



Aid Fragmentation and Development Outcomes in Sub-Saharan African Countries

Sessinou Erick Abel Dedehouanou

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Abstract

This study examined the fragmentation of official development assistance (ODA) in Sub-Saharan African countries and the role played by development outcomes. Initially, it analyzed the fragmentation of aid over the period 2000 to 2019 using the Theil index. On the donor side, it appears that fragmentation of aid from bilateral Development Assistance Committee (DAC) donors and bilateral non-DAC donors has decreased significantly in recent years. In addition, the aid provided by bilateral DAC donors has been less fragmented than that given by non-DAC bilateral donors. Several traditional donors and so-called

emerging donors have contributed to the fragmentation of aid in Sub-Saharan African countries. As for aid recipients, the countries of Southern Africa or those belonging to the group of so-called fragile States have suffered less from aid fragmentation than their counterparts in Central, East, and West Africa and those belonging to the group of non-fragile States. We used an instrumental variables method and a panel quantile regression with non-additive fixed effect to assess the effect of the development factors on aid fragmentation. The results obtained validated that the fragmentation of aid can be reduced by better coordination of aid at the sectoral level and above all by internal development factors (structural transformation policies and equity in the use of resources). Indeed, no solution to the fragmentation of aid is possible without the implementation of structural policies to achieve a level of development capable of coordinating the action of donors and equity in the use of resources allowing the satisfaction of the needs of various social groups.

Introduction

With increasing numbers of donors, aid instruments, and persisting poverty in recipient countries, aid effectiveness has been controversial for decades. Economic thinking first sought to identify the macroeconomic conditions of recipient countries for which aid would be effective. This approach was proposed by Burnside and Dollar (2000), who affirmed that aid was effective in countries with good economic policies, which was translated by the mastery of inflation, fiscal balance, and trade policies. Since the work of Burnside and Dollar (2000), the debate on aid effectiveness and selectivity has been important, paving way for the application of a selective allocation of international aid based on the criteria of economic and institutional performances.

Authors like Berg (2003) have highlighted the behaviour of donors to increase aid effectiveness, rather than selectivity. These authors have assumed that the problem of aid effectiveness lies upstream in the allocation of this aid. In fact, the inadequate allocation of international aid means that some developing countries receive less aid than expected (countries so-called “orphan” of aid), while other countries record aid volumes that exceed their aid level expectations (countries so-called “darlings” of aid). This mode of operation, which results from increase in the number of donors, or the proliferation of activities financed by them (Deutscher and Fyson, 2008) leads to the fragmentation of aid in the beneficiary countries (Nadoll and Hussain, 2008; Chen, 2010; Kihara, 2012; Furukawa, 2016) and imposes transaction costs (numerous documents and reports to provide for each donor).

The fragmentation of aid is the provision of aid in relatively small quantities to one country by several donors (Acharya *et al.*, 2006; Deutscher and Fyson, 2008; OECD, 2009). The consequences of fragmentation of aid have been widely reported in the literature. For instance, several authors have shown a negative effect of aid

fragmentation on economic growth (Kimura *et al.*, 2007), the quality of institutions (Knack and Rahman, 2007), and the development level of beneficiary countries (Djankov *et al.*, 2008). In addition, greater donor specialization in the distribution of aid has been associated with reduced transaction costs (Anderson, 2012) and thus less fragmentation of aid.

The literature also highlights the positive effects of aid fragmentation. For example, donor concentration in an aid-recipient country may expose the latter to frequent aid shocks compared to an aid-recipient country with a fragmented donor structure. Some positive effects of aid fragmentation on the risk of political destabilization in fragile States have also been reported by some authors (Gutting and Steinwand, 2015). In addition, the way aid is delivered matters for aid fragmentation. Indeed, aid fragmentation occurs when donors tend to provide aid in the form of projects rather than through budget support. In the case of budget support, the number of donors does not matter, although there are possible transaction costs associated with, for example, specific donor requirements (Dreher and Michaelowa, 2010).

In general, the fragmentation of aid creates high overhead costs for donors and recipients (Easterly and Pfutze, 2008), which justifies the commitment of the international community to better align policies, procedures, and practices. In concrete terms, it was the role of donors to pool resources or to designate the most experienced donor country in the sector as a leader in channeling aid (OECD, 2009). However, despite these good intentions, the coordination and division of labour are still limited (Thiele *et al.*, 2007; Schulpen and Habraken, 2016).

