

## Review Essay :

### Climate Finance: New Dimension in Foreign Aid

Florian Weiler, Carola Klöck, Matthew Dornan, 2018, Vulnerability, good governance, or donor interests? The allocation of aid for climate change adaptation, World Development, Volume 104, 2018, Pages 65–77, ISSN 0305–750X,  
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**Foreword:** Climate Finance is an important 21<sup>st</sup> century variant of development aid and is critical in the fight against climate change and ensuring climate justice. As per the Climate Promise, developed nations had pledged to commit 100 billion Dollars an year to recipients but it is found that the actual allocated amount is only 18 – 22.5 billion Dollars annually (Oxfam) as opposed to self-reported figures of 80 billion Dollars in the OECD Database (OECD, 2021). In targets set by multiple United Nations Climate Change Conferences, developed nations have confirmed payment of ‘agreed full incremental costs’ of mitigation. (UN, 1992, Article 4.3) Foreign Aid motivations and subsequent distribution are highly researched in the literature. A growing body of work for similar dissection of climate finance is being undertaken and this paper seeks to summarize the findings of the most relevant papers in comparison to select literature in foreign aid.

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### **Vulnerability Good Governance, or Donor Interests? The Allocation of Aid for Climate Change Adaptation.**

Climate Finance adds another dimension to the distribution of Foreign Aid. This paper puts forth the research question - “What are the criteria that determine the Allocation of Climate Aid?” This question is highly important for two specific reasons – 1) there is an urgent need for understanding the relationship between adaptation finance and development. 2) there is a significant need for improving climate outcomes for the most vulnerable countries. With this principle in mind, the Paris Climate Accords and subsequent discussions have reiterated the need for significant increases in adaptation finance (UNFCCC, 2015). Foreign Aid literature has shown that clauses of conditionality designed as economic and policy tools that promote the self-interest of donors and promote policies derived from the Washington Consensus are highly common occurrences in Foreign Aid distribution. In the interests of Climate Justice, similar synergies between aid and donor interests in the distributional politics of adaptation needs to be researched.

A dyadic Dataset based on project level data on adaptation aid flows from 2010 to 2015 reported in the OECD Creditor Reporting System is used to test the dependent variable which is adaptation aid. To limit over-reporting, two variables [principal aid per-capita and principal and significant aid per-capita] are constructed using the Principal or Significant Aid Rio self-markers that donors report while filing. (OECD, 2011). Over-reporting is seen less in principal aid flows; therefore, a discount of 50% is applied only to

significant aid in the second dependent variable as donors seek to inflate to meet their climate finance commitments. Variables are constructed using a summation of all aid flows from donor to recipient in a single year. The paper approaches the research question by considering the following four hypotheses for aid allocation. The accompanying independent variables as described in brackets are subsequently modeled to determine statistical significance using a two –stage Cragg model to account for recipient selection and allocation.

- H1A: Recipient Need- Countries with higher physical vulnerability deserve more aid. [Notre-Dame Global Adaptation Index, Index of Structural Vulnerability to Climate Change, Climate Risk Index]

Countries with high physical vulnerability are allocated more aid such as Small Developing Island Nations, for instance, the Maldives.

- H1B: Recipient Need- Countries with lower adaptive capacity deserve more aid.
- H2: Recipient Merit – Countries with better governance deserve more aid. [GDP per-capita, squared GDP per-capita, Dummies (Least Developed Countries, African Nations, Small Island Developing States), ND-GAIN adaptive capacity sub-index, Worldwide Governance Indicators]

The results find that there is a positive and statistically significant effect with the WGI on the amount of discounted significant adaptation aid. This is supplemented by the significance of the ND-GAIN Index which measures adaptive capacity. Therefore, these results support H2 and the importance of recipient merit in aid allocation. On the other hand, the amount of aid follows a parabolic distribution with medium income nations with better adaptive capacity allocated more because of perceived “aid effectiveness”.

- H3: Donor Interests – Greater the economic or political significance of a donor more should the aid be. [Total Exports (UN Comtrade Databases), Colonial Ties (Quality of Government Institute), UN Voting, Distance between partners].

Trade Ties and Colonial Connections are both statistically significant variables and indicate that cultural and economic ties aligned with the donor's interests have an impact on aid allocation albeit to a much lesser degree. Colonial connection accounts for selection but not allocation. It is found that population also drives the amount of allocation aid assigned although it does not translate into good per-capita allocation. The strongest predictor of adaptation aid in both the selection and allocation stage is found to be total development aid per capita. This signifies a path dependency. The authors argue that this is consistent with literature as adaptation is a subset of development and is an important determining factor in the development of resilience.

