-at-bb-outlook-positive-17-03-2023#:~:text=Fitch%20Ratings%20%2D%20Singapore%20%2D%2017%20Mar,The%20Outlook%20is%20Positive.>
- **Fitch Ratings.** (2023). Retrieved from <https://www.fitchratings.com/research/sovereigns/fitch-downgrades-pakistan-to-ccc-14-02-2023>.
- **Fund for Peace.** (2022). Indicators. Fragile States Index. <https://fragilestatesindex.org/>.
- **Fund for Peace.** (2017). Indicators. Fragile States Index. <https://fragilestatesindex.org/indicators/>.
- **Government of Pakistan.** (2021). Ministry of Climate Change. Pakistan Updated Nationally Determined Contributions. <https://unfccc.int>.
- **International Monetary Fund** (2022) Press Release; Staff Report; and Statement By The Executive Director for Vietnam. Available at: <https://www.imf.org/en/Publications/CR/Issues/2022/07/05/Vietnam-2022-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-520395>. (Accessed: 10 February 2023).
- **International Trade Organization** (2022) Vietnam Solar Power Sector. Available at: <https://www.trade.gov/market-intelligence/vietnam-solar-power-sector#:~:text=The%20total%20scale%20potential%20for,at%2017.6%20GW%20in%20202.> (Accessed:10 February 2023).

- **Loan T. T.**, (2018) More Than 60000 deaths in Vietnam each year linked to air pollution. Available at: <https://www.who.int/vietnam/news/detail/02-05-2018-more-than-60-000-deaths-in-viet-nam-each-year-linked-to-air-pollution>. (Accessed: 12 February 2023).
- **Ritchie, H. Roser, M. & Rosado, P.** (2020) CO<sub>2</sub> and Greenhouse Gas Emissions. OurWorldInData.org. Retrieved from: <https://ourworldindata.org/co2-and-greenhouse-gas-emissions>.
- **Santos, B.** (2022) Vietnam Set To Open Renewable Energy Market to PPA. Available at: [https://www.pv-magazine.com/2022/10/27/vietnam-set-to-open-renewable-energy-market-to-ppas/#:~:text=The%20commercial%20and%20industrial%20\(C%26I,according%20to%20its%20central%20scenario](https://www.pv-magazine.com/2022/10/27/vietnam-set-to-open-renewable-energy-market-to-ppas/#:~:text=The%20commercial%20and%20industrial%20(C%26I,according%20to%20its%20central%20scenario). (Accessed: 10 February 2023).
- **The Global Economy.** (2023). Vietnam state legitimacy index - data, Chart. [https://www.theglobaleconomy.com/Vietnam/state\\_legitimacy\\_index/](https://www.theglobaleconomy.com/Vietnam/state_legitimacy_index/).
- **Transparency International.** (2021). The abcs of the CPI: How the corruption perceptions index is... Transparency.org. <https://www.transparency.org/en/news/how-cpi-scores-are-calculated>.
- **Transparency International.** (2023). 2022 corruption perceptions index - explore Vietnam's results. Transparency.org. <https://www.transparency.org/en/cpi/2022/index/vnm>.
- **Transparency International.** (2023). 2022 corruption perceptions index-Pakistan <https://www.transparency.org/en/cpi/2022/index/pak>.
- **UNDOC.** (2021). State of implementation of the United Nations Convention against Corruption: Vietnam. [https://www.unodc.org/documents/treaties/UNCAC/WorkingGroups/ImplementationReviewGroup/6-10September2021/CAC-COSP-IRG-II-2-1-Add.28/V2105226\\_E.pdf](https://www.unodc.org/documents/treaties/UNCAC/WorkingGroups/ImplementationReviewGroup/6-10September2021/CAC-COSP-IRG-II-2-1-Add.28/V2105226_E.pdf).
- **VnExpress International, D.** (2020, October 13). Largest solar plant in Southeast Asia begins operating . VnExpress International – Latest news, business, travel and analysis from Vietnam. <https://e.vnexpress.net/news/business/companies/largest-solar-plant-in-southeast-asia-begins-operating-4175723.html>.
- **World Bank.** (2020). Doing Business Pakistan.
- **World Bank.** (2020). Doing Business Vietnam. <https://archive.doingbusiness.org/en/data/exploreeconomies/vietnam>.
- **World Bank.** (2022). Foreign Direct Investment-Net Inflows-Vietnam. <https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=VN>.
- **World Bank.** (2022). Pakistan Country Climate and Development Report. CCDR Series; © World Bank, Washington, DC. <http://hdl.handle.net/10986/38277> <https://archive.doingbusiness.org/en/data/doing-business-score>.
- **World Bank.** (2022). Foreign Direct Investment-Net Inflows-Pakistan <https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS?locations=PK>
- **Zaman, Q.** (2022). Retrieved from <https://www.aljazeera.com/news/2022/4/11/shehbaz-sharif-elected-as-pakistans-new-prime-minister-2>.