The present study seeks to analyze the fragmentation of aid in sub-Saharan African countries and expose the factors of reduction of the fragmentation of aid in this region. The motivation for this study is twofold. First, while several studies have focused on the fragmentation of aid in developing countries, little is known about Sub-Saharan African countries. To our knowledge, only the work of O'Connell and Soludo (2001), Buscaglia and Garg (2016), and Fløgstad and Hagen (2017) tell us that development aid is more fragmented in Africa, more particularly in Sub-Saharan Africa, than other parts of the world. In this study, we provide a recent and complete picture, allowing detailed comparisons of the fragmentation of aid in the Sub-Saharan Africa region. We group the aid recipient countries of Sub-Saharan Africa by categories (region and fragility) likely to guide the choice of donors in the provision of aid to this region. We also distinguish among public donors, bilateral donors, whether members of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) or not, and multilateral donors. The latter face a different situation: most are obliged to implement aid programmes in a wide range of poor countries. While fragmentation is supposed to be limited for most multilaterals due to their restrictive mandates in terms of geography or sector, their overall contribution is interesting, especially considering the growing number of these actors.

Secondly, the changes in the international aid framework with the growing presence of “emerging donors” (such as China, Russia, and Turkey) in recent years have been likely to lead to inappropriate allocation of development aid in Sub-Saharan African countries. Indeed, the allocation choices made by bilateral donors are largely voluntary. The Development Assistance Committee (DAC) of the OECD, nevertheless, has established many international decisions on best aid practices. OECD-DAC member countries have been required to implement the recommendations adopted by the OECD-DAC since its inception and provide the required statistics on their official development assistance (ODA), which is not the case for “emerging donors.” Therefore, including aid from emerging donors appears relevant for the study of aid fragmentation in Sub-Saharan Africa. In this study, we reinvestigate the analysis of aid fragmentation in sub-Saharan Africa by considering traditional DAC donors and emerging donors. These elements allow us to capture the full extent of the fragmentation of aid in sub-Saharan African countries and to know which types of bilateral donors are more responsible for the fragmentation of aid in this region.

Thirdly, if the aid is useful for sub-Saharan African countries, reduction of the fragmentation of aid, given its negative consequences, must be in order. Generally, to respond to the problems of aid fragmentation, coordination between donors is often mentioned in the literature. However, to coordinate donor action, recipient countries must have certain capacities. Indeed, according to the Accra Agenda for Action, without a given level of resilience, aid recipient countries cannot fully own and manage their own development processes. In general, a country's level of resilience can be approached, among other things, by the level of development and the quality of institutions. We hypothesize that these factors can ensure development and make beneficiary countries such as those in Sub-Saharan Africa capable of channeling and managing aid resources (control of the process of coordination or division of labour, among donors) by avoiding the multiplication of transaction costs resulting from the fragmentation of aid.

Empirically, little is known about the determinants of aid fragmentation in Sub-Saharan Africa. To our knowledge, the latest studies on this subject are those of Pfutze (2010). From the analysis of a correlation coefficient between the aid fragmentation index and national income per capita, the author verified that higher income levels are strongly associated with lower fragmentation. We added to the work of Pfutze (2010) by providing the econometric evidence of the likely reasons for aid fragmentation in Sub-Saharan African countries. From a political context perspective, our findings have critical implications for the political debate on how to reduce the fragmentation of donor aid in this region.

The results highlighted the fact that the aid provided by bilateral DAC donors has been less fragmented than that given by non-DAC bilateral donors, due to some so-called emerging donors. In addition, the countries of Southern Africa or those belonging to

the group of so-called fragile States have suffered less from aid fragmentation than their counterparts in Central, East, and West Africa and those belonging to the group of non-fragile states. This fragmentation of aid can be reduced by better coordination of aid of donors and by internal development factors in the beneficiary countries.

Stylized facts about official development assistance in sub-Saharan Africa

Figure 1 shows the dynamics of Official Development Assistance (ODA) provided by donors in all the regions of the world. The OECD defines Official development assistance as assistance: i) *provided by official agencies, including State and local governments, or by their executive agencies; and ii) having concessional character and provided with the promotion of the economic development and welfare of developing countries*. Given the gross aid disbursements (in millions of constant United States dollars), Sub-Saharan Africa has received the most aid from public donors in recent years, followed by South and Central Asia. Although the increase in the volume of aid received by these two regions of the world may be due to the number of countries that make up the region groups, Figure 1 gives an idea of the direction of the volume of the overall aid to an international scale. The level of donor engagement is high in Sub-Saharan Africa, which could be because Sub-Saharan Africa is among the regions of the world that have experienced less development in recent years despite record levels of growth. Most of the least developed or low-income countries are in this region.

