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Climate Finance: Sustainable Solutions to Accreditation and Reporting Requirements for Asia-Pacific Countries

Naveed Akram Chaudhry, ACCA, FPFA

Public Sector Financial Management Specialist

Public Sector Governance and Accountability

Email address: naveedakramch.paas@gmail.com

Abstract

Climate changes are wreaking havoc to developing countries despite of the fact that they have negligible contribution to the phenomenon. Most of the developing countries lack the required funding that is essential to cope up with climate related changes. Climate Finance from various external and internal sources are vital to mitigate the changes being caused by the climate crisis. The paper explains the concept of climate finance and assesses the scope of climate financing in developing countries in terms of their progress, readiness level, key stakeholders, opportunities and priority areas for its implementation. A mixed method approach consisting of interviews and literature review is used. Examples are drawn from international best procedures and practices to recommend the policies that enable the use of climate financing for developing countries.

Keywords: Developing countries, Climate Change, Climate Finance, Vulnerability, Readiness.

1. Introduction

“Climate change is the greatest existential threat to humankind on this planet, however, at the same time it also provides an opportunity to bring harmony, consolidation of efforts for the collective welfare and bright future for everyone living on this planet.” While traditional economics deals with the scarcity of resources on the planet, in the context of climate change, the planet is a scarce resource since no other planet offers luxury of life. Rapid growth in industries, following technological advancement, and ever-growing needs of fossil fuels are posing a serious challenge to the climate which manifests itself in the shape of greenhouse gases emissions, adverse climate events such as floods, heat waves, and energy crisis, while also leading to food insecurity.

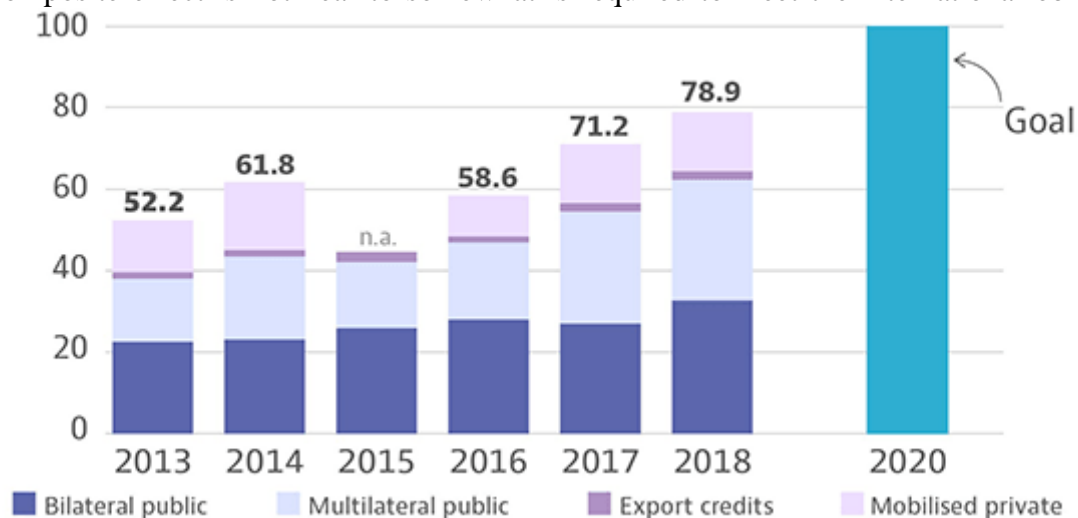
There are approximately 52 evolving economies, regarded as developing countries, all of them are suffering from serious debt problems. They home 40 percent of their masses are suffering from poverty, malnutrition and more than half of them facing fearful climate changes.

Despite being amongst the highest risk countries, they are handcuffed in the face of climate change-related disasters.

Developing countries by themselves do not have the resources and expertise to overcome the risks and harmful effects of the climate changes. Instead, they largely rely upon funds from foreign donors to fight climate change. The World Bank has delivered record US \$ 42.6 B in climate finance during fiscal year 2024, which is 10 % higher than previous year US\$ 38.6 B. Still this amount is only 45 % of the funds needed for climate related projects in the developing countries.

