

THE GEOGRAPHY OF "GENEROSITY" IN DISASTER EMERGENCY AID, 2000-2007

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Abstract:

The United Nations' ReliefWeb document *Humanitarian Aid 2007* references the value of a donor country's donations (as a percentage of GDP) as a surrogate measure for a state's "generosity" toward global relief efforts. Though the report illuminates numerous important international trends in humanitarian aid, when viewed through the lens of regional geography, additional relationships emerge. Data covering the quantity of humanitarian donations in response to quick-onset disasters (primarily triggered by geophysical events) for the period 2000-2007 were collected via the United Nations Financial Tracking Service (FTS). These data are analyzed to explore spatial trends in donor and recipient nations as individual entries and conceptualized as a series of state linkages. Global patterns of emergency humanitarian aid and government-to-government linkages for the time period are discussed. Within the linkage data, three primary types of government-to-government emergency humanitarian aid exchanges are presents: 1) Globalized - transactions between the most developed economies (largest average donors) and any disaster-stricken community (particularly less developed economies). These transactions are generally less bound by regional geographic ties and are presumably more a reflection of globalization of economy. 2) Regionalized - transactions are focused on providing assistance to regional partners in need. This pattern is particularly pronounced in Latin America and Southeast Asia where cultural affiliations and regional economic linkages are important characteristics of these burgeoning economies. And 3) Targeted - a donor state's transactions, at least during this time period, reflect neither a global nor a regional pattern. The presence of cultural, political, and/or economic bias in humanitarian aid distribution is well documented in the humanitarian aid literature and numerous efforts toward mitigating the impact of those influences on the patterns of giving have been promoted by the UN and various other state affiliation and NGO groups. Although this baseline assessment of the spatial patterns of the FTS dataset alone cannot explain the myriad influences within the *process* of aid exchanges, illustrating the geography of donor-recipient relationships provides additional insight into the *outcomes* of these exchanges and offers another method for analyzing the patterns and trends of international emergency humanitarian aid.

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Introduction

From 2000 to 2007 more than fifty billion dollars (USD) were donated, received, and employed for humanitarian assistance and emergency response globally (United Nations 2007). The United Nations (UN) tracks these expenditures, their character, sources, and destinations via publically available databases; particularly through ReliefWeb.org and the Financial Tracking Service (FTS) database. Examination of the donor and recipient-nations lists during this time period indicates that almost every country has been involved in at least one of these exchanges. There are 118 donor nations and 121 recipient nations involved in emergency aid exchanges during this time period. This array of donor-recipient relationships varies geographically. In one sense, this variation results primarily from the patterns of hazardous events that focus human disaster. For example, the December 2004 impacts from the Indian Ocean tsunami demonstrates how the physical landscape and human patterns of development magnified a "natural" disaster and focused the flow of humanitarian aid into the region. But there are other factors, and other explanations for the patterns of aid. Many of these causes (political, economic, and cultural) have been discussed in previous research (Tan-Mullins 2007, Graves & Wheeler 2006, Walker 2005) and have prompted numerous institutional efforts to more equitably distribute aid while still allowing for individual states to direct their assistance and humanitarian acts. The geographic patterns of donor-recipient relationships alone cannot explain the nuanced process of aid acquisition, management, and distribution. However one way to illustrate the result of these biases in state giving behavior is to examine their spatial outcomes. Examination of these patterns, or outcomes, can offer additional insight into the effect of the biases pointed out in previous literature on the subject.

