Effective Altruism Foundation

EVIDENCE-BASED DEVELOPMENT COOPERATION

Greater Effectiveness Through Impact Evaluations

POLICY PAPER

Despite the unprecedented economic and technological advances of the past decades, roughly one in ten people still live in extreme poverty. This is one of the most urgent ethical problems of our time. Every year, Germany and Switzerland devote billions to development cooperation in order to create opportunities for these people. However, results from scientific research show that both countries finance extremely low-impact projects as well as highly effective ones. This paper introduces the current state of empirical research on development cooperation and recommends the following: particularly impactful projects should be promoted, and less effective projects should be ended; evaluations should be carried out more frequently as impact evaluations, and should meet academic research standards; more financial resources should be provided to achieve these goals; and Germany and Switzerland should affiliate with international research projects on impact measurement, as this would help countless people in need and simultaneously strengthen the trust of voters.

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Evidence-based Development Cooperation

"Each year billions of dollars are spent on thousands of programs to improve health, education and other social sector outcomes in the developing world. But very few programs benefit from studies that could determine whether or not they actually made a difference. This absence of evidence is an urgent problem: it not only wastes money but denies poor people crucial support to improve their lives."

—Savedoff, Levine, & Birdsall, 2006

Executive Summary

Global poverty is one of the most pressing ethical problems of our time. Every day, 16,000 children under the age of five years old die—a tragedy that we only allow to continue because it does not happen before our very eyes.[1,2] Geographical distance, however, does not absolve us from responsibility. Through foreign and development policy, wealthy countries like Germany and Switzerland can make a considerable contribution to alleviating this plight. At the same time, child mortality along with other poverty indicators is at an all-time low. Since 1990, the global proportion of people living in extreme poverty has fallen by 27 percentage points,[3,4] and at the end of 2016, 9.1% of the world's population still lived below the poverty line of U.S. $1.90 per day (adjusted for purchasing power).[5]

However, these improvements are not really due to development cooperation; rather, they are mainly a result of the rapid economic growth of China and India in recent decades.[6] Can development cooperation make a significant contribution to development at all? And if so, under what conditions?

In the last decade, development economics has been thoroughly researched, and our knowledge base has become stronger. Independent research institutes have investigated the effectiveness of numerous aid programs using rigorous scientific methods. While some programs have in fact proved less effective, numerous others have been demonstrated to have a disproportionately high impact, especially in the domain of healthcare. For example, just €200 worth of mosquito nets can save a whole year of life in malaria-affected areas.[7] These results rest on numerous high-quality randomized control trials, and even skeptical experts like Angus Deaton or William Easterly recognize the effectiveness of such programs.[8]

Germany and Switzerland are already involved in many highly effective endeavors, but also maintain some projects that are practically useless according to current scientific research. Based on current research findings, we recommend the following steps to improve the effectiveness of development cooperation:

Recommendation 1: **Greater prioritization of projects with outstanding cost-effectiveness.** Low-cost programs with high effectiveness should be systematically promoted, especially in the field of health. Prioritizing programs on the basis of their cost-effectiveness should be enshrined as a strategic goal. Germany and Switzerland are already involved in many highly effective projects like malaria prevention, and these commitments should be extended even further. Underfunded areas with high potential impact, like programs to combat neglected tropical diseases, micronutrient initiatives, and direct cash transfers, should be promoted more vigorously.

Recommendation 2: **Earlier termination of demonstrably ineffective programs.** Both Germany and Switzerland maintain microcredit programmes, whose effectiveness lags far behind that of direct cash transfers, targeted health programs, or other microfinance products. These and other demonstrably ineffective programs should be ended as quickly as possible. Direct cash transfers could be used as a benchmark in impact evaluations. If an evaluation shows a poor result, this should be taken as an important learning success, allowing for the allocation of financial resources to other more impactful projects.

Recommendation 3: **Greater reliance on evaluations and the setting of higher quality standards.** Evaluation methods currently in use fail to meet scientific quality standards. Often, the results of a program are not compared with a control group, meaning that its actual impact cannot be measured. High-quality standards comparable to those used in academic research should be required. More high-quality impact evaluations should be carried out, and the quality of these evaluations should be weighted higher than their quantity. The necessary expertise could be sourced externally from specialist organizations. A modernization of survey technology would bring more precise results as well as cost savings. All results should be published openly so that they can be reviewed independently and used globally.

Recommendation 4: **More comprehensive use of scientific research findings.** Some examination of impact evaluations already takes place within both German and Swiss development cooperation, but it is not a central part of the project planning process. Scientific research findings should be considered in all processes, plans, and evaluations. Evidence-based methods should be employed in all project phases. Further training could improve methodological expertise, and a scientific advisory board could be formed for larger projects. Projects should be evaluated on their impact before they receive additional resources or are continued in the long term.

Recommendation 5: **Additional financial resources for research and evaluation.** Since even small investments in high-quality evaluations enable massive increases in impact, a larger percentage of project-specific and total budgets should go towards evaluation and scientific research. Relevant research and innovation programs could be developed. Germany and Switzerland should also affiliate with international research projects, especially the International Initiative for Impact Evaluation (3ie) and the Global Innovation Fund. In doing so, both countries could contribute to making the development cooperation of all actors more effective.

What actually works

Global poverty remains one of the most important ethical problems of our time: the most up-to-date World Bank statistics from 2013 counted nearly 800 million people, or 10.7% of the world's population, as living in extreme poverty. That means only $1.90 per person per day, adjusted for purchasing power.[5,9] † According to the current Global Multidimensional Poverty Index, which combines ten indicators in the three dimensions of health, education, and living standards, 1.5 million people live in multidimensional poverty.[10]

The past decades have shown that substantial progress is possible: poverty is at an all-time low in both absolute and relative terms. Contrary to daily headlines, the world as a whole is a wealthier, more peaceful, healthier, and more educated place than ever before.[3,11] From 1990 to 2015 the global proportion of people living in absolute poverty fell by 27 percentage points[4]—a considerable success that is largely due to rapid economic growth in China and India.[6] Nevertheless, it is intolerable that 800 million people are still living in extreme poverty, and we must ask ourselves the question: how can we permanently resolve this ethical catastrophe as quickly as possible?