The said financing is only a meagre amount of coveted trillion dollars. Nationally Determined Contributions (NDCs) or requirements spelled out by most of the developing countries have been submitted to the Paris Agreement in 2015, aim to reduce the emissions of Green House Gases (GHG) up to 50 percent by 2030. The United Nations Framework Convention on Climate Change (UNCFCCC) is supporting adaption efforts by providing funds to developing countries by having access to Special Climate Change Fund, Adaptation Fund and the Green Climate Fund (GCF). Under the “Kyoto Protocol”, an International Treaty on Climate Change, the UN special funds have been created solely for the purpose of climate financing for vulnerable and developing countries.

Climate Finance is comparatively a newer concept for developing countries having multiple facets. Developing countries have inadequate public funds and therefore cannot shoulder any burden required to minimize carbon emissions, study changes in weather patterns and its impact on agriculture, cope up with extended heat waves and devastating floods, global warming and its impact on flora and fauna on the planet. They need leverage to substantial exchequer to fulfill their global commitments for mitigating the climate changes. There is a flow of resources from the developed world to the developing nations as shown in Figure 1, though the composite effect is not near to somewhat is required to meet the international obligations.



*Figure 1: Climate Finance for Developing Countries**Source: OECD¹***Scope of Study**

Developing countries are more vulnerable and are being affected adversely by the climate change. Developing countries like Nepal, Pakistan, Bangladesh, Egypt, India, Indonesia, Nigeria, East and South Africa etc., contribute very less to global climate change. However, they are paying the price because they do not have the resources at one hand and at the same time, they have many other issues and priority areas for spending such as education, health and eradication of poverty are a few to mention. Global Climate Financing was promised to be US \$ 100 B per years for the developing countries to take action against the climate changes such as adaptation to climate changes and cut emissions.

The purpose of equitable distribution of US \$ 100 B could not have been achieved so far and only 8 % of it could have been distributed as per plan due to multiple reasons such as lack of readiness, weak or absence of efficient institutional framework, deficiency of technical expertise and absence of assessment mechanisms and implementation plans. Unfortunately, the developing countries have a number of complicated issues such as limited fiscal space, population explosion, political instability, red tapism, corruption, unskilled human capital, lack of commitment and absence of policies, which makes it difficult to spare resources to fight against the slowly emerging climate menace.

This study aims to assess the opportunities for climate financing for developing countries based on the countries' needs and readiness level while suggesting potential avenues where climate financing can be effectively utilized.

2. Research Methodology

This paper employs a mixed-methods approach consisting of qualitative research and a desk review. Telephonic and online interviews were conducted with climate change stakeholders including high-ranking government officials and climate consultants. Additionally, a literature review from the sources like the World Bank Reports, the United Nations studies, organizations engaged on the study of environmental and climate changes, articles on the climate change, newspapers, reports and publications of multilateral organizations on the subject have been analyzed.

3. Discussion*What is Climate Finance? Some Definitions and Sources*

The climate finance is defined by the United Nations Convention on Climate Change (UNFCCC) "the financial support for reduction in emission and diminishing the Green House

Gases. Preservation of ecosystem and increasing the human endurance to compete with the climate changes”. The climate finance has gained immense importance now a days as climate changes have put the existence of human life on this planet at stake. This is the reason that millions of dollars are being allocated and spent for the purpose and it was the topmost agenda at Conference of Parties (COP).

The mitigation and adaptation efforts at the local, national and international level corroborating and supporting all out efforts are the focus and direction of the climate finance, these include funds drawn from various financial streams such as: -

- I) The public sector, which includes funding allocated as part of annual national budgets
- II) The private sector, private capital, and the carbon market² and
- III) From development banks and international funds, including but not limited to the World Bank and Asian Development Bank.

According to initiative on climate policy “Global Landscape of Climate Finance Report 2021”, total financial impact in 2019-20 amounted to US \$632 Billion (B). Out of this, the share of public sector finances was \$321 B (51% of total expenditure) while private corporations spent \$124 B, banks contributed \$122 B, and households allocated \$55 B in the form of transitioning to climate-friendly lifestyles. On the other hand, global climate funds committed \$5 B while institutional investors gave away \$3 B. It is important to note here that a large portion of these climate finances, however, stay in their countries of origin, the majority of which are Western developed nations. Consequently, poor underdeveloped countries are left with inadequate climate finances and thus vulnerable to climate change impacts.