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## Relevance

In summary, Physical Vulnerability influences both selection and allocation while adaptive capacity only influences the former. Donor trade relations influence selection to a lesser degree than vulnerability. Poorer Countries receive more per capita aid and in line with the development aid literature it is found that good governance is an important indicator of selection and allocation. Synthesizing all these findings shows that need, merit and donor interests are all closely linked to who gives climate aid to whom and why. This topic is a relevant addition to the 21<sup>st</sup> century literature on the different approaches to foreign aid. It develops the prior research on the positive relationship between vulnerability and allocation of aid (Betzold and Weiler, 2017) by considering multidimensional variables including donor aid interests, governance measures and alignment with development aid ties. It contradicts and disproves earlier literature that uses data from NIUE to argue that aid is negatively correlated with governance and government actions - in turn decreasing the impact of aid and increasing vulnerability. (Barnett, 2018). This is important as it validates the intentions of donor in ensuring effectiveness - better governance and institutions is related to better outcomes as in the case of Botswana (Acemoglu & Robinson, 2012). It is

important to note that the recipient merit argument no longer holds true for Aid in Africa (Weiler & Sanubi, 2020) and is attributed to the 'democratic fatigue' hypothesis (de Walle, 2016). Climate finance is a relevant subset just like humanitarian aid which responds to crises, and its motivations show that they differ significantly from the interests of general development aid in their priority consideration of vulnerability in line with the specific goals of improving readiness to climate change while the impact of donor interest is marginalized. This contradicts the literature on foreign aid where conditionality of aid in relation to adoption of "good policies" derived from the Washington Consensus have served as significant predictors. It has been shown that the latter does not necessarily translate into development and economic growth (Rodrik, 2006). By relinquishing the myopia surrounding policy and trade returns, the potential for skewed incentives and poor targeting is reduced which coupled with an onus on 'effectiveness' can improve the chances that aid reaches its objectives and targeted audience. This paper provides an overarching assessment of the motivations and subsequently provides a framework for the analysis of the distributional impacts of climate aid in the same manner illustrated in several articles that pertain to foreign aid. (Briggs, 2017; Islam, 2020). One aspect could be the understanding of climate finance in domestic civil processes. Environmental Stressors have the potential to exacerbate Civil Conflicts (Kouby, 2019). Like the correlation between Humanitarian Food Aid and Civil Conflicts in Recipients (Nunn, Nathan & Qian, AER), climate aid could serve as a 'golden goose' in conflict escalation. Climate Aid could result in close ties with concepts that extend to 'rent-seeking', 'resource curse' and 'corruption' (Jakob et.al, 2014). "On the Empirics of Foreign Aid and Growth" (Dalgaard et.al, 2004) demonstrates that aid effectiveness is closely tied to climate with tropical areas responding inadequately to aid. This has alarming consequences as most of the vulnerable nations fall within the tropical zone. The articles discussed below will expand on the questions posed by the review article - there is a need to understand what the ramifications of climate aid support will be.

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## **Who gives Foreign Aid to whom and why?**

This seminal article on the descriptive nature and causative predictors foreign aid or general development aid flows laid out several important outcomes which are largely consistent with the findings outlined in the review paper. The paper finds that colonial ties and political alliances in ideology are important determinants of aid flow. Additionally, it finds that democratic governance structures in recipient nations are highly important. On the other hand, Foreign Direct Investment responds to the 'good policy' narrative of trade-friendly policies adopted by the recipient nations along with the protection of property rights. The review paper comes to a similar conclusion regarding trade and colonial ties in donor incentives' but finds that vulnerability takes a greater precedence in climate aid determinants. This shows that climate aid is a significant subtype amongst development aid that requires a separate set of strategic indicators.

## **Structural Analogy in the Development of Climate Aid: A Case of Bangladesh**

A study of climate aid and recipient climate policy (Kono & Montinola, 2019) produced no evidence that there is any improvement in climate legislation as a response to the former. This is largely due to the poor quality of climate aid disbursing and policy response data. This in turn provides limited feedback in optimizing the decision-making process of donor countries in terms of demonstrating effectiveness. A case study to highlight this data gap is presented for Bangladesh. While Bangladesh has received 60\$ billion dollars in official development assistance (ODA) in the last 35 years, only 10\$ billion has gone towards disaster risk management and climate change. This is largely because it is very hard to categorize funds as climate related prior to the introduction of the Rio Marker even accounting for which there are discrepancies. Additionally, aid towards areas such as renewable energy, agriculture and water may not technically fall under the domain of climate change, but climate vulnerabilities require multidimensional

sets of interventions. As such many arguments are made for adaptation climate finance to be made concurrent with development. This contradicts the discussion in the review article about the differing rationales behind each domain as being important and raises questions. An increasing onus on climate related projects may reduce the disbursement of general aid thereby creating inefficiencies as recipients grapple with a lack of finance and look to climate aid - thereby subsequently diluting donor intent.

