Airplanes playground

# Showing Their Age: Examining Which Outcomes Aid Actors Prioritize

## Introduction

Infrastructure aid often constitutes the building blocks of larger aid projects with loftier goals. Aid geared towards democratization, the military, poverty reduction, health crises and economic development usually involves at least some aid earmarked for infrastructure repair and construction. This type of aid is understudied, but offers a simple and intuitive way to understand how actors distribute aid and what outcomes they prioritize.

While it can be hard to judge the success of more complex aid packages, infrastructure aid is often targeted as specific sectors that can be easily measured, such as travel and communications. For example, aid targeted at developing a nations telecommunications network can be judged through statistics regarding that nation’s improvement or lack there of in the number of people connected through phone and data lines. Similarly, aid aimed at airports and aerospace regulation can be judged by the number of flights, passengers, and air freight moved around the country.

While these outcomes may not be of interest in themselves for political scientists, they often are used in combined indicators or as proxies for other concepts. In this paper, we show that while infrastructure aid largely has it’s desired effect, the identity of the actor delivering the aid has a large difference in how it reaches that goal.

Specifically, we argue that infrastructure aid can be aimed at improving established, modern, or advanced technologies. In developing nations, all three of these will likely be lacking but having one before the others is rarely required. We show that while donor states and the multilateral international organizations aim their infrastructure funds on established technologies that are already outdated in their home countries, recipient governments and NGO’s typically target modern technologies that are actively used and still being developed in advanced countries. Finally, advanced technologies that will be most useful at a future date but have a muted impact in the present are preferred by private actors such as corporations since these actors are considering future opportunities to profit in and from the developing nation.

## Disaggregating the Delivery Actor

* Recycle stuff from earlier article, cite the working paper

## Separating Infrastructure Outcomes

In this paper, we separate infrastructure into three potential categories depending on its level of technological advancement. Older technologies that are widely used in advanced societies with little room for improvement are considered “established.” Good examples of these include passenger railways and fixed line (landline) telephones wired directly to peoples homes. These are technologies that were invented at least a century ago and have been widely adopted and used. While they are still in use and existing infrastructure may be replaced, these technologies have for the most part advanced to a terminal stage and are being displaced with more advanced technologies they cannot compete with.

“Modern” technologies are those that are still actively being developed and upgraded and may not have fully expanded across even advanced countries at a cost that all individuals can afford. Good examples include mobile/cellular telephones and passenger air travel. These newer technologies have typically been around for a few decades and usually are actively pushing out established technologies such as passenger railway travel and fixed line telephones.

Finally, “advanced” technologies are those that are on the cutting edge of technological advancement. While these inventions may also be somewhat common in advanced countries, they are still new and it is not assumed that everyone in those countries will have access to them. The best example would be high speed internet that makes smart phones and wearables possible.

The most important aspect of modern and advanced infrastructure technologies is that they do not need established technologies to exist to be used. Continuing with the telecommunications example, most advanced states established nationwide fixed-line telephone before building cellular towers and finally upgrading most of those connections to carry high-speed Internet. There is not reason, however, that cellular towers or high speed Internet cannot be made available without those earlier technologies.

For those that work on issues related to infrastructure aid in Africa, this should come as no surprise. Many countries have prioritized cellular networks over fixed line telephones because the technology is more versatile and does not need to be repaired as often.

## Crafting in Their Own Image

The figures below illustrate that when donor states and IGOs (multilateral organizations) deliver their aid themselves, choosing themselves how to use it, they typically wind up recreating their own history by focusing on building established technologies where there aren’t any before advancing to modern and advanced forms of infrastructure. They even do this at the expense of those more advanced technologies, often hindering outcomes associated with better technologies in preference for the older technologies.

…expand, write up results in more detail (~1000 words)

## Responding to Current Demand

NGOs, however, are are rarely concerned with established technologies that are often bested by modern technologies in both performance and cost. As a result, they focus on improving these outcomes like mobile phone availability and air travel while ignoring fixed phone lines and railways.

## A Focus on the Future

When recipient governments and corporations deliver the aid from donor countries, they both focus on the most advanced technologies possible, building secure servers for future content storage and high speed internet as well as investing in the best forms for transportation and shipping. These advanced technologies are rarely immediately useful to the country as a whole and may only benefit those in city centers. Corporations likely do this with a focus on the future when they will have first access into these sectors and can use it to develop others and expand a market for their goods.

Recipient governments could be doing it for various reasons, which include building a better future for the country even if it means sacrificing today, building the best infrastructure where they live with little concern for more rural areas, and constructing what they know corporations will be most interested in.

## Implications (change this title)

While we have focused on the varying ways that different actors implement infrastructure aid in the research note, there is little reason to think that similar effects may not generalize to other cases. In the realm of military aid, this would be a critical security concern if states are only providing weaker allies with established military technologies instead of arming them with more effective modern or advanced weaponry. While NGOs do not exist for military aid, corporations do and may be suppling developing actors with much more advanced weaponry at the behest of Western states that those states themselves would not give them.

Similarly, democratization aid has a large focus on increasing the availability and freedom of information in weak democracies, but from pre-existing literature (cite) we know that more advanced technologies have different effects, with some even aiding autocratic forces by making it easier to monitor populations. If these results generalize, then donors should be very concerned with which types of technologies their dollars fund.

Infrastructure should also be a subject of interest in its own right…