Is aid a waste of money?

It is sometimes claimed that overseas development aid is wasted; that little of it reaches the poor. After fifty years of aid, there are still many poor countries, and about a billion people still live on less than a dollar a day. Can we conclude that aid is wasted? **Owen Barder** has a statistic that says otherwise.

The British economist Peter Bauer famously claimed in the mid-1970s that foreign aid is a mechanism by which "poor people in rich countries are taxed to support the lifestyles of rich people in poor countries".

There is still a lively debate nearly 40 years later about whether aid is a waste of taxpayers' money. Dambisa Moyo claims in her bestselling book of 2009² that development assistance to African governments has fostered dependency, encouraged corruption and ultimately perpetuated poor governance and poverty. (Her book is dedicated to Bauer.) The problems that aid aims to address are complex, and it is difficult to determine statistically what difference, if any, it makes to their solution³.

In the midst of this legitimate uncertainty, it is easy to lose sight of the enormous human benefit that successful development programmes, partly financed by foreign assistance, can bring about. Here is one way to bring that into perspective. It was suggested by Toby Ord at Oxford University:

If you add up all the aid that all OECD countries have given since they started counting it in 1960, and then assume that the only thing that this aid has achieved was the eradication of smallpox, then the whole thing would still be a bargain, costing less than half what the UK National Health Service spends on average to save a life.

Here are the numbers. According to the OECD, total aid since 1960 has been about \$2.6 trillion in cash terms, which works out at about \$4.7 trillion in 2013 prices (that is, taking account of inflation).

Today most of us do not remember how terrible smallpox was. Before it was eradicated in 1978, smallpox killed more people than all wars put together. The story of its eradication is told in one of the chapters of the Center for Global Development book *Millions Saved*⁴. As is documented there, the eradication of smallpox

was mainly financed by the affected countries, but foreign aid played a crucial role (though we should acknowledge that no one can say for certain what would have happened in the absence of aid). The last naturally occurring case was diagnosed in 1977 in Somalia. Since the official declaration of its eradication in 1978, somewhere between 60 million and 120 million premature deaths have been averted⁵. The figures come from extrapolation from the 1.5 million deaths that it caused in 1967.

If you divide the total amount of money we have spent on all aid from all donors to all developing countries put together (\$4.7 trillion) by the minimum number of deaths averted only by the eradication of smallpox (60 million) you get \$78300 per death from smallpox averted.

The UK's National Institute for Health and Clinical Excellence (NICE) uses a cost-effectiveness threshold of roughly £100000 per death averted. A treatment which costs less than £100000 (or US\$160000) to avert a death is regarded as good value for money. Some British newspapers - including papers which are hostile to foreign aid - argue that these costeffectiveness thresholds are too low. The Daily Mail, which calls NICE a "rationing body", says that we should be willing to spend more than this to prolong life or improve its quality. Perhaps we should: the threshold used in America is far higher, and in other public policy contexts we use much higher figures than this for the value of a human life.



Child with smallpox; taken before 1977. Children no longer catch smallpox. Photo: Centers for Disease Control and Prevention's Public Health Image Library (PHIL): http://phil.cdc.gov/phil/details.asp?pid=3

So even if we make the absurdly conservative assumption that the only thing achieved by the totality of all foreign aid has been the eradication of smallpox, and that this saved only 60 million lives (which is the lower end of the likely range), then the cost per death averted has been less than half the cost which we say is good value for money to avert a death in the UK National Health Service. (On the same basis, the smallpox programme itself – which cost about \$1.5 billion – was ridiculously good value for money, at just \$25 per death averted.)

The eradication of smallpox is not in reality the only success to which foreign aid has contributed. As well as ending deaths by smallpox, aid has contributed to reductions in deaths

- "So there we have it: sixty years, over US\$1 trillion dollars of African aid, and not much good to show for it."
- "Since the 1940s, approximately a trillion dollars of aid has been transferred from rich countries to Africa. This is nearly \$1,000 for every man, woman and child on the planet today."

Dambisa Moyo, Dead Aid: Why Aid Is Not Working and How There Is a Better Way for Africa (2009).



Anti-corruption billboard, Uganda. Photo: Transparency International

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caused by diarrhoea, measles, malaria and other diseases, together averting about 10 million deaths a year (roughly equivalent in deaths averted to eradicating smallpox six times over). The Green Revolution in agriculture is commonly credited with having averted a billion deaths from hunger⁷. Millions of children have gone to school, and families have been given access to clean drinking water and electricity. Farmers have been given access to irrigation, seeds and fertilisers, and entrepreneurs have been given small loans. Governments have been helped to collect tax and organise elections. Millions more women have access to family planning.