In the “Cancun Agreement” of 2010, developed economies promised a sum of US \$100 B for financing the climate related projects in developing countries. The relevant divisions of UN also support and finance climate friendly projects such as renewable energy projects, fossil fuels replacement initiatives, electric cars, plantation, awareness, technical assistance, policy formulation and convincing the developing countries for more eco-friendly projects. The holistic approach is required at all fronts as otherwise, global warming, melting of glaciers, changes in seasonal patterns, flooding etc., will be devastating and there will be irreversible effects on the planet in the longer run.

Despite these commitments from the developed world, the actual sums that have been received by developing countries have been far less than what was promised. According to the Organization of Economic Cooperation and Department (OECD) report, the climate finance flows to developing countries from the developed world have amounted to US \$82 billion in 2019-20. However, according to Oxfam, this figure is inflated while the real climate financial flows are not more than US \$22 billion. The reason for this discrepancy is that much of these finances are in the form of loans extended for climate mitigation and adaptation projects and have to be returned in the future. In other words, these are future negative flows.

The Need for Climate Finance in Developing countries

Developing countries are always deficient in fiscal and monetary space. Lack of institutional arrangements and resources makes it difficult to see beyond their basic problems, so they cannot do much about the menace like climate change. Kyoto Protocol and Paris Agreement provide a financial mechanism to put the house in order. The financial system can be dealt by more than one organization for better transparency and delivery.

A UN human development report categorizes developing countries with insufficient financial resources coupled with fast expanding population. Most of the developing countries are basically agricultural economies, which are directly dependent on rain and temperature, so they are more vulnerable. The agriculture sector in developing countries contributes one to two third of the national GDP and employs approximately half of the labor force, which makes global climatic changes a major threat. Hence, it is no surprise that the Global Climate Risk Index 2021 report considers developing countries exposed to risk both in long-term and short-term index.

Agriculture, food security, health, and climate change go hand in hand. Agricultural productivity is influenced by weather and climatic factors. When climate change influences adverse climate and weather events, agricultural productivity falls, as events like floods and droughts destroy crops which leads to food insecurity, which is a major challenge.

On the other hand, as productivity is associated with income and the rural populations, whose primary source of income is agriculture, are forced to move towards cities to find alternative employment opportunities. Rapid rural-to-urban migration then brings its own set of challenges as urban centers are not equipped to handle such a large population and do not develop as fast as their rise in population. A clear consequence of the rise in urban activities is observed in developing countries is smog – a combination of smoke and fog which is produced when a variety of climatic factors combine – has become a health hazard, which then exposes the population to catapulting health issues.

Lastly, developing countries' fragile ecosystems consist of coastal saline lands, subsistence agriculture in semi-desert areas, irrigated agriculture in the Indus plains, alpine agriculture in the northern mountainous areas, fisheries, forestry, and livestock, which are more risk prone to changes in climate.

Any attempt to mitigate and reduce the risks associated with climate change requires a large amount of funding. Given vulnerable economic position developing countries need additional financing in order to support their efforts against climate change.

Evaluation of Countries' Readiness

I) Capacity of Existing Institutional Setup and Key Stakeholders

National plans, policies, strategies, and programs related to climate change along with efficient communication, implementation and follow up of agreements in line with international protocols are being considered by most of the developing countries.

Although the organization responsible at the central level were there in almost all the countries encapsulating the term the “Environment”, however, with the advent of “Climate” the scope has been broadened and now sub offices and branches in far off areas as well are also functional. To avoid the delays and loss of precious time and loss of opportunity to get International Climate Finance, there should be a department at the central level, well empowered in each country to coordinate with the crucial climate related entities such as Meteorological Departments and institutes of oceanography and water resources work under Science & Technology offices.