Systematic prioritization of aid projects as an ethical imperative

Like the total state budget, the resources available for development cooperation are limited. This means that not all programs can be supported. Which programs and interventions deserve to be funded? How should these limited means be allocated between different fields and within each field? We cannot evade these difficult questions: making no decision is also a form of decision.

On the basis that all human lives are equally valuable and that we want to achieve as much as possible with limited financial resources, programs should be prioritized according to their cost-effectiveness. Programs that attain a comparatively limited effect for their costs should only be carried out once funding has been secured for programs with a higher impact, lower cost, or both. If we do not take this approach, it leads to preferential treatment or discrimination regarding individual groups, and our impact will fall significantly short of its potential.

The principle of impact-oriented prioritization has been known for decades in medicine as "triage": in emergency situations, those patients in most need are treated first.[12,13] In the health system, disaster response and measures on traffic safety also use a similar cost-benefit analysis. For example, the Swiss Federal Supreme Court established that cost-benefit analyses are indispensable for an equal and fair distribution of limited resources in the health system.[14] The principle of efficiency is legally enshrined in the German and Swiss health care systems.[15,16]

For development cooperation, this principle means that where there is a choice between two equally expensive interventions in a particular area and only one of the two can be funded, we should choose the intervention which can achieve the greatest impact. The WHO suggests that comprehensive funding should be secured for programs with high priority first, and only then should programs with a lower priority can be carried out.[17] In the field of health, scientific research shows that popular interventions can vary in cost-effectiveness by a factor of around 150.[18]

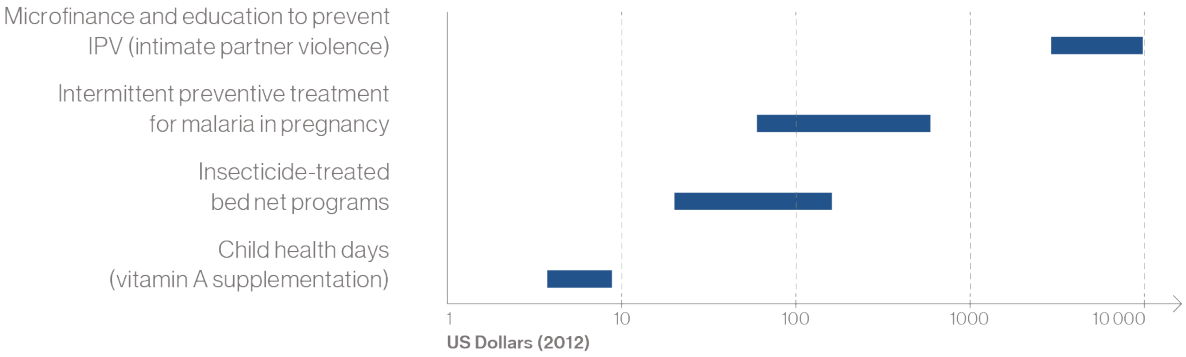
The focus on cost-effectiveness is not, as is often claimed, an act of abstract cold-heartedness: quite the opposite. It is a form of universal compassion: we want the least amount of suffering and the highest quality of life as possible for all of our fellow humans. Prioritization with the aid of scientific cost-benefit analyses is better characterized as "warm and calculating"—the calculations are important precisely because every individual counts.

A short history of development policy

There has been economic development for well-nigh the whole of human history, but international development cooperation as we understand it today was first developed after the Second World War. During the subsequent era of reconstruction and incipient

† In 2016 it was estimated that nearly 700 million people still lived in extreme poverty.[5]

Cost-effectiveness
of different health programs



Cost per healthy life year (DALY) for community based programs in the field of maternal and child health
(Selection) Source: Lassi et al., 2016

decolonization, international development organizations like the World Bank and the IMF, as well as national development ministries and agencies, were founded.

In the following decades, the development policy agenda was dominated by the political exigencies of the Cold War along with various economic theories, like so-called dependency theory in the 1960s or neoliberal ideas in the 1980s. The human development approach that was taken up at the end of the 1990s by UNDP in particular, as well as the agreement of the Millennium Development Goals at the start of the new millennium, created an international consensus, which brought poverty and development into sharper political focus than ever.

The idea of development cooperation was contested from its conception.[19] Over the last two decades the question of the effectiveness of development cooperation has been at the heart of the discussion,[20] and above all, since the middle of the 2000s, there has been an international academic debate. Some academics think that development cooperation is fundamentally ineffective and ill-advised.

For example, the economist William Easterly describes development cooperation in his two books "The Elusive Quest for Growth"[21] and "The White Man's Burden"[22] as a "feel good economic policy" that merely salves donors' consciences, but in reality does little good and much harm. On the one hand, bad programs could cause direct harm, as happens when defective water filters are distributed, which then fail to make the water safe for drinking and in turn lead to more waterborne infection. On the other hand, foreign aid efforts could also have indirect negative effects, for instance, if they lead to the population holding their government to less account. The Nobel prize winner Angus Deaton also stresses in his book "The Great Escape"[23] that so far development cooperation has hardly demonstrated its success. The economist Dambisa Moyo argues in her book "Dead Aid"[24] that budgetary aid to African governments has caused dependency, corruption, and generally poor governance, and hence concludes that aid should be gradually phased out. The economist James Shikwati comes to a similar conclusion.[25]

On the other side of the debate, the likes of Jeffrey Sachs argue that carefully implemented development programs could permanently end global poverty by 2025. In his book "The End of Poverty",[26] Sachs presents the concept of a "poverty trap": because of raging corruption, diseases like malaria and AIDS, and woeful infrastructure, very poor countries are excluded from the global economy and thus from the process of economic development. Only through the financial support of richer nations can these countries escape the "poverty trap" and participate in the global economy, whereupon the need for development funds will decline steeply or disappear altogether.

On one point, however, critics and supporters are unanimous: vertical health programs that solve a particular problem in a targeted way (like HIV/AIDS) are highly effective in both the short- and long-term

and are among the greatest successes of development cooperation so far.[8] For example, in "The Great Escape",[22] the development critic Angus Deaton writes: "These health campaigns, known as "vertical health programs," have been effective in saving millions of lives. Other vertical initiatives include the successful campaign to eliminate smallpox throughout the world; the campaign against river blindness jointly mounted by the World Bank, the Carter Centre, WHO, and Merck; and the ongoing—but as yet incomplete—attempt to eliminate polio."

From this academic debate, we can conclude that some projects have a very positive effect, while many are less effective, and some could even be harmful. It is therefore of central importance to find a method that allows us to distinguish between effective projects and less effective ones.