If the only costs of foreign aid were the reduction in income for taxpayers in donor nations, we would need no further evidence to be able to say that aid is money well spent. If it is good value for money to avert a premature death at a cost of £100 000, and if our value-for-money calculations put the same value on averting the death of an Indian or an African as averting the death of a British or US citizen, then we need only take account of the deaths averted from the eradication of smallpox to conclude that foreign aid has, on average, been good value for money.

The main counterargument is that it is possible that some aid could do harm, which we need

Should we judge aid as a lottery? Why not? The jackpot can be so huge in terms of suffering averted that it would justify many failures along the way

to include alongside the good that it does. For example, aid could blunt the incentives for governments to undertake reforms which would be in the long-term interests of their countries and their citizens; it could keep bad governments in place for longer than they otherwise would be; or it could undermine the evolution of effective and accountable institutions. These possible unintended consequences of foreign aid would need to be set against the proven benefits, such as improvements in health. Empirically, such a calculation is very difficult, because we have no reliable way of quantifying these possible negative effects of aid.

One way to try to get a handle on the negative effects of aid as well as the positive is to look at the correlation between development aid and economic growth. This is complicated by

the difficulty of distinguishing cause and effect. If you often see fire engines outside burning buildings you should not conclude that the fire brigade is committing arson: their attendance is probably the consequence, not the cause, of the fires. By the same token, donors sensibly provide more foreign aid to countries which need the most help, so if we find a statistical correlation between foreign aid and poor economic performance we should not conclude that foreign aid is the cause, rather than the consequence, of poverty. When cause and effect are carefully disentangled - as in a recent award-winning paper by Michael Clemens and others8 - the evidence tends to suggest that that development aid has, on average, helped to increase economic growth and raise incomes. There could be negative effects from aid: if so, they seem to be outweighed, on average, by the benefits. So while we do not have clear evidence of aid doing harm, at least not on average, we do have strong evidence of very large specific benefits from aid in terms of lives saved and improved quality of life for millions of people.

Is it reasonable to judge aid as we would a lottery, calculating the odds and rewards of success against the odds of failure? There is no reason why not. Development is an unpredictable process, and any particular aid programme may succeed or fail. But if the successes are sufficiently valuable, and the costs of failure are small enough, then we can take the rough with the smooth to reach a judgement of whether, in the long run and taken as a whole, it is a good use of our money. The calculation about smallpox reminds us that the jackpot can be so huge - in terms of averting disease and death - that it would justify a lot of less effective spending if that is necessary to achieve occasional successes on this scale.

None of this is an excuse for complacency. Some aid programmes fail, and some of those failures are avoidable. We can continue to improve the value for money of aid, and we have an obligation both to taxpayers and to the people we are trying to help to do so. We should be conscious of the opportunity costs of using aid in the way we do, rather than in some other way which might help people more. The enormous benefits of success to our fellow human beings are so great that we have a duty to do everything we can to increase the odds of securing them. I am proud to work for the Center for Global Development, an organisation which devotes quite a bit of time and effort to finding positive ways to help to make aid better, as well as arguing for other policy changes to accelerate development. The conversation about how to improve aid is important: but please let us start with the recognition that aid is already fantastically good value for money.



Statue of Sopona, the West African god thought to inflict the disease of smallpox. The carved wooden figure is adorned with monkey skulls, cowrie shells, and nails. Photo by James Gathany, CDC/ Global Health Odyssey, courtesy of the Centers for Disease Control and Prevention's Public Health Image Library

References

- Bauer, P. (1976) Dissent on Development. London: Weidenfield & Nicolson.
- 2. Moyo, D. (2009) Dead Aid: Why Aid Is Not Working and How There Is a Better Way for Africa. New York: Farrar, Straus and Giroux.
- 3. Roodman, D. (2007) The anarchy of numbers: aid, development, and cross-country empirics. Center for Global Development Working Paper 32. CGD, Washington, DC.
- 4. Levine, R. (2004) Millions Saved: Proven Successes in Global Health. Washington, DC: Center for Global Development.
- 5. Henderson, D. A. *et al.* (1988) *Smallpox and its Eradication*, Vol. 6. Geneva: World Health Organization.
- 6. McCabe, C., Claxton, K. and Culyer, A. J. (2008) The NICE cost-effectiveness threshold: what it is and what that means. *Pharmacoeconomics*, **26**(9), 733–744.
- 7. Easterbrook, G. (1997) Forgotten benefactor of humanity. *Atlantic Monthly*, **279**(1), 75–82.
- 8. Clemens, M. A., Radelet, S., Bhavnani, R. R. and Bazzi, S. (2012) Counting chickens when they hatch: Timing and the effects of aid on growth. *Economic Journal*, **122**, 590–617.

Owen Barder is Senior Fellow and Director for Europe at the Center for Global Development.