### **Bureaucratic Politics and the allocation of Climate Finance**

This paper tests the hypothesis that recipient intra-governmental factors influence donor aid commitments. It uses an OLS regression model on time series data to support literature which argues that the diverging objectives of climate finance make it separate from Development Aid (Halimanjaya, 2015). This qualifies the findings of the review article by showing that bureaucratic politics have an impact on the selection and allocation of climate finance. It shows that at the allocation stage, countries with a dominant Ministry of Development secure greater aid. Involvement of the Ministry of Environment led to donors favoring their UNFCCC Allies as opposed to non-allies. This relates to the review article by qualifying and improving its finding of good governance measures as a significant predictor of climate aid. It shows that as opposed to only structural measures of good governance which the WGI is based on, political factors determine aid allocation as bureaucratic involvement is a function of political choice and movement. This is a very important add-on to the base argument as Climate and Development Objectives are often at odds with each other.

### **Aid and Adaptation to Climate Change in the Pacific Island Countries**

The Pacific Islands (a part of the SIDS) are some of the most vulnerable nations in the world but receive a minor share of global climate aid. The article is important because it uses the small scale of the islands to understand the use of climate adaptation aid at a more granular level – sectoral. This expands on the limitations on the review article and existing literature by understanding the actual implementation of

projects on the ground. The authors find that aid principally went into environmental protection and largely towards policy development and research. This was seen in the other categories such as water and sanitation and agriculture as well. Only in disaster management was 80% of aid amount disbursed to on the ground projects. This raises an important observation – principal amounts were spent on planning, which is necessary but must translate to actual adaptation strengthening at the local level. The distributive impacts of aid must reach the most vulnerable people, especially in islands with dispersed populations. This shows that Donors should focus on local – level and community aid (Nunn, 2010). Additionally, they find a lack of clarity in the OECD Rio Markers upon which the analysis is based off. Projects can be marked under multiple categories (such as Mitigation and Adaptation simultaneously) which obfuscate the ability to understand the effectiveness of aid. In relation to the general aid literature, this allows for greater potential for poor targeting on the part of the donors' and skewed incentives amongst the recipients.

### **Climate Finance for Developing Country Mitigation: Blessing or Curse?**

This paper considers the macroeconomic impacts of climate aid in conjunction with their impact on development prospects. This paper is important for two major reasons. Prior literature has tried to quantify the impacts of foreign aid on climate outcomes but does not consider existing institutional performance and economic outcomes. On the other hand, literature on the “natural resource curse” is well documented but does not consider climate finance as a resource. A dynamic panel regression method on longitudinal data from 2000 – 2018 of over 133 countries showed that impact of recipient vulnerability on mitigation funding is non-significant but there is a positive significant relationship between adaptation funding and vulnerability. Consistent with the review article discussion on adaptive capacity, it is found to be parabolic wherein ‘moderately vulnerable’ countries were more likely to receive climate financing as opposed to ‘most vulnerable’ countries especially for South-Asian and Sub-Saharan African regions. The lowest adaptation finance resources are distributed to the most vulnerable countries with the highest number of people living in poverty. (IDCF Report, 2014). The author argues that this provides an



underlying case for a 'Low Funding Trap' which creates a new issue of climate justice. It also improves the robustness of the data set by considering a longer timeline. This provides a quantitative corroboration to other arguments where the concept of a 'Climate Finance Curse' accompanying international cash inflows is discussed as being able to potentially create a 'resource curse' endowment. (Jakob & Steckel, 2014). It is additionally argued that it could result in poorer infrastructure outcomes through expensive low-carbon energy sources and increased energy prices leading to inequity. (Kornek et.al, 2017)