Figure 1: Official development assistance provided by public donors over the period 2010 to 2019 (millions of constant United States – US- dollars)

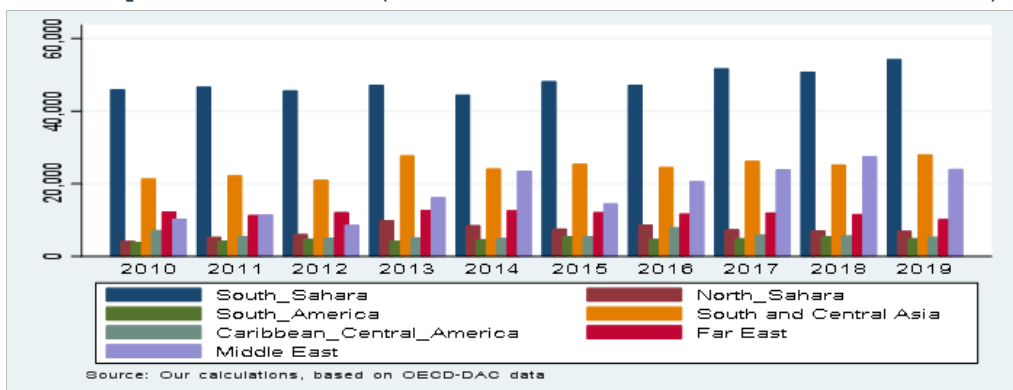
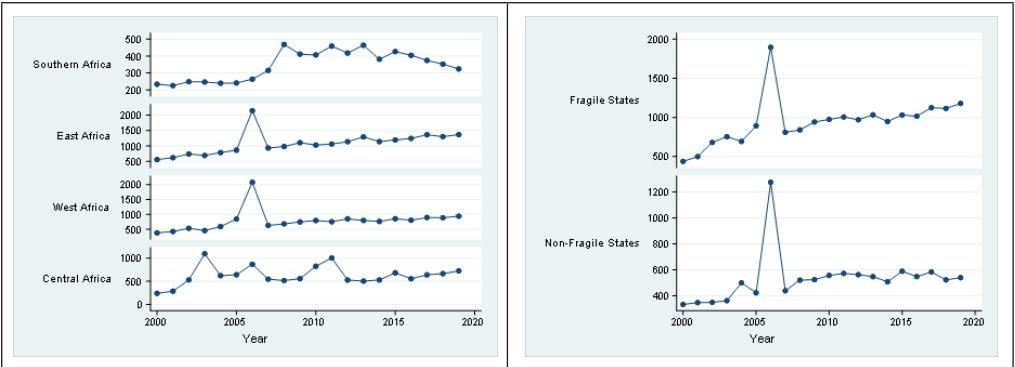


Figure 2 shows the average aid received by the Sub-Saharan Africa region and by the type of State, depending on whether the situation is fragile or not. A relatively upward trend in official development assistance can be noted in all the regions of Sub-Saharan Africa, except for Central African States. Over the period 2000–2019, Southern Africa was the sub-region that received the least aid.

By contrast, the States of East and West Africa have received, on average, more aid than the other sub-regions, and these large aid flows can be explained by several factors. For instance, some countries of this sub-region, which are in the Sahelian zone, are faced with the dual challenges of security (presence of armed terrorist groups) and development in the Sahel. This may justify the volume of aid received by this region. In addition, a peak in the volume of development aid to Sub-Saharan African countries can be noted in 2006. This increase is attributable to the debt relief concluded within the framework of the Paris Club in favour of certain countries such as Nigeria in 2005. Likewise, many donors have announced a significant increase in their ODA over the medium term (OECD, 2007b) from 2005.

Let us now consider the countries of sub-Saharan Africa according to the fragility of the States. The latter is an evolving concept that is used in different ways by agencies through multilateral development agencies. In this study, we used the classification of fragility as it appears in the OECD DAC database. Figure 2 shows that fragile States receive significantly more development assistance than non-fragile States. This situation is explained by the need for help to cope with socio-economic conditions.