The importance of impact evaluations

The media coverage of development cooperation usually focuses on individual failures, without taking into account the complexity of the topic. We would like to avoid this and instead base our praise and criticism on as sophisticated and scientific a footing as possible. Wherever it is possible to do so, scientific methods like impact evaluations should be used to establish which programs achieve the desired outcomes and which do not. Such evaluations are especially important in development cooperation, as unlike in the private sector there are no automatic feedback mechanisms in the form of financial profit to ensure quality.

Following the aforementioned development policy debate, which over many years was barely based on empirical data, at the end of the 1990s impact evaluations or impact studies and their scientific findings came increasingly to the fore. In contrast to traditional evaluations, impact evaluations compare a treatment group with a control group—as in randomized field experiments.

A working group for the Center for Global Development argued for this approach in an influential report :

"Each year billions of dollars are spent on thousands of programs to improve health, education and other social sector outcomes in the developing world. But very few programs benefit from studies that could determine whether or not they actually made a difference. This absence of evidence is an urgent problem: it not only wastes money but denies poor people crucial support to improve their lives." [27]

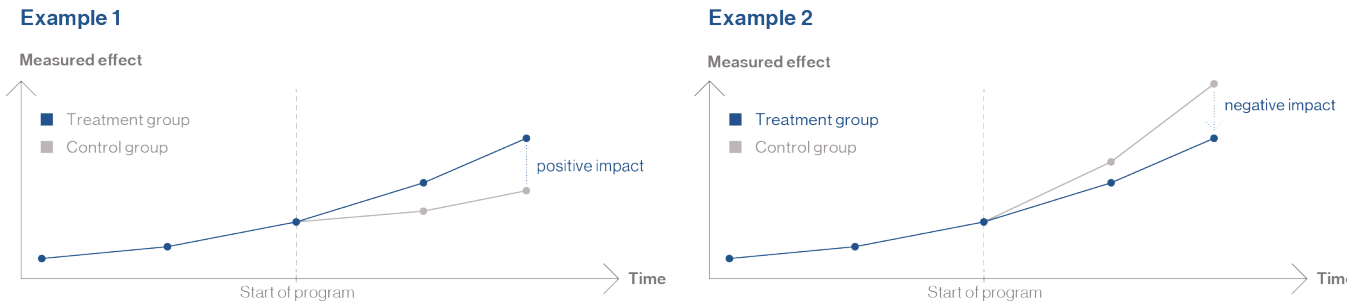
The trend for evaluation was initiated by Abhijit Banerjee (MIT) and Esther Duflo (MIT) among others. In 2003 they founded the Poverty Action Lab (known today as the Abdul Latif Jameel Poverty Action Lab under the abbreviation J-PAL), to translate research findings into practice. In their book "Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty",[28] they present convincing empirical investigations that often deliver astonishing results. They write: "The response to J-PAL's work suggests that there are many who share our basic premise—that it is possible to make very significant progress against the biggest problem in the world through the accumulation of a set of small steps, each well thought out, carefully tested, and judiciously implemented. This might seem self-evident, but as we will argue throughout the book, it is not how policy usually gets made."[27]

Institutions in the field of **impact evaluation**

Name	Activity	Website
Abdul Latif Jameel Poverty Action Lab (J-PAL)	Research institute at the Massachusetts Institute of Technology founded in 2003 by Esther Duflo, Abhijit Banerjee, and other researchers. It carries out impact evaluations in the field of development cooperation, which are then summarized and made freely accessible as "Policy Lessons".	povertyactionlab.org
BREAD	Non-profit organization that has held conferences on development economics since 2002.	ibread.org
Center for Effective Global Action (CEGA)	CEGA at the University of California is one of the largest research centres in the field of development economics.	cega.berkeley.edu
Center for Global Development	Influential think tank that has promoted improving effectiveness in development since 2002.	cgdev.org
The German Institute for Development Evaluation (DEval)	Founded in 2012 and financed by the German Federal Ministry for Economic Cooperation and Development (BMZ). It evaluates the work of development policy actors in Germany.	deval.org
Development Impact Evaluation (DIME)	World Bank research project that evaluates the projects of multilateral development banks.	worldbank.org/en/research/dime
Development Innovation Ventures (DIV)	US-based project competition that awards funding to particularly effective development projects. Founded in 2010.	usaid.gov/div
Disease Control Priorities Network (DCP3)	Report providing governments and international organizations with a guide to the strategic prioritization of different health interventions based on cost-effectiveness.	dcp-3.org
GiveWell	Evaluates charities using evidence-based methods and gives donation recommendations to private individuals. Founded in 2007 by former hedge fund managers Holden Karnofsky and Elie Hassenfeld.	givewell.org
Global Innovation Fund	Established in 2014 by several state development organizations and invests in novel projects with innovative approaches to poverty reduction.	globalinnovation.fund
IDinsight	Supports governments with designing and carrying out studies and comprehensively implementating successful pilot projects. Founded in 2011, the organization has offered private and public clients tailor-made services for impact evaluations, enabling them to conduct high-quality evaluations without possessing the expertise themselves.	idinsight.org
Innovations for Poverty Action (IPA)	Non-profit research institute founded in 2002 by the economist Dean Karlan. Since then, it has carried out over 600 impact evaluations. The results are freely available online.	poverty-action.org
International Initiative for Impact Evaluation (3ie)	Maintains the most complete database of impact evaluations with over 4,000 studies. The organization has already funded over 200 research projects. Founded in 2008 by DFID, the Bill & Melinda Gates Foundation, and the William and Flora Hewlett Foundation.	3ieimpact.org
NADEL – Center for Development and Cooperation	Dedicated to academic teaching, empirical research, and public outreach. The Swiss Agency for Development and Cooperation (SDC) ran an impact competition in collaboration with NADEL. Based at ETH Zurich.	nadel.ethz.ch
Strategic Impact Evaluation Fund (SIEF)	World Bank program that finances impact evaluations in developing countries.	worldbank.org/en/programs/sief-trust-fund

Counterfactual impact

This fictional example shows the progress of the treatment group (yellow) and the control group (blue, various scenarios). The impact of a project can only be measured by comparing the treatment and control groups.