As the phenomena is global so Global Change Impact Studies Center (GCISC) for climate studies related to the impact of climate change on key socio-economic sectors such as Agriculture, Water, Food, Energy, Health and Ecology are also working or being erected in each of the developing country. It helps in devising appropriate climate adaption and mitigation measures. Dedicated Climate Finance Units are also there to look for opportunities for climate financing.

The key stakeholders, beside government departments in the public sector, are multilateral and bilateral Development Finance Institutions (DFIs), national DFIs, government agencies, and different climate funds. The climate finance actors in private sectors are banks and commercial financial institutions, private equity venture capital and institutional investors.

Though, climate change is increasingly becoming priority for the Governments, but multi-sectoral and multi-stakeholder approach is limited and not being fully implemented at all levels. In order to mainstream and integrate climate requirements into developmental sectors, countries need to focus on skill and capacity development on the one hand and leveraging finance from both private and public sector on the other hand.

II) Mitigation and Adaptive Measures and Priority Areas

Mitigation and adaptation are two very important concepts in the arena of climate change. Mitigation entails ways and means to reduce the emissions of Green House Gases (GHG) in the environment and adaptation refers to the question of how to respond current outcomes and changes that can be visualized in the years to come.

Since climate change affects agriculture in a variety of ways and in variable geographical settings, as discussed in the previous section, there is an opportunity to devise a host of schemes and programs which can attract foreign climate finances. The Green Climate Fund (GCF) can be successfully tapped for such schemes. There are other climate finances windows and a host of other International Organizations working in the field of Agriculture and Food Security and helping developing countries and whose funds can be accessed successfully.

The second priority area where there is huge potential of climate adaptation and mitigation and the potential to attract Foreign Climate Finance is the Energy Sector of the countries. Energy mix of the most of the countries consists of Hydro, Nuclear, Wind and Thermal components. Climate can impact seasonal water flows, wind flows, transportation and mining of fossil fuels as well as energy consumption patterns. These factors impact countries' energy sector in a variety of ways such as decreased water flows, to hydroelectric power stations, windstorms that affect wind turbines, temperature rise that boosts demand for electricity and dust storms which affect the output of solar panels. Similarly, climatic factors in transmission, dispatch and consumption can be leveraged by the Climate Finance Unit under the Central Governments by devising smart energy schemes. This was successfully done in India by replacing hundreds of millions of incandescent light bulbs with LED lights through domestic Efficiency Lighting Program. Most of the developing countries also have huge potential of mini, micro and small hydra power stations in the northern alpine mountainous areas which can be successfully leveraged as Climate adaptation and mitigation schemes.

The Health Sector can be another priority area where strategies, schemes and programs can be formulated and leveraged for climate finance. During winters, smog becomes a serious health hazard, as it envelops some of the largely populated cities in the countries. Schemes related to each factor can break the combination and reduce smog such as mitigation schemes related to industrial air pollutants, both on large and small scale, suited to the available finance can be leveraged for getting international climate finance. At the same time countries are also searching for carbon pricing mechanism and are learning newer techniques to reduce the carbon emissions.

International Best Practices

The challenges of climate change are multi-dimensional and developing countries readiness in this regard not up to the required level, which is required to attract climate finance. Some of the developing nations have successfully implemented strategies, which have attracted international climate finance and abinitio these can be easily replicated by other countries having same socio-economic and climate conditions.

For example, the most climatically vulnerable countries in the world also include Nepal and its approach towards climate change can be replicated by many developing countries e.g., Pakistan & Bangladesh. Nepal's approach towards climate change readiness measure is that instead of having a regional or sub-regional readiness program, it focuses on the climatic vulnerabilities of every village through its "One Village at a time approach". It is because Nepal's climate policy makers are of the opinion that every village community has its own peculiar climate vulnerabilities and needs a unique readiness approach. The readiness of a Himalayan Mountain village is different from a village located in a riverine and inundation flood prone area. This approach is building a model for adapting to climate change on a massive scale and successfully attracting international climate finance including US\$ 150 million from the World Bank. It is an excellent example for other developing countries to follow.