Figure 2: Average official development assistance by recipient category from Sub-Saharan Africa over the period 2000 to 2019 (millions of constant US dollars)



Source: Our calculations, based on OECD-DAC data

Table 1 shows the share of the total aid provided by each type of donor to Sub-Saharan African State categories. The data used is that of the OECD-DAC. Globally, DAC donors dominate the development aid landscape in Sub-Saharan Africa. Of these, the United States and France are the largest aid contributors over the period 2000-2019. Apart from Central African countries that receive aid from France, which has historical links with most of these countries, all other regions do not necessarily receive aid from the donor country with the most colonies in the region. The presence of the United States as the main donor of development aid could be explained by its significant contribution to the global financing of development.

Table 1: Panorama of aid in Sub-Saharan African countries (2000–2019)

Country/Category	% of ODA by category of donor			Top donor			Donors with the most (former) colonies
	DAC	Multi-lateral	Non-DAC	DAC	Multi-lateral	Non-DAC	
Southern Africa	72.09	27.35	0.55	United States	European Union institutions	Kuwait	United Kingdom
East Africa	55.49	43.24	1.27	United States	World Bank Group	United Arab Emirates	United Kingdom
West Africa	50.75	48.34	0.91	United States	World Bank Group	Kuwait	France
Central Africa	59.89	39.93	0.19	France	World Bank Group	Kuwait	France
Fragile States	55.32	43.62	1.06	United States	World Bank Group	United Arab Emirates	France
Non-Fragile States	55.00	44.37	0.64	United States	World Bank Group	Kuwait	France

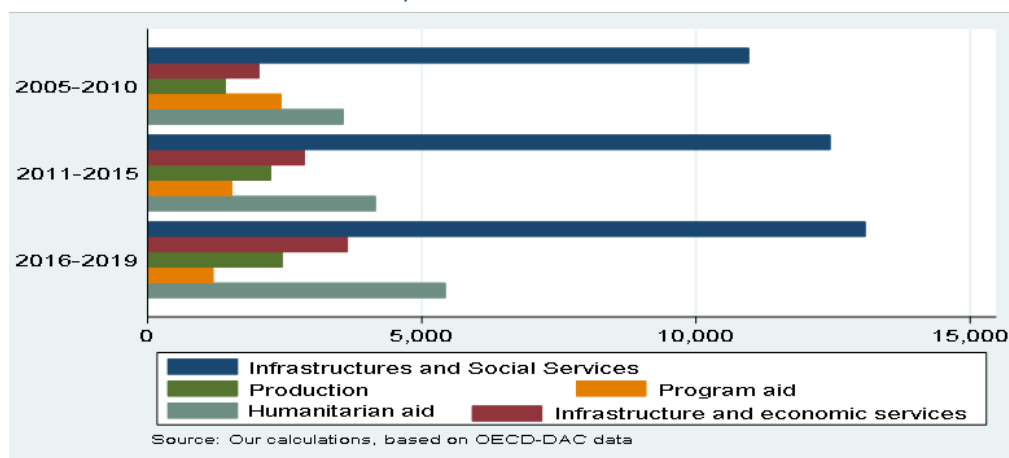
Source: Our calculations, based on OECD-DAC data

On the side of multilateral donors, the World Bank Group appears as the main donor of development aid before regional financial organizations. When it comes to non-DAC donors, Kuwait and the United Arab Emirates stand out from other donors. This dominance of Kuwait and the Arab Emirates in the provision of aid to sub-Saharan Africa countries remains consistent with the results of previous studies on the allocation of aid in the world. Sub-Saharan African countries are included in the category of countries likely to receive bilateral aid from Arabian countries because of African-Arab solidarity (Neumayer, 2003).

Let us now consider the sectoral composition of donor aid. For this purpose, we only considered all the bilateral donors of the DAC and their gross aid disbursement by sector given the availability of data for Sub-Saharan African countries, which come from the DAC-OECD database. According to the OECD, the sectoral distribution of bilateral ODA commitments refers to the economic sector of destination (of the beneficiary country), rather than to the type of goods or services provided. The DAC-OECD distinguishes several sectors. We selected the five main categories of sectors, namely: (i) *infrastructure and social services (education, water supply, and sanitation)*; (ii) *infrastructure and economic services (energy, transport, and communications)*; (iii) *production (agriculture, manufacturing industries, trade, and tourism)*; (iv) *programme aid (food aid)*, and (v) *humanitarian aid*.