Using science to measure impact

Let us imagine a project combatting malaria: BMZ or SDC partners distribute a total of 100,000 mosquito nets in several villages, and the project costs a total of 600,000 euro (or roughly 660,000 francs). In the course of a year, 6,000 of the 300,000 people in these villages fall sick with malaria. Was the project successful? To be able to judge this, we need to answer the following question: how many people would have caught malaria, if no nets had been distributed? Only in answering this question can we judge the true "counterfactual" impact of the intervention.

And this is precisely the goal of scientific impact evaluations (also known as "impact studies"): they not only record the outcome for the treatment group—as is common practice in development cooperation today—but also the progress of the control group, and then compare the results. In other words, they attempt to measure the causal impact of the program (the cause-and-effect relationship) instead of a pure correlation. Ideally, this is done through randomized controlled trials (RCTs). In an RCT, individuals, schools, villages, or regions are randomly assigned to treatment and control groups. In our example, mosquito nets were distributed in the treatment region, while only measurement was carried out in the control region. In practice, new programs often cannot be offered comprehensively to begin with, which makes it easy to assign beneficiaries randomly to treatment and control groups. The results of RCTs are often surprising and not intuitively predictable. Impact evaluations are carried out on the one hand by academic research and on the other by charities themselves.

RCTs are suited to impact measurement in the field of health and many other fields. For more complex questions in areas like governance and human rights, quasi-experimental impact studies (like regression discontinuity design) or a combination of theory, qualitative research, and observational studies can be used instead.[29] Specialists often seem to underestimate the possibilities of quantitative methods: even systematic estimates and apparently unquantifiable values can be measured using cleverly chosen indicators and well-implemented econometric calculations. For example, in the field of governance it is possible to analyse not only the turnout and electoral behavior of the poorer classes of the population or the impact of quotas for women in Indian village councils, but also political regulations like reservation, the provision of public goods, or the Chinese one-child policy.[28,30–35] In the fight against corruption, it is possible to estimate what amount of money is used appropriately.[36,37] Numerous impact evaluations have also been carried out in peacebuilding.[38] On the macro level, the influence of institutions on poverty has been investigated,[39] and randomized studies can even be carried out on questions of tax avoidance and the effects of redistribution.[40,41] The Poverty Action Lab writes: "That doesn't mean that most goals are immeasurable. Rather, more thought and creativity must go into devising their corresponding indicators."[42] These research results not only help us to find out which projects actually work, but also convey a sophisticated overview of the conditions and causes of global poverty.

Scientific research findings can be used in development cooperation in three ways:

1. **Improving existing programs:** Determining the optimal costs for the distribution of mosquito nets raises the effectiveness of malaria prevention programs (see Case study: Malaria prevention: Are nets actually hung over beds?). Numerous NGOs and development organizations already do this systematically.
2. **Prioritizing between similar programs:** Different scientific methods allow us to estimate not only the effectiveness of a program, but also its cost-effectiveness—that is, the benefits divided by the costs. It then becomes possible to compare the cost-effectiveness of, for example, different HIV prevention programs and then to fund the most effective among them, before turning to less effective programs. This approach is uncontroversial, and yet has so far hardly been used in Germany and Switzerland. With little additional cost, significantly more people could be helped.
3. **Prioritizing between different programs:** Cost-benefit analyses enable the comparison of completely different interventions: should limited financial resources be used for malaria prevention or for humanitarian disaster relief? Although analyses of this sort are used in both the German and the Swiss healthcare systems, they are only very rarely used in development cooperation. This is partly because some programs are impossible or very hard to compare—for example, it is hardly possible to calculate the impact of the promotion of democracy in healthy life years. Moreover, development funds are often difficult to redirect, as foreign and development policy is driven by political interests and privileges certain countries and causes over others. It is therefore not surprising that in this area a pioneering role is played by international organizations like the World Bank, the WHO, and other UN organizations, which have to present their priorities as neutrally as possible because of global political pressure for legitimation.

We hold all three approaches to be valuable but will concentrate in this paper on the first two in particular, as here practical feasibility has been more thoroughly grounded.

Scientific methods have their limits: results can only be generalized to other contexts if the underlying assumptions of the "theory of change" are also met by the new context.[43] Again and again, studies are poorly carried out or their results cannot be replicated. Academia meets this challenge with independent replications, systematic reviews, and meta-studies, as well as the continuous improvement of methodologies. Moreover, given the large differences in effectiveness between different interventions, even imprecise results can be informative.

Impact evaluations are not a miracle cure. Nevertheless, they are of essential significance for an effective reduction in poverty: our intuitive estimates are mostly misguided, and through scientific research, we can significantly enhance the impact of development cooperation. Without research, we are groping in the dark.

Checklist: The perfect impact evaluation

A high-quality impact evaluation should meet the following criteria:

1. Implementation of a randomized controlled trial (RCT) or a high-quality investigation with a control group;[42]
2. Sufficiently large sample size, so that the relevant effects can be measured;[44]
3. Measurement of relevant outcomes;
4. Preregistration of the study on a publicly accessible platform to avoid publication bias;[45]
5. Publication of a pre-analysis plan according to the World Bank checklist;[46]
6. Transparency with regards to research data and code;[47]
7. Minimization of bias risks.[42]

Even small, low-cost projects can fulfill these demands perfectly well.[48]

Case study: Malaria prevention—are bednets actually hung over beds?

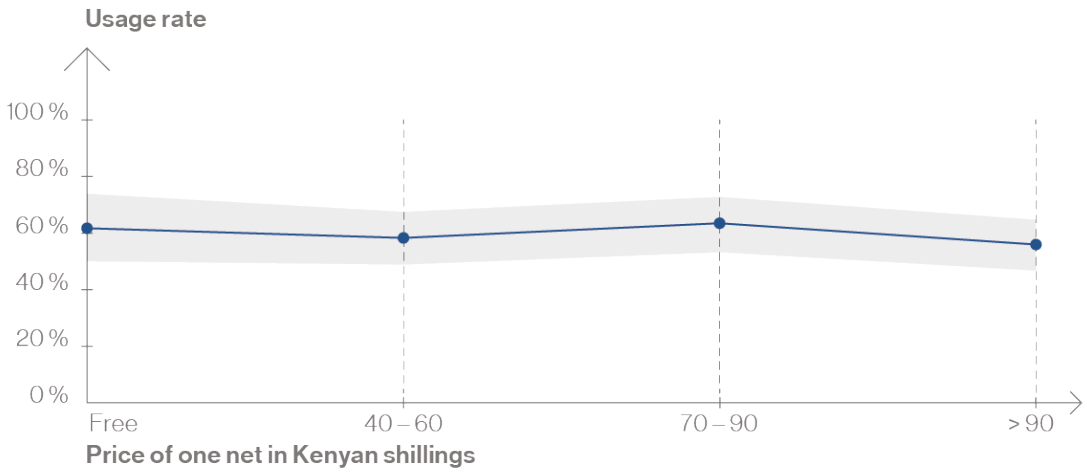
Insecticide-treated mosquito nets are not only highly effective but also very cheap, and are therefore distributed for free in many countries. But are the nets actually hung over the beds? Or, if what is free is valueless, are nets soon thrown away or even used as fishing nets or bridal veils? Does the population get used to free distribution, so that in future they buy fewer nets?