### **Foreign Aid and Rent Seeking**

The Author uses a simple game-theoretic rent seeking model to determine what the impacts of foreign aid are on the macro-economic outputs of the recipient nation. He finds that higher levels of foreign aid are associated with more rent seeking and corruption and lesser public spending. Foreign aid can serve as a major source of revenue, especially in poorly governed developing nations. The share of aid in central government expenditure in the assessed dataset of the 50 most aid dependent nations showed that it accounted for 53.8% (World Bank, 2008). This paper has important implications for climate finance as climate aid is expected to reach 14.5% of GDP for several sub-Saharan African nations in the next decade (Jakob et.al, 2014). Based on the findings of this paper it could lead to a 'climate finance curse' with increased levels of misgovernance impacting the populations that are generally most vulnerable to climate change within the social subgroups of the nation. Additionally, the model finds that corruption increases in nations with higher number of social subgroups which makes sub-Saharan nations particularly vulnerable to a potential curse. This article's findings support the suggested rationale behind donors' prioritizing governance in ensuring effectiveness in the review article but has implications in terms of allocation which are higher for better governed nations. Higher allocation based on perceived capacity to handle investment should not be allowed to reduce better governance practices in these nations. The outcomes of this paper are also well supported by literature that uses bureaucracy and corruption levels as proxies (Knack, 2001).

## Discussion

There are several other important outcomes in the literature that may prove important to studies in climate finance. It is found that the effectiveness of foreign aid in relation to levels of governance has different impacts for different sectors (Akramov, 2006). Better governance levels result in better effectiveness of aid for economic infrastructure but not for production which responds to lower levels of governance. The potential for an effective application model for Adaptation Aid needs to be discussed in terms of aid distributed to nations with varying levels of governance and in the larger interests of distributive justice. It was also found that in climate technologies' adoption by developing nations, high cost of project lowered adoption and capacity building, while increased project duration improved odds of adoption (Haque, 2002). This shows that donor commitment to long duration aid may have significant implications for scale up of climate adaptation especially where technological innovations are considered.

The important determinants of climate aid and their potential shortcomings and outcomes are discussed in this review. Recipients' Need, Donor Incentives' and Recipients' Merit are all considered as significant predictors, but the latter does not seem to be statistically significant in recent years (Weiler, 2020). This implies that the strategies that determine climate finance are rapidly being reassessed which is not unusual for a global issue that needs continuous evaluation. The conclusions derived by the paper possess inherent tensions and have important implications for realigning climate finance flows in the future. General Development aid is shown to be the most significant predictor of climate aid and as such the authors conclude that climate aid closely follows development aid flows and ties although they state that climate aid is significantly different because of its strategic objectives which are oriented towards vulnerability. But on the other hand, the empirical analysis also finds that the donor interests are much more weakly significant than in general development aid. Development Aid generally follows donor incentives. This potentially relates to an imperfect collinearity between the independent variables of

development aid and donor interests' and could also reflect endogeneity. Additionally, a scenario model should be developed where measures of physical vulnerability such as the CRI, ND-GAIN Index, SVCCI as independent variables are removed accounting for a selection bias in the target population. Additionally, they are most likely to be correlated. Climate Aid is specifically designed to aid vulnerable nations and the causal logic follows that non-vulnerable nations will not receive aid. The magnitude of vulnerability is already captured in the dummies introduced.

Based on the review articles, the two stage Rio Marker self-reporting system from the OECD is insufficient in analyzing the climate dimension of aid as it allows for the spurious introduction of Donor bias. The review article discusses this issue and attempts corrections in its modeling, and the shortcomings are highlighted in the Bangladesh Study. Better data organization and indicators need to be derived and tested that allow researchers and donors to monitor the use of aid, specifically in the context of actual usage. For instance, risk-based frameworks are increasingly used by cities to monitor the impact of adaptation projects (Murieta. Et.al, 2021). Monitoring Aid Allocation within recipients is critical as adaptation and mitigation are strategically different issues and the former requires more precise, place-oriented interventions. As evidenced in the case of the Pacific Islands, Adaptation Aid could result in less strategic sectoral interventions targeted at vulnerable populations raising questions of distributive impacts and climate justice. Different strategic objectives should also promote an exploration of specific responses. The stipulation of Project-based Aid as opposed to Budget-Support Aid which is better suited for mitigation must be explored. Conditionality in Bilateral Aid Commitments can also be better suited for project-based adaptation aid and grants as it will be easier to assess, and its potential role needs to be investigated. Additionally, the negative externalities arising from high aid inflow discussed in this essay presents a continually vexing problem to foreign aid effectiveness and the increased distribution of climate finance in the coming decades may create a similar issue in future.

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The Journal Impact Factor and Citation Count as well as Relevance of Topic were considered.

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