Figure 3 illustrates that the sectoral composition of aid to sub-Saharan Africa has changed in recent years. Apart from humanitarian aid, which is unpredictable in nature, aid intended for infrastructure and social services and for infrastructure and economic services appears to be a priority for DAC donors over the period 2005–2019. The emphasis put by donors mainly on economic infrastructure could be justified by the need to increase the stock of capital necessary to achieve development objectives. Nonetheless, it is also evident that the sector priorities of donors have evolved in recent years.

Figure 3: Sectoral ODA from DAC countries in Sub-Saharan Africa (constant millions of US dollars)



Sources of data

In this study, we used a set of panel data covering sub-Saharan African countries over the period 2000–2019. Data on aid comes from the DAC database of the OECD. To consider the availability of data on Chinese aid that come from AIDDATA, the analysis of aid fragmentation including China covers the sub-period 2000–2013.

Data on constant GDP per capita and dependency ratio comes from the “World Development Indicators” database of the World Bank. The indices of equity in the use of public resources and the implementation of the structural policies considered are taken from the Country Policy and Institutional Assessment (CPIA) database of the World Bank.

Regarding the governance variables, we alternately used the government effectiveness, the control of corruption (Worldwide Governance Indicators — WGI), and political risk (International Country Risk Guide — ICRG). According to Kaufmann *et al.* (2010), Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service, the degree of its independence from political

pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Control of Corruption considers perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, and "capture" of the State by elites and private interests (Kaufmann *et al.*, 2010). The ICRG's political risk rating is assessed considering a range of components (Government Stability, Socioeconomic Conditions, Investment Profile, Internal Conflict, External Conflict, Corruption, Military in Politics, Religious Tensions, Law and Order, Ethnic Tensions, Democratic Accountability, Bureaucracy Quality) (The PRS Group, 2021).

The indicator of donor "gregarious behaviour" (Herding) that we employed in this study is similar to that of Frot and Santiso (2009) and Desai and Kharas (2010). This is the difference between the proportion of donors who have increased their aid to a country from one year to another and that of donors active in the same country. The OECD-DAC defines an active donor when the latter provides more than its average overall share of ODA or is one of the major donors who cumulatively provide more than 90% of ODA to a recipient country. In this study, we considered a donor active when it provides aid to a Sub-Saharan African country over a year that exceeds its average share of aid intended for the region.

The donor engagement indicator we used was the proportion of the recipient country's total aid that comes from a donor compared with the donor aid's share of global donor aid. This indicator makes it possible to highlight the commitment of a donor to certain recipient countries. Buscaglia and Garg (2016) asserted that it is not appropriate to make this judgment by simply looking at the amounts disbursed by individual donors, as this would lead to a bias towards smaller donors, hence the interest in relating the proportion of aid provided by a country to its overall share of aid in the world. Following Buscaglia and Garg (2016), we calculated at time t , the sum of these aid proportions for all donors in a recipient country that we divided by the total number of donors in the beneficiary country.

Conclusion and policy implications

In this study, we examined the fragmentation of aid provided by public donors to sub-Saharan Africa countries over the period 2000-2019. The results of the analysis of the Theil index of aid fragmentation validate that aid from multilateral donors appears to be more fragmented than that provided by other public donors (bilateral DAC donors or not). The fragmentation of aid from bilateral DAC donors and non-DAC donors has declined significantly in recent years, with aid from bilateral DAC donors having been, on average, less fragmented than non-DAC donors. This high fragmentation of aid from non-DAC donors is due to the behaviour of certain donors, including so-called emerging donors. Moreover, our results have confirmed that countries in southern Africa or

those belonging to the group of the so-called fragile States have suffered less from aid fragmentation, especially from bilateral DAC donors in recent years. Regarding fragile States, this observation suggests a strengthening of aid in these groups of countries without inducing transaction costs, a consequence of aid fragmentation.