Over the past decade, politicians, researchers, and the media have vehemently debated the merits and demerits of free distribution. Thanks to randomized field experiments, these discussions are now at an end, and we can answer the question.

Researchers distributed vouchers with different mosquito net discounts to individuals and later visited them at home to see with their own eyes whether the nets were actually hanging over the beds. The result: reports of fishing nets and bridal veils exaggerate isolated incidents.[49] Usage rates are high independent of the cost price—depending on the study and the region, the rates are between 60% and 90%.[50–52]

Mosquito net usage rates

Source: Dupas, 2009



One year later, researchers offered mosquito nets once again—but this time at the price of U.S. $2. Did individuals in the treatment group buy a further net or had they become accustomed to free handouts? Surprisingly interest rose: those who had profited from a free net were more likely to buy another.[52–54] Moreover, the free distribution led to a general increase in interest in mosquito nets—those who had seen a net at their neighbor's house bought themselves one too.[51,54] The free delivery of nets also enables high coverage rates, which leads to population immunity.[55] A general rule can be derived from these and other studies: free distribution of health products is especially valuable when the benefit is uncertain and lies in the future and when other people profit from it indirectly (spillover effects).[56]

Malaria is one of the largest causes of death in low-income countries.[57] The free distribution of insecticide-treated malaria nets is one of the most impactful interventions in the fight against poverty. Robust investigations show that around U.S. $7,500 can save a whole life.[58] In addition, these programs possibly have a positive long-term influence on the education of women.[59] Still, there is a global financial shortfall of several billion U.S. dollars each year.[60,61] Relevant programs have been implemented outstandingly by the Against Malaria Foundation;[58] TAMTAM;[62] the Global Fund;[63] in which Germany and Switzerland have invested heavily;[64] and NATNETS (supported by the Swiss TPH and the SDC in the framework of NETCELL[65]). The engagement of the SDC

in the latter two projects contributed to reducing child mortality in Tanzania by 48%[66]—a remarkable success.

Case study: GiveDirectly—direct cash transfers to poor households in Kenya

Do we really know the circumstances and needs of the poorest people better than they do themselves? Why do we buy particular goods and services for the needy instead of directly transferring them a particular sum of money? Direct cash transfers are implementable in most contexts and countries as part of both humanitarian aid and development cooperation and have achieved highly positive results in randomized studies.[67] An analysis of 165 evaluations shows how impactful cash transfers are: the results are astonishingly consistent and show parallel improvements in different fields. The common objection that cash transfers disincentivize working does not play out empirically—if anything, employment rates increase.[68]

The organization GiveDirectly uses modern technologies to distribute cash transfers efficiently: innovative image recognition software helps to identify poor households in Kenya by their straw roofs using satellite images. The households then receive a sum of money via a mobile payments system, which is theirs to use as they please.[69] GiveDirectly manages to send 91% of funds directly to beneficiary households.[70] Beneficiaries use the money to buy motorbikes, better roofs for their houses, or high-quality vegetables. Investigations show that expenditure on health, education, and nutrition, as well as investment in houses and small businesses, rise; meanwhile, expenditure on alcohol and cigarettes remains unchanged.[71–73] Cash transfers promote independence and create long-term opportunities.

Direct cash transfers are significantly superior to microcredit programmes in particular: they enable higher risk investments, as the sums of money do not need to be repaid, they avoid cases of high debt, and they are administratively considerably less costly.[74] Empirical research shows that in spite of media hype and the Nobel Peace Prize for Muhammed Yunus in 2006, microcredit programs hardly contribute to poverty reduction—unlike direct cash transfers.[75,76]

As cash transfers are broadly applicable and easy to evaluate, they can be used as a universal benchmark, and not only in comparison to microcredit programs. In many randomized controlled trials, an additional control group that also receives direct cash transfers can be introduced. This lays the burden of proof on other interventions—if it is apparent that an intervention achieves significantly less than the transferral of the same resources directly to poor people, then cash transfers should be used instead. Prof. Paul Niehaus and Prof. Chris Blattman express this as follows: “This abundance of data suggests that people are poor not because they lack initiative but because they lack resources and opportunities-things that, in many places, money can buy. Donors should thus ask themselves: With each dollar we spend, are we doing more good than the poor could do on their own with the same dollar?”[77] The British DFID is supporting a project of this sort in Pakistan from 2012-2020 with a total of £300 million.[78,79]

Recommendations

Scientific research shows clearly that development cooperation can make an important contribution to poverty reduction and development if financial resources are used in the most effective way.

Germany and Switzerland are already involved in numerous highly effective areas, but also maintain projects which according to current scientific research have no impact. We will now present five recommendations with the potential to massively increase the effectiveness of development cooperation in these two countries and so to achieve the stated political goal of poverty reduction more quickly. The implementation of these recommendations also limits the potential for negative media coverage, as reliable information about the (always accountable) use of taxpayers’ money will become available. This reduces the risk of failure in the long-term.