On the recipient side, efforts toward a more equitable and unfettered flow of humanitarian aid around the globe should manifest over time in changing patterns of aid distribution - more aid should flow to more states from more donors over time. On the donor side, these same efforts should begin to generate a more diverse pattern of linkages between donor states and recipient states - more aid should flow from more donors to more recipients over time. In general, increasing equity in giving should manifest changes in the geography of humanitarian aid, specifically in the spatial linkages between donors and recipients. The purpose of this paper is to describe and explain the global patterns of international emergency aid from the period 2000-2007. This assessment of the geography of recent humanitarian aid will offer insight into one previously unexplored dimension of aid as well as a baseline from which future patterns can be compared. Two trends in humanitarian aid that have been observed in recent years are the increasing number of NGOs working in this arena (IFRCRCS 1994) and an overall increase in the amount of aid being distributed directly by governments (GHDI 2003). In this paper we focus on the latter trend and consider only government-to-government aid distribution exclusively in response to natural disasters; this subset of the FTS data was chosen to minimize the influence of intermediary agencies on spatial patterns and to avoid over-simplifying the complex monetary flows associated with NGO activity and long-term developmental aid programs.

The geography of donor-recipient relationships (or aid linkages) is influenced by political and economic contexts beyond the "simple" connection between people in-need and people with the ability to help. This is particularly true for large donor nations which have complex geopolitical agenda (Drury et al. 2005). Recognition of these influences by humanitarian aid agencies and donor states has prompted an array of programs and agreements such as the Code Conduct (IFRCRCS 1994) which provides a set of core principles for NGOs to adopt in disaster relief activities, the Sphere Project (IFRCRCS 1997) which outlines the rights of recipient populations and the necessity for donor organizations to respect those rights, and the Good Humanitarian Donorship initiative (GDHI 2003) which provides a number of organizing principles for humanitarian relief organizations, including principals and best practices tailored specifically for government-to-government exchanges. Taken in total, these programs aim to standardize the activities of donor groups who provide

humanitarian aid and support, and to mitigate the influence of political and economic agendas from humanitarian aid activities (Graves and Wheeler 2006).

Patterns of international donation have also been described through the ratio of a state's gross domestic product and aid expended. Many countries provide aid, but some dig deeper into their pockets when doing so. This approach provides one measure "generosity" among donor nations (United Nations 2007). But if generosity is implied at all, there are other dimensions of international assistance that must be included: frequency of assistance, types of aid offered, and (the geographical dimension) destination of assistance. How geographically diverse are donations? Are donations entirely need or impact driven, or are donors' preferences for certain regions, places, or types of events tacit in the pattern? Assuming geographic preferences exist, are the preferences differentially expressed? How have these patterns changed over time? Here, we examine the spatial distribution of government-to-government humanitarian aid exchanges to illustrate the global patterns of donor-recipient linkages. "Linkage" is used herein to mean a single instance of direct interaction (aid exchange) between two governments.

The Geography of Humanitarian Aid

Little has been written on global geographic patterns of humanitarian aid. Humanitarian aid and disaster response research described by the keywords "geography," and "mapping," or "cartography" has tended to focus on the use of geographic technologies (like geographic information systems (GIS)) for response, relief, and impact assessments (Kaiser et al. 2003, Mustafa 2003, Mubaraka et al. 2005, Kelmelis et al. 2006, Liu et al. 2007, Lee 2007, Doocy et al. 2007). Hazard mapping techniques have been improved by the proliferation of both GIS and global and regional digital data sources (Sanyal and Lu 2006). These contributions are of great value when using geographic information technologies to improve emergency management and humanitarian efforts and they illustrate that this subject is inherently geographic. But beyond the collection, management, and visualization of geographic data, they do little to illuminate the overall global patterns of international humanitarian aid.

Some research depicts a more subtle recognition of the spatial structures of humanitarianism. Minear (2002) and Stephenson (2005) have written on social network characteristics of humanitarian aid organizations. They have highlighted how the nested spatial hierarchies of donor organizations and recipient groups can thwart trust and efficacy between those organizations. Their view is not spatial, but the implication of their critique, that coordination among aid entities is encumbered by their "multilayered" status and complicated because they involve "the orchestration of relationships not only at headquarters but also at the regional, national, and field levels" (Minear 2002, 20), is saturated with geography. Tacit treatments of spatiality also appear in research into the political economy of aid distributions, but their foci are not the roles of spatial relationships, but rather either on the manifestation of globalized political economies in specific locations, regions, and/or in aid distribution events (O'Dempsey and Munslow 2006, Carter 2007, Tan-Mullins et al. 2007, Jeffrey 2007), or on the role played by aid distribution in enhancement or attenuation of local or regional development (Mustafa 2004, Shearer and Pickup 2007, Walker et al. 2005). Aguilar and Morgera (2007) have indicated that the UN initiatives to streamline their own management system are intended to "consolidate[e] all UN programme activities at the country level" (274) implying that there is an optimal geographic scale for the management and distribution of humanitarian aid. These views indicate two things: there is a growing awareness of the roles of place and spatial structure in the management of humanitarian aid and there continues to be a lacuna of research that adequately informs humanitarian aid decision-makers as to those emerging roles.