Thereafter, using an instrumental variable method and a panel quantile regression with non-additive fixed effects, we provided empirical evidence on the determinants of aid fragmentation of bilateral DAC donors. A combination of factors characteristic of recipient countries and donor behaviour is responsible for the fragmentation of aid. Indeed, our results have verified that countries with a high level of GDP per capita and implement structural policies receive less fragmented aid. Thus, reducing aid fragmentation in Sub-Saharan African countries depends on the capacity of States to initiate an endogenous development process. This includes appropriate policies aimed at diversification or structural transformation of the economy and equity in the use of resources allowing the satisfaction of the needs of various social groups, especially the poor. Likewise, the control of demographic growth should help reduce the dependency ratio and the fragmentation of aid. All these factors relate to the internal transformation of Sub-Saharan economies.

Internal efforts are also necessary in governance, although our results have confirmed that improving governance performance leads to a strong fragmentation of aid in sub-Saharan Africa countries. This result should be put into perspective because good governance is necessary for the implementation of an endogenous economic and social development process, which makes it possible to reduce the transaction costs associated with the fragmentation of aid.

On the donor side, they should think better about how to respond to the presence of emerging donors in Sub-Saharan Africa without exacerbating the problem of aid fragmentation. Our results have further validated that a “herding behaviour” of the latter does not seem to translate into a high fragmentation of aid, and that an increase in their aid does not necessarily translate into fragmentation of aid. Therefore, an increase in aid to Sub-Saharan Africa region aimed at countering the influence of emerging donors should not translate into further fragmentation of aid. However, real development needs rather than geostrategic interests should drive the increase in aid.

More efforts in aid coordination at the sector level are still needed, as the more donors in the sectors increase, the more aid fragmentation increases. In a case study from Rwanda, Klingebiel *et al.* (2017) showed the importance of recipient country responsibility in donor aid coordination. Thus, sub-Saharan Africa countries should be responsible for monitoring additional funds to be allocated by donors, which should be intended to strengthen only those sectors where the donor already has a comparative advantage in terms of expertise (assuming that each active donor has a comparative advantage in a given sector). If the latter wanted to intervene in another sector, then another donor already active in this sector would represent it and would have a clear mandate to coordinate aid.

References

- Acharya, A., A. Teresa. F de Lima, and M. Moore (2006) “Proliferation and fragmentation: Transaction costs and value of aid”. *Journal of Development Studies*, 42(1): 1–21.
- Agrawal, S. 2007. Emerging donors in international development assistance: The India case. Ottawa: International Development Research Centre (IDRC).
- Anderson, E. 2012. “Aid fragmentation and donor transaction costs”. *Economics Letters*, 117: 799–802.
- Berg, E. 2003. « Augmenter l’efficacité de l’aide: une critique de quelques points de vue actuels ». *Revue d’économie du Développement*: Vol. 17. No. 4.
- Berthélemy, J.C. 2006. “Bilateral donors’ interest vs recipients’ development motives in aid allocation: Do all donors behave the same?” *Review of Development Economics*, 10(2): 179–194.
- Burnside, C., and D. Dollar. 2000. “Aid policies and growth”. *American Economic Review* 90(4): 847–868.
- Carcelli, S.P. 2019. The institutional foundations of foreign aid fragmentation. https://www.peio.me/wp-content/uploads/2019/01/PEIO12_Paper_58.pdf.
- Chen, Y. 2010. Case study of aid fragmentation in Indonesia, IAFF 222: Development policy and practice. Elliott School of International Affairs. The George Washington University.
- Commission des Nation Unies pour le Commerce et le Développement – CNUCED. 2007. Le développement économique en Afrique’, Retrouver une marge d’action : la mobilisation des ressources intérieures et l’Etat développementiste ». UNCTAD/ALDC/AFRICA/2007/1. ISBN 978-92-1-212343-1.
- Deutscher, E., and S. Fyson. 2008. Améliorer l’efficacité de l’aide’, finances and développement Septembre 2008. Vol. 45. No. 3.
- Dewald, M. and R. Weder. 1996. “Comparative advantage and bilateral foreign aid policy”. *World Development*, Vol. 24. No. 3: 549–556.
- Djankov, S.J., G. Montalvo and M. Reynol-Querol. 2008. “Aid with multiple personalities”. *Journal of Comparative Economics*, Vol. 37, Issue 2: 217–229.
- Easterly, W. and T. Pfütze. 2008. Where does the money go? Best and worst practices in foreign aid. Brookings Global Economy and Development. Working Paper 21.
- Fløgstad, C. and R. Hagen. 2017. “Aid dispersion: Measurement in principle and practice”. *World Development*, Vol. 97: 232–250. <https://doi.org/10.1016/j.worlddev.2017.04.022>.
- Frot, E. and J. Santiso. 2009. ‘Herding in aid allocation’. OECD Development Centre Working Papers 279. Paris: OECD.
- Frot, E. and J. Santiso. 2010. Crushed aid: Fragmentation in sectoral Aid. OECD Development Centre Working Paper No. 284. Paris: OECD.
- Furukawa, M. 2016. “Aid fragmentation and effectiveness for infant and child mortality and primary school completion”. In: Klingebiel S. Mahn T. Negre M. (eds), *The fragmentation of aid*. *Rethinking International Development Series*. London: Palgrave Macmillan.
- Gehring, K., Michaelowa, K., Dreher, A. and F. Spörri. 2017. “Aid fragmentation and effectiveness: What do we really know?” *World Development*, Vol. 99: 320–334. <https://doi.org/10.1016/j.worlddev.2017.05.019>.