German development cooperation

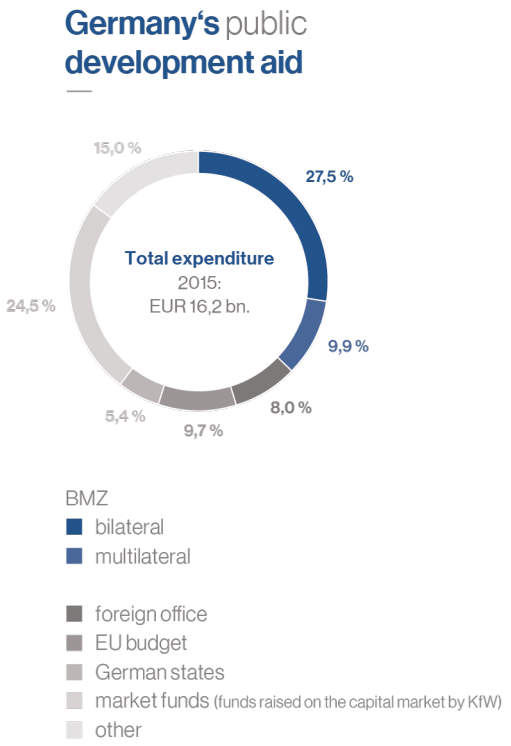
In Germany, the Federal Ministry for Economic Cooperation and Development (BMZ) undertakes the political management of German development cooperation, while so-called “implementing organizations” carry out the projects of technical (TZ) and

financial (FZ) cooperation. The German Gesellschaft für Internationale Zusammenarbeit (Society for International Cooperation or GIZ), which was formed in January 2011 through a merger of three predecessor organizations, is notable in the field of TZ. The KfW Development Bank and the Deutsche Investitions- und Entwicklungsgesellschaft (German Investment and Development Corporation or DEG) are responsible for FZ.

According to official ODA figures for the reporting year of 2015, Germany is the third largest donor worldwide at 16.2 billion euro, which corresponds to an ODA rate of 0.52% of GNI.[80] Only 14.5% of the German ODA went to the least developed countries—here Germany lags far behind the OECD average and UN targets.[81,82] Thirty-seven percent of ODA contributions fell to the BMZ, of which 74% was used for bilateral and 26% for multilateral ODA (such as the financing of UN, EU, World Bank or Development Bank organizations).

According to preliminary OECD figures, in 2016 Germany for the first time achieved an ODA rate of 0.7% of GNI—the target rate agreed by the United Nations over 40 years ago—and became the second largest donor worldwide behind the USA.[83,84] However, this growth can be attributed almost entirely to refugee expenditure, which counts towards ODA rates: in 2016, 25.2% of the total German ODA contribution of around 22 billion euro was spent on refugees within Germany itself.[85]

The 2015 OECD audit report on German international cooperation is generally highly positive. But it also notes in relation to evaluation practices that there is still room for improved knowledge sharing among implementing organizations and between implementing organizations and the ministry and that the BMZ must investigate how evaluation structures function in practice. Furthermore, the report recommends giving priority to the least developed countries (LDCs) in the planned budget extension (see also Recommendation 2).[86]



In recent years German international cooperation was rather inward-looking thanks to the reform of the implementing organizations. In future it must be ensured that organizational efficiency wins actually translate to increased effectiveness for developing countries: "Aid effectiveness does not necessarily imply development effectiveness, that is actual development impact."[87]

The evaluation institute DEval

The German Institute for Development Evaluation (DEval) was founded at the end of 2012. Funded by BMZ, DEval is an independent institution that evaluates the work of German development policy organizations. Though leadership difficulties initially hampered DEval's work,[88] the creation of an organization that carries out independent evaluations is still a welcome development. The DAC report recommended that the BMZ provide sufficient financial support and ensure effective reporting channels.[86] DEval has a particularly high potential to conduct methodological research and to continually develop corresponding evaluation instruments.

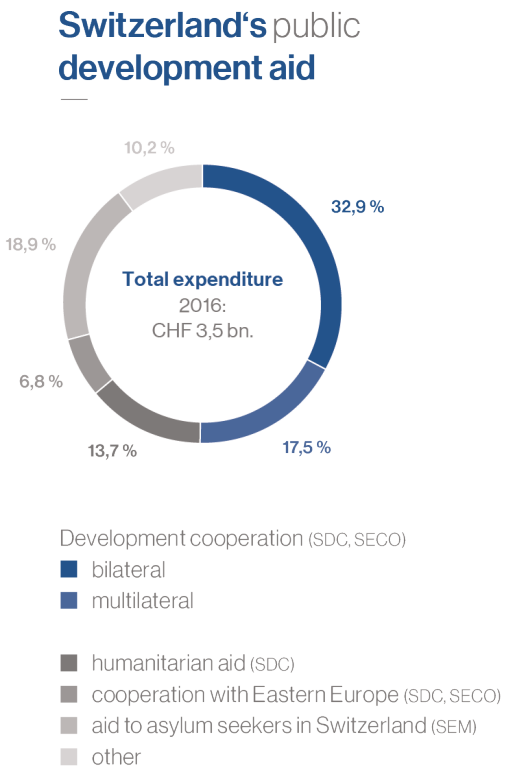
Swiss development cooperation

In Switzerland, international cooperation (consisting of development cooperation, humanitarian aid, cooperation with Eastern Europe, and peacebuilding) is carried out by the Swiss Agency for Development and Cooperation (SDC), the Economic Cooperation and Development grouping of the State Secretariat for Economic Affairs (SECO), and the Human Security

Division (HSD) of the Federal Department of Foreign Affairs (FDFA).

In 2016 official development assistance in Switzerland amounted to around 3.5 billion Swiss francs or 0.54% of Gross National Income (GNI). However, a significant part of this was used for asylum seekers in Switzerland as well as for various other purposes; only around 76% of the total amount (2.7 billion francs, 0.41% of GNI) was spent on international cooperation by SDC, SECO, and HSD. Half of the development budget was spent on development cooperation, of which around two-thirds was spent on bilateral projects and around one third on multilateral projects (such as projects with the World Bank and UN organizations).[89]

Although development organizations and the Swiss parliamentary finance committees have grappled in detail with the theme of effectiveness and have launched several initiatives for increased impact orientation,[90] there is still a high potential for improvement in most areas. There is no clear commitment to scientific support and evaluation for all programs in the 2017-2020 strategy, and individual references to Monitoring and Evaluation remain vague.[91] No obligatory consideration of scientific research findings is required in internal procedures, and impact reports are only available for a fraction of all projects.[92] At the time of writing, Switzerland still has no comprehensive strategy on impact orientation using scientific research. However, numerous attempts at increased impact orientation are apparent (like the SDC's Impact Award). In the following recommendations, we would like to contribute to accelerating these attempts and strengthening public trust in development cooperation long-term.