Data and Methodology

Data for this analysis were derived from the United Nations' Financial Tracking Service (FTS), which provides public access to international humanitarian aid data for the period 1999-2008. These data represent the most up-to-date, publically available information on the specifics of humanitarian aid, including both acute disaster/emergency aid and long-term development aid. For the purposes of this analysis, we focus only on those exchanges of aid in response to unforeseen, rapid-onset disasters. Similarly, humanitarian response to political crises and military actions were set aside, as they would represent expenditures that may be overtly biased and targeted at specific recipient groups. Further, we limited our scope to government-to-government exchanges, as NGOs and supranational organizations (by design) operate under a different set of funding influences and decision-making environments than do most individual governments. Future research should focus on the geography of NGO humanitarian aid as a distinct phenomenon with distinct geographic implications. The data were reorganized to reflect nominal linkages between countries involved in aid exchanges and the number of times the pairings occurred over the study period. Donor countries often report more than one expenditure record per event (this is usually a result of either accounting procedures or because of additional, non-cash, in-kind donations). Multiple donations for a single event were regarded as a single pairing in order to count the number of linkages between nations. In this way, the focus is on the frequency of government-to-government exchanges, not on volume or type of aid. The pairings were tabulated, mapped, and a generalized topology of the geographic patterns was developed.

Results

Overall there were 1,948 government-to-government emergency aid linkages during the period 2000 to 2007. There are 118 donor governments (Figure 1) and 121 recipient governments (Figure 2) designated during the study period. It is important to note the many of the remaining states may well have participated in humanitarian aid programs focused through NGOs or on long-term developmental projects, but did not engage in direct government-to-government exchanges or did not make donations to emergency events during this time. It is also interesting to note that 68 states appear on both maps, having served as both donor and recipient in separate events (Table 1). Many of these countries are rapidly developing, politically dynamic states that often find their emerging infrastructure and emergency response systems overwhelmed by environmental disasters, but are also in position to respond the needs of other states when they themselves are not otherwise affected. Participation in this group might be viewed as another type of generosity within international aid networks.

Table 1. States Serving as Both Donor and Recipient During Time Period

Afghanistan	Colombia	India	Pakistan	Syria
Algeria	Cook Is.	Indonesia	Panama	Tajikistan
Angola	Costa Rica	Iran	Papua New Guinea	Thailand
Argentina	Cuba	Ireland	Peru	Turkey
Australia	Czech Republic	Kyrgyzstan	Philippines	Ukraine
Azerbaijan	Dominican Republic	Laos	Poland	Venezuela
Bangladesh	Ecuador	Malawi	Portugal	Vietnam
Belarus	El Salvador	Malaysia	Romania	Zambia
Bolivia	Eritrea	Mexico	Russia	
Botswana	Fiji	Moldova	Rwanda	
Brazil	Ghana	Morocco	Slovakia	
Bulgaria	Greece	Nepal	South Korea	
Burundi	Guatemala	Nicaragua	Sri Lanka	
Chile	Honduras	North Korea	Sudan	
China	Hungary	Oman	Switzerland	