- Gutting, R., and M. Steinwand. 2015. "Donor fragmentation, aid shocks and violent political conflict". *Journal of Conflict Resolution*, 1-28. DOI: 10.1177/0022002715595701.
- Kihara, T. 2012. Effective development aid: Selectivity. Proliferation and fragmentation, and the growth impact of development assistance. ADBI WP 342.
- Kimura, H., Sawada, Y., and Y. Mori. 2007. Aid proliferation and economic growth: A cross-country analysis. RIETI Discussion Paper Series 07-E-044.
- Klingebiel, S., Negre, M. and P. Morazán. 2017. "Costs, benefits and the political economy of aid coordination: The case of the European Union". *The European Journal of Development Research* 29: 144–159, <https://doi.org/10.1057/ejdr.2015.84>.
- Naim, M. 2007. "Rogue aid". *Foreign Policy*, 159 (March/April), 95–96.
- Neumayer, E. 2003. What factors determine the allocation of aid by Arab countries and multilateral agencies? LSEResearch Online. Available at: <http://eprints.lse.ac.uk/archive/00000615> Available online: February 2006.
- OECD. 2003. Rome Declaration on Harmonization: Harmonizing donor practices for effective aid delivery.
- OECD. 2005. Paris Declaration on Aid Effectiveness. Paris: OECD Publishing.
- OECD. 2008. The Accra Agenda for Action. Paris: OECD Publishing.
- OECD. 2007a. Efforts et politiques des membres du Comité d'aide au développement. Coopération pour le développement, Rapport 2006, Revue de l'OCDE sur le développement.
- OECD. 2007b. Enquête 2006 de suivi de la mise en œuvre de la Déclaration de Paris: Synthèse des résultats.
- OECD. 2009. Quel est le degré de fragmentation de l'aide ?, Revue de l'OCDE sur le développement 2009/1 (No. 10). p. 37-56. <https://www.cairn.info/revue-de-l-ocde-sur-le-developpement-2009-1-page-37.htm>.
- OECD. 2012. Efficacité de l'aide 2011: Progrès accomplis dans la mise en œuvre de la Déclaration de Paris. Paris : OECD Publishing.
- OECD. 2020. Multilateral Development Finance 2020. Paris: OECD Publishing. <https://doi.org/10.1787/e61fdf00-en>.
- O'Connell, S.A., and C. Soludo. 2001. "Aid intensity in Africa". *World Development*, 29 (9): 1527–1552.
- Reinsberg, B., Michaelowa, K. and V. Eichenauer. 2015. "The rise of multi-bi aid and the proliferation of trust funds". In: Arvin, B. Mak and Lew, Byron (eds). *Handbook on the economics of foreign aid*. Cheltenham: Edward Elgar Publishing, 527-554. DOI: <https://doi.org/10.4337/9781783474592>.
- Steinwand, M.C. 2015. "Compete or coordinate? Aid fragmentation and lead donorship". *International Organization*, 69(2): 443–472.
- Thiele, R., Nunnenkamp, P. and A. Dreher. 2007. Aid fragmentation and effectiveness: What do we really know? *World Development*, Vol. 99: 320–334.
- Trumbull, W.N. and H.J. Wall. 1994. "Estimating aid-allocation criteria with panel data". *The Economic Journal*, 876–882.
- World Bank. 2014. Introduction to poverty analysis. World Bank Working Paper No. 90288. Washington DC: World Bank.



Mission

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Nairobi 00200, Kenya
Tel: +254 (0) 20 273 4150
communications@ercafrica.org