The SDC's Impact Award

To promote the use of impact evaluations by Swiss NGOs, the SDC along with NADEL (ETH) established an Impact Award.[93] Every two years, the 2-3 highest quality impact evaluations among all entries will be awarded a total of 100,000 francs. A jury of SDC representatives and independent academic experts evaluate the entries on the following standards: relevance of the research question, quality of the research design (especially the derivation of causal relationships), quality of plans to use the results, and cost-effectiveness of the study. The last tender was won by studies from Terre des hommes Lausanne and Vivamos Mejor.[94] Such Impact Awards and corresponding courses for NGOs are good at making the potential of impact evaluation in development cooperation more well-known. They should, therefore, be treated as a priority in the future.

Recommendation 1: Greater prioritization of projects with outstanding cost-effectiveness

Particularly cost-effective programs should be systematically promoted and prioritized. Scientific research shows that the international community neglects numerous highly effective interventions, particularly in the field of global health.[61,95,96] For instance, where health is concerned, a contribution of around U.S. $7,500 can save a life.[58]

Since the resources available to development cooperation are limited, prioritizing programs based on their cost-effectiveness should be enshrined as a central strategic goal. Development policy projects already have to meet a multitude of goals, including thematic goals (like climate change), country goals (like Rwanda), and transversal goals (like gender). Effectiveness should no longer play a subordinate role to such goals. On the

contrary, we should accept that certain other goals will not be fully met in the course of granting effectiveness the priority it deserves.

Existing high impact projects like the promotion of NETCELL by Switzerland or the German (and Swiss) involvement with the Global Fund should be further developed. It is also important to offer increased support to underfunded areas with high potential impact. Such areas include neglected tropical diseases,[97] micronutrient initiatives,[98,99] and direct cash transfers (not only in humanitarian aid but also in development cooperation). In 2015 German development cooperation spent a mere 320 million euro or 2.5% of net bilateral ODA on healthcare;[100] for the SDC in 2015, it was 12% of bilateral resources.[101] Both countries should significantly expand this commitment.

Recommendation 2: Earlier termination of demonstrably ineffective programs

Programs that are ineffective or barely effective according to current scientific research should be ended as quickly as possible. Because of political, legal, and procedural factors, this is not always an option; but demonstrably ineffective programs should be shut down ahead of time wherever it is possible. Every euro and every franc that has no impact could have been spent on projects with real impact. Both Switzerland and Germany are currently involved in several ineffective areas. One example is microcredit, which despite receiving a Nobel Peace Prize and a great deal of media interest is not an effective means of alleviating extreme poverty.[76] Such programs should be replaced with other microfinance products like saving programs or microinsurance.

From an evidence-based perspective, the 20 million francs spent annually on the purchase of Swiss milk powder for humanitarian aid is completely outdated.[102,103] It is not only ineffective, but it also has potentially negative effects, such as disturbing local markets.

In particular, direct cash transfers should be used as a benchmark wherever possible. Direct cash transfers (conditional and unconditional cash transfers, CCTs, and UCTs) are applicable in practically all countries and contexts and have proved highly effective in countless impact evaluations.[68] They are therefore well suited to acting as a comparative instrument in impact evaluations. For example, employment and training programs[104] and particular kinds of livestock donation[77,105] are less impactful than cash transfers, and should thus be replaced by the latter. A comprehensive review of all programs based on their effectiveness could be carried out in the course of a top-to-bottom review.[106]

Furthermore, projects in wealthier emerging economies are comparatively less effective—that is, projects in Upper-Middle-Income Countries (UMICs) like Turkey, Argentina or Peru. Switzerland and Germany currently still commit 20% of their development cooperation budgets to such countries,[100,107] although the same money could do much more good elsewhere. In the efficiency dimension of the QuODA assessment by the Centre for Global Development, Germany and Switzerland hence occupy lower positions (41st and 36th out of 44 respectively).[108] Development policy commitments should be transferred to those countries with the largest absolute number of people in extreme poverty (like India), regardless of average income per capita.[109]

Lastly, we should promote a “fail forward”-culture: if an evaluation shows a poor result, this should be recognized as an important learning success that allows for more effective allocation of financial resources.

Recommendation 3: Increased use of evaluations and the definition of higher quality standards

It is true that a large number of evaluations are carried out in Swiss development cooperation, but these are often of low quality: they use outmoded measurement techniques and measure only single outcome indicators, without comparing these to a control group. In these conditions, the quality of Swiss development cooperation cannot be satisfactorily ascertained. The situation is similar for German development cooperation. At least with GIZ, there is a certain awareness of the possibilities of the newest scientific research methods, although these are rarely implemented. In 2010 a randomized controlled trial was adopted on behalf of GIZ for the first time, and the office of Monitoring and Evaluation writes that there “are still few situations in the GIZ context, where RCTs can be used or are methodologically feasible

or financeable."[110]

Since April 2014, all of the GIZ projects commissioned by BMZ with a minimum duration of three years and a budget of 1 million euro have been subject to a so-called project evaluation (PEV), which is carried out from one year to six months before the end of the minimum duration. However, GIZ itself has demonstrated in a meta-evaluation of PEV that fundamental evaluation standards "are often not adhered to" and that PEV is characterized by a paucity of methods, mostly limiting itself to qualitative interviews and data and document analysis, while "quantitative surveys, on the other hand, are almost never used".[111]

To measure counterfactual impact, high-quality impact evaluations must be used. Ideally, these take the form of randomized controlled trials (RCTs), but with more complex questions quasi-experiments and various econometric methods can also be used.[112] On quality requirements, we refer to the checklist "The perfect impact evaluation" in this paper. As we have shown in chapter 1.4, both impact evaluations and RCTs are applicable to surprisingly many fields. The monitoring of both German and Swiss development cooperation actors should be modernized, for instance through the use of modern technologies for data collection. Mobile surveys for the beneficiaries of a development program are not only low-cost but also enable more exact information about the impact of projects. In consequence, impact information is less dependent on uncertain assumptions and estimates, being based instead on empirical data.[44]

High quality standards for evaluations should be explicitly enshrined in guidelines and strategies and be required wherever applicable. All evaluations should be openly published so that they can be reviewed independently and used globally. The necessary expertise could also be sourced externally from researchers and specialized organizations: for example, IDinsight supports governments with the design and execution of studies as well as the comprehensive implementation of successful pilot projects.[113] Since these investigations are financially somewhat more costly, the number of low-quality evaluations should be reduced in favor of fewer, higher quality ones. In addition, greater financial resources should be provided for evaluations in general (see Recommendation 5).