The donor map is highly influenced by patterns of relative economic development with the largest and most frequent donors generally being those states who host the most robust contemporary economies. However it is important to note that this is not an illustration of which states gave the most, but rather which states gave the most often. It is well documented that states such as Germany, France, the UK, Japan, Saudi Arabia, and United States are large donors, but it is interesting to note that a great many

of the emerging, or developing, economies are frequent donors and a number of the less developed and/or specialized economies (most of which are recipients during this time as well) also engaged in aid exchanges with other governments. The patterns illustrated in the recipient map are obviously influenced by the occurrence of disasters during this time. Peru, for instance, was heavily impacted by floods, snowstorms, and earthquakes during this period. Algeria was heavily impacted by floods and earthquakes and the widespread impacts of the 2004 Indian Ocean tsunami are clear on the map as well. However, numerous other countries experienced at least as many damaging events during this time period, but did not garner as many linkages with donor states. The reasons behind that pattern cannot be discerned from the visualization alone, but the map presents a platform from which that analysis could be pursued. When the linkages are considered in total, three distinct geographic groupings of donor states emerge: globalized, regionalized, and targeted.

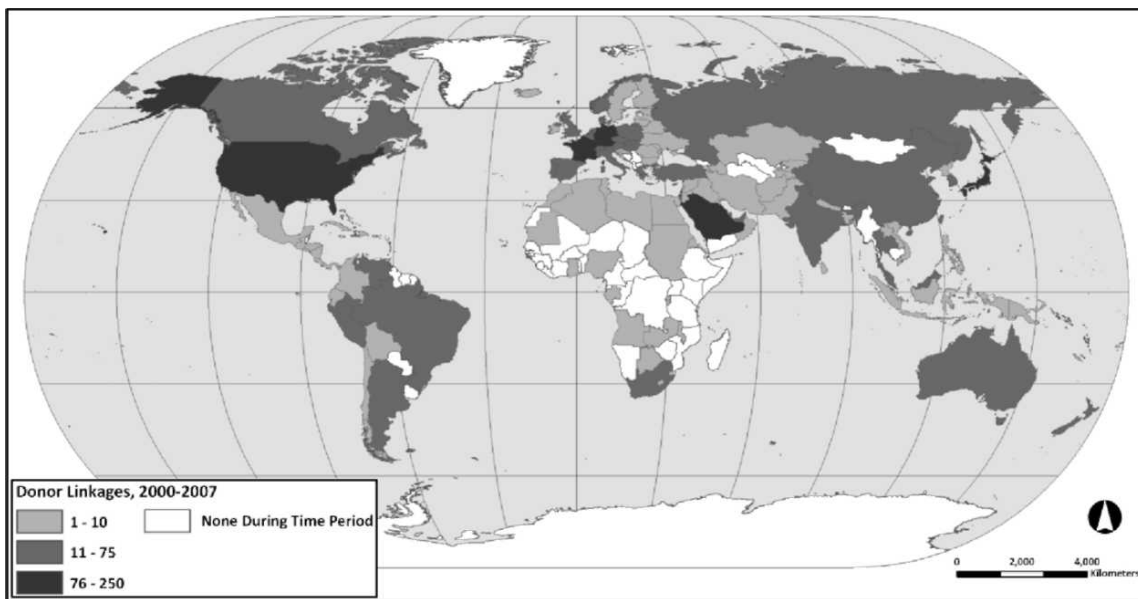


Figure 1. Donor State Linkages

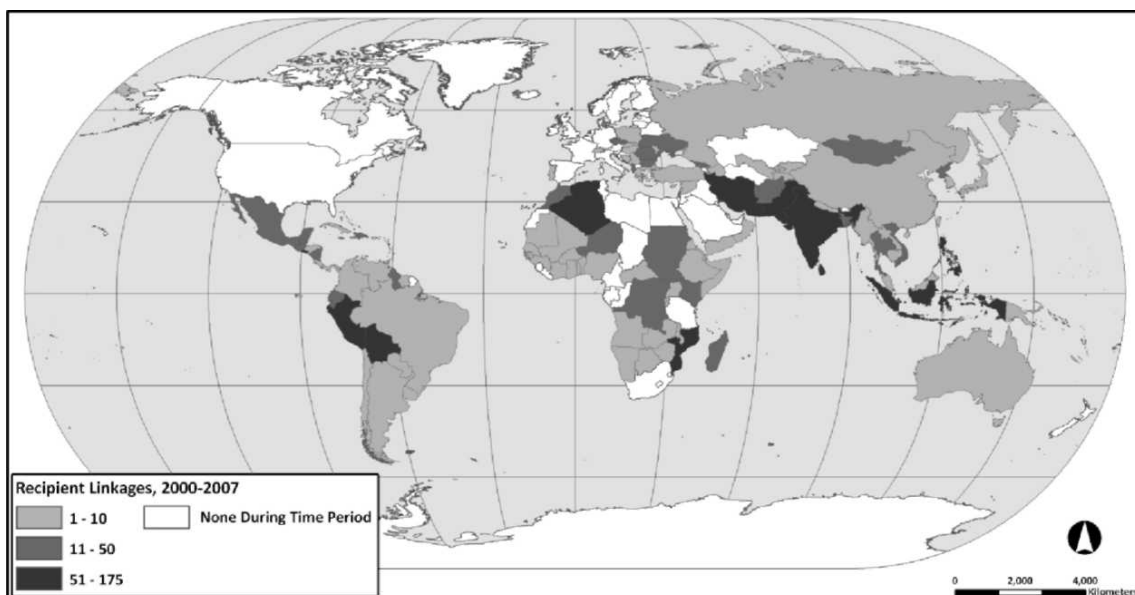


Figure 2. Recipient State Linkages

A number of donor countries, mainly those whose economies and humanitarian donations tend to exceed fellow donors, donate globally. These states frequently respond beyond their region and demonstrate no consistent geographic patterns to their "generosity." This group primarily includes the most developed economies of the world, particularly in Europe and North America: the United States, Canada, France, Japan, and Germany. These donors lead the global economy, have more humanitarian capital to expend, and have established political and cultural relationships with the countries to which they are "linked." There are, however, interesting exceptions to that general rule