4. Policy Recommendations

The policy recommendations are divided over 6 steps and are as follows:

Step 1 Stakeholders Consensus

At the national level, the consensus of the stakeholders is essential for their engagement in whole process that would bring ownership which is important for sustainability of development and climate finance. A broad-based consensus between public and private sector and between the Federal and Provincial governments is the first step to effectively leverage for Climate Finance.

At the international level, it would help to raise common voice by the most climate affected countries in the world, to bring acceptability of performance reports, timely meetings of COPs and periodic reviews on compliance whenever required. All these would help to channelize the international climate finance.

Step 2: Legislative and Institutional Reforms

For any strategy to be successful, it needs a legal and institutional setup for its implementation. Considering the fact that Climate Finance is a relatively new field, the Rules, Regulations and Institutions need to be in line with the concept. Federal legislation needs to complement Provincial and Local Climate related regulations. Federal departments/ divisions namely Climate Change and Sciences & Technology divisions need reorganization to avoid duplication of efforts and made more efficient.

Step 3: Capacity Building, Knowledge and Dynamic Data Center

Proper climate change policies are on the table in most of the countries since the onset of the current Century. The problem is not that the countries are lacking climate finance, but the problem is that they are lacking capacity to obtain international climate finance, utilize it to achieve the objectives efficiently. There is an accreditation process to obtain this finance, and the countries are seriously lacking capacity for this competitive arena. They need a strategy to develop the capacity and knowledge of climate related institutions to effectively tap the Climate Finances both local and International. The presence of a Dynamic Data Center related to climate is a necessary step in devising bankable projects based on reliable data.

Step 4 Replication of International Best Practices

The replication of international best practices particularly of the countries of the Asia-Pacific (APAC) region with suitable modification as per their specific requirement is also required.

Step 5 Formulation of Policies and Programs

Once the institutions related to Climate Change Finance are capable and equipped, the time comes for formulation of policies and programs that solve climate

change related issues of communities and which can fetch International Finance. These finance opportunities are available but the procedures to tap these are mostly difficult and convoluted.

The developing countries obtain majority of international finance as development finance through multi-lateral DFIs and that is typically allocated to the projects rather than system interventions without fully consideration of climate objectives. Countries need long term policies with linkage of project base financing with policy-based financing.

Programs for most affected sectors are also required e.g. China Pakistan Economic Corridor (CPEC) is very important project for the economy of Pakistan, but the impact of CPEC on environment have never been examined. Lots of transport movement is expected and burning of fossil fuel and much more which need to be considered while making policies.

Step 6 Dynamics of finance

The complexity of climate finance requires innovative financial instruments to handle this situation. There are many instruments available in multi-lateral and international organizations which can be used as per requirements of the sector / projects such as seed capital, concessional loans, venture capital, equity bonds, grants and guarantees. For large scale green infrastructural projects, the financial needs can also be met through underwriting by investment banks. All these financial arrangements are subject to meeting the strict accreditation criteria.

Removal of fossil fuel subsidies as measure to decarbonize may not be taken as policy measure for most of the countries in view of its peculiar economic conditions as most of the countries are already facing severe financial crisis and it would further deteriorate if this decision taken in isolation.

The role of central banks is also very much important for channelizing the capital through green banking. Green duty drawback can also be introduced as financial policy targeted intervention to support climate friendly industries to help reduction in CO2 emission.

The developing countries can follow the examples of each other e.g. Pakistan can follow the example of Indian Green Guarantee – a brave Indian initiative financed by the World Bank with risk coverage by the UK government to build green infrastructural projects, as an innovative financial instrument with some adjustments as per its specific requirements. The role of private sector is important to make this option viable. Not only the support from the international institutions will help bring fruits but dedication and efforts made by the developing countries help to bring the desired results.

5. Conclusion

In international climate finance arena, the developing countries are nascent entrants having limited exposure of generating, receiving and distributing these resources with evolving

institutional setups. Developing countries need to make no stone left unturned kind of efforts for both mitigation and adaptation against the challenges being posed by the climate changes. The readiness is the first step in the right direction in this regard.