Although most donors in this category tend to be large highly-developed economies, a few smaller countries follow similar aid-distribution patterns. Cyprus, for instance, provided aid to fourteen countries around the world. The explanation for this pattern is not apparent in these data, but we assume that the Cypriot government was not otherwise limited in selecting aid recipients during this time period. Their donations were not regionally limited nor do they seem to be focused by social, political, cultural or economic connections or type of disaster event. Inversely, there are more developed economies that did not distribute aid globally during this time period. Australia, for instance tended to focus its humanitarian assistance within its own part of the world. In fact, most of its donations went to adjacent neighbors in Southeast Asia and the southern Pacific. Even following the December 2004 tsunami, where nearly every country with a coastline along the Indian Ocean received aid, Australia focused its aid among the smaller island states in its vicinity.

A number of countries, including both large and small donors, exhibit a clear regional preference in their linkages. India, for instance, is a sizable contributor to emergency financial aid overall but has tended to limit donations to recipient governments in its own region. This pattern may be partly explained by the 2004 tsunami (in which India was itself a recipient government), but the pattern existed prior to 2005 and has persisted. Detailed explanations for this pattern are not within these data, but the pattern is clear and may, more explicitly, reflect social, political, economic, or cultural linkages between states. For example: Botswana established linkages from four events, each time with Mozambique. Indonesia also had four linkages, three with the Philippines and one with Pakistan. The Cook Islands have two linkages during this time period, one with Fiji and the other with the Solomon Islands. The most compelling example of regionally focused aid linkages can be found among Latin American governments. Nearly every government in the Caribbean, Central America, and South America made aid donations during this time period. With few exceptions, donations went to another Latin American state. Table 2 lists the five Latin American countries with the most government-to-government linkages during this time period and the countries they aided. Another measure of this relationship is the fact that 25% of the states that are on both the donor and recipient list are Latin America countries. This is clearly what hazard researchers might call a "therapeutic community" (Dynes and Quarantelli 1980) manifest at a regional scale. This phenomenon also deserves additional examination in future research.