As the money makes the mare to go, so funding in the shape of grants, loans, financing from the internal and external sources is direly required in addition to awareness cum readiness. Once the funds are available then the crucial issues like governance, institutional framework are vital for mobilizing, allocating and effectively utilizing the available funding. Transparency, coordination, and accountability is essential for maximizing the output and achievement of desired goals. Concerted efforts from the international institutions, governments, civil societies and stakeholders are required for acquisition, equitable distribution and utilization of the available resources.

Most of the developing countries have very limited fiscal space to make major intervention to follow its climate agenda. Public sector interventions are required for regulatory reforms and creation of incentives for private sector to catalyze investment to initiate projects in public as well as private sector. The developing countries have acquired some support under institutional arrangements, but this is still a meagre amount in view of extent of threat to climate change. Technical assistance and capacity building, knowledge sharing, replication of international best practices with suitable modification as per specific requirement can take the developing countries step forward and can help achieve objectives in the longer run.

In nutshell, climate finance is going to play a key role in supporting developing countries' efforts and promote sustainable development. Prioritizing key areas and research, implementing policy recommendations and fostering innovation can accentuate role of climate finance for developing nations and advancing global climate goals.

6. References

- Aleluia, J., Jamshaid, S.H., Muller, N. (2019). Study on the Introduction of Carbon Pricing Instruments in Pakistan. UNFCCC.
- APR (2019). Updated Implementation Plan. GCF.
- Carbon Markets (n.d.) UNEP
- Adhikari, B., & Safae Chalkasra, L.S. (2023). Mobilizing private sector investment for climate action: enhancing ambition and scaling up implementation. *Journal of Sustainable Finance & Investment*, 13(2), 1110-1127.
- Ameli, N., Drummond, P., Bisaro, A., Grubb, M., & Chenet, H. (2020). Climate finance and disclosure for institutional investors: why transparency is not enough. *Climatic Change*, 160, 565-589.
- Arshad, M.U., Hassan, S., & Yasir, S. (2023). Exacerbating Gender Inequalities amidst Climate Change: A Comprehensive Exploration of Vulnerabilities, Coping Strategies, and Resource Dynamics. *Journal of Humanities, Health and Social Sciences*, 1(1), 35-50. Attridge, S., & Gouett, M. (2021).
- Development finance institutions: the need for bold action to invest better. ODI Report. Barbhuiya, S., & Das, B.B. (2023).
- Life Cycle Assessment of construction materials: Methodologies, applications and future directions for sustainable decision-making.
- Climate Change 2023 Synthesis Report (2023). Intergovernmental Panel on Climate Change
- International Journal of Environmental Sciences and Natural Resources ISSN: 2512-1119-
Research Article Saifullah Published November 15-2017
- Intro to Cancun Agreements (n.d.). UNCC
- Landmark carbon marks turning point for global “Blue Carbon” market (2022). Press Release
- Lim, G., Ng, T.H., Zara, D. (2021). Implementing a Green Recovery in Southeast Asia. Asian Development Bank.
- Mahmood, A., & Marpaung, C. O. (2014). Carbon pricing and energy efficiency improvement--why to miss the interaction for developing economies? An illustrative CGE based application to the Pakistan case. *Energy Policy*, 67, 87-103.
- Suleri (2021). There is no Planet-B. The News.
- Adhikari, B., & Safae Chalkasra, L.S. (2023). Mobilizing private sector investment for climate action: enhancing ambition and scaling up implementation. *Journal of Sustainable Finance & Investment*, 13(2), 1110-1127.

Ameli, N., Drummond, P., Bisaro, A., Grubb, M., & Chenet, H. (2020). Climate finance and disclosure for institutional investors: why transparency is not enough. *Climatic Change*, 160, 565-589.

Arshad, M.U., Hassan, S., & Yasir, S. (2023). Exacerbating Gender Inequalities amidst Climate Change: A Comprehensive Exploration of Vulnerabilities, Coping Strategies, and Resource Dynamics. *Journal of Humanities, Health and Social Sciences*, 1(1), 35-50.

Attridge, S., & Gouett, M. (2021). Development finance institutions: the need for bold action to invest better. ODI Report.

UNDP-Readiness for Climate Finance

What is the Kyoto Protocol? (n.d.). UNFCCC