Table 2. Selected Latin American Donors and Recipients for Time Period

<u>Brazil</u>	<u>Venezuela</u>	<u>Argentina</u>	<u>Mexico</u>	<u>Peru</u>
Bolivia	Bolivia	Bolivia	Bolivia	Bolivia
Dominican Republic	Dominican Republic	Dominican Republic	El Salvador	Ecuador
Ecuador	Ecuador	Ecuador	Honduras	El Salvador
El Salvador	El Salvador	El Salvador	Jamaica	Mexico
Guyana	Grenada	Guatemala	Pakistan	
Haiti	Guyana	Haiti	Peru	
Mozambique	Haiti	Indonesia		
Nicaragua	Jamaica	Iran (Islamic Republic of)		
Pakistan	Peru	Peru		
Peru	Suriname	Uruguay		
Suriname				
Thailand				

The final grouping of donor-recipient linkages is not as simple or as clear, but a pattern is observable. For a few donor nations, aid distribution seems unconstrained by regional affiliations but is also not globally distributed. For convenience, these are referred to here as "targeted" linkage donors. Two of the more compelling examples in this group, primarily because they are substantial donors with many linkages, are Russia and Saudi Arabia.

Russia's donor-recipient linkages included adjacent countries, such as Mongolia and Ukraine, numerous Southeast, Central and South Asian, African states, and, in at least one instance, a Latin American state. Though this might be interpreted as a global pattern, Russia did not provide aid in a number of large-scale disaster events that were addressed by the donors represented in the global-linkage category. Similarly, Saudi Arabia made linkage choices that do not reflect regional or global patterns. The Saudi government often extended humanitarian aid to its Central and Southwest Asian neighbors, but it also established many linkages with Southeast Asia, Africa, and, to a lesser degree, Latin America. The linkages in Africa are most easily explained, in that they are focused almost exclusively in the cultural or economic affiliations among countries of North and East Africa. These may not be the only factors driving Saudi Arabia's decision-making, but the pattern is apparent among their benefactors.

Conclusions

Globally, well over 60% of governments participated in direct government-to-government aid exchanges during this time period. Over 30% served in the capacity of both donor and recipient; a pattern which is most clearly expressed in the Latin America during this time period. Among the donor nations with five or more linkages during the study period, three distinct geographic groups of states appeared: globalized, regionalized, and targeted. Globalized linkages represent donor-recipient relationships that reflect either global economic structures or an apparent donor preference to disperse aid more widely around the world. Regionalized linkages are display a clear donor preference to provide aid primary to neighboring states. State-to-state aid linkage relationships that are apparently not tied to either a region or a global distribution pattern are characterized here as targeted linkages. Though difficult to discern at this level of analysis, these donor states appear to express some degree of political, cultural, social, or economic bias in the countries to which they choose to extend disaster aid. There is a need for continued evaluation of the statistical data associated with both the aid distributions and the demographic, political, and economic profiles of the donor and recipient states. The reader should also be reminded that the focus of this paper has been only direct government-to-government aid in response to unforeseen, rapid-onset disasters. Similar investigations into state and NGO linkages as well as global flows of aid funding for long-term developmental programs are merited as well.

The distribution and management of humanitarian aid is its own global industry and although it is perhaps unique among worldwide economic flows, assistance is not unaffected by competition, cultural and political prejudice, and mismanagement. These influences are being addressed in many international initiatives aimed at helping humanitarian actors to become more equitable in their deeds. In theory, humanitarian aid should be distributed fairly, consistently, and without biases toward the populations in need. In practice however, politics, economics, and geography matter. Even the most altruistic efforts can be affected by these pressures. Understanding the linkages between governments involved in these exchanges and examining their geographic patterns over time offers international emergency humanitarian aid managers a tool for gaining insight into the outcomes of a particular disaster or the future effects of new programs. It also illuminates other possible conceptualizations of "generosity" within the context of global humanitarian aid.

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