Recommendation 4: More comprehensive use of scientific research findings

Although staff members in development organizations generally show a great interest in scientific research, it is currently barely taken into account in internal processes. This leads to ineffective projects being initiated and then stopped far too late. Donors do not necessarily have to conduct evaluations themselves, but could instead make more use of the global knowledge base. A thorough examination of specialist literature should become standard practice in all processes, plans, and evaluations. Evidence-based methods should run through all phases of a project as a common thread—from the project outline to the finance application to the logical framework.

Impact matrices are often used in German and Swiss development cooperation, but too often there are no in-depth scientific foundations. Grounding impact matrices in the most current research findings available would represent a gain for the beneficiaries of the program, the development organization, and the researcher.

Organizational training on impact measurement and experimental and quasi-experimental methods should be promoted—for instance using J-PAL's executive education course[114] or MIT's online courses.[115] Systematic evidence and knowledge management can contribute to improving organizational expertise. An exceptional example of this is the recent cooperation between SDC and the ETH Institute NADEL, which produced an "Impact Award" among other things.[93] For projects of a certain size, a scientific advisory board could be consulted. The experience of other countries like Great Britain offers valuable lessons on the implementation of such changes.[116]

The standards a project must fulfill should also be clearly defined before it receives additional resources. The NGO "Evidence Action" only scales exemplary projects that meet the following criteria:[117]

1. "Peer-reviewed rigorous evaluations that demonstrate a clear causal effect between the intervention and the desired impact;
2. Related evaluations that add weight and context to the findings of the main research line;
3. Evidence from multiple settings and contexts

that inform our understanding of the resilience of a particular finding;
4. A compelling explanation of the mechanisms at play, whether they come from economic theory, market research, or medicine;
5. Confidence that a result holds in less controlled environments, and thus in real life, and persists over time."

These criteria should be logically applied to Swiss and German development cooperation projects.

Recommendation 5: Additional financial resources for research and evaluation

Research funding amounts to 16 million euro in the German budget; around 9 million euro are provided for evaluation.[118] Research and evaluation thus constitute a mere 0.4% of the BMZ budget. In Switzerland, research funding was 1.7% of the Swiss development cooperation budget in 2014.[101] Since even small investments in high impact evaluations can enable a massive increase in impact, a higher percentage of the budget should be spent on scientific research.

Here existing research programs should be built upon, like the research into neglected tropical diseases by Swiss TPH or the cooperation with the NADEL Center of ETH Zurich. The USA and Great Britain play a pioneering role in this area and could serve as an example: in April 2014 USAID created the "US Global Development Lab" and its subprogram "Development Innovation Ventures". The British DFID co-founded the Global Innovation Fund, and its new strategy focuses particularly on global public goods like research into neglected tropical diseases (NTDs).[119]

Both Switzerland and Germany should affiliate with international initiatives that carry out research and generate evidence, particularly the International Initiative for Impact Evaluation (3ie) and the Global Innovation Fund. The latter is now supported by the British, American, Australian, and Swedish governments, and the entry of Switzerland and Germany would be possible and highly recommendable.

In addition, many researchers, students, and specialists have ideas for the improvement of interventions; but lack the financial means to implement them. Even small unbureaucratic grants in the five-figure range would enable promising field trials to be carried out. Such experimental projects with explicit research components would not only generate globally useful scientific knowledge but also enable research teams to broaden their knowledge of evaluation. Such an innovation program could be started as a pilot and be developed according to the impact it demonstrated.

Budget reallocations are always heavily contested, which makes the implementation of this recommendation more difficult. On the other hand, the knowledge generated through evaluation contributes substantially to better budgetary decisions in future, such that investments in research pay off in the long-term.

Conclusion

We all share the same ultimate goal for development cooperation: the best possible, fastest possible and sustainable reduction in global poverty. We possess more knowledge and experience than ever on how to work towards a world without poverty. We also have a responsibility to use these research findings.

In this paper, we have presented suggestions on how this could happen in practice: high-quality scientific research should be better supported financially, and its content should be used more comprehensively; particularly effective projects should be promoted, and ineffective ones should be shut down in good time.

We do not promote a blind faith in numbers, but rather a better understanding of them: not everything relevant is measurable, and not everything that is measurable is relevant. It is important not to focus too much on individual calculations, but rather to consider the totality of the available research and to combine this with knowledge of context and field experience. If we integrate scientific findings with this overall approach, it creates a deeper understanding of the living conditions and needs of people living in poverty, thereby enabling more effective development cooperation. In doing so, we could take a decisive step towards the end of global poverty.

References

[1] UNICEF, WHO, World Bank & UN-DESA. (2013). Levels and Trends in Child Mortality. Retrieved from http://www.who.int/maternal_child_adolescent/documents/levels_trends_child_mortality_2013/en/

[2] United Nations. (2016). *The State of the World's Children 2016: A Fair Chance for Every Child.* United Nations Children's Fund, The (UNICEF).

[3] Our World in Data. (2016). A History of Global Living Conditions in 5 Charts. *Our World In Data.* Retrieved April 7, 2017, from https://ourworldindata.org/a-history-of-global-living-conditions-in-5-charts/

[4] Our World in Data. (2016). Declining Global Poverty. *Our World In Data.* Retrieved from https://ourworldindata.org/grapher/declining-global-poverty-share-1820-2015

[5] World Bank Group. (2016). *Poverty and Shared Prosperity 2016: Taking on Inequality.* World Bank Publications. https://doi.org/10.1596/978-1-4648-0958-3

[6] Ghosh, J. (2010, January 1). *Poverty Reduction in China and India: Policy Implications of Recent Trends.* Multimedia Library. United Nations Department of Economic and Social Affairs. Retrieved from https://www.un.org/development/desa/publications/working-paper/poverty-reduction-in-china-and-india-policy

[7] GiveWell. (2015, November). *Mass Distribution of Long-Lasting Insecticide-Treated Nets (LLINs).* Retrieved March 2, 2017, from http://www.givewell.org/international/technical/programs/insecticide-treated-nets

[8] GiveWell. (2015, November 6). *The Lack of Controversy over Well-targeted Aid.* Retrieved February 22, 2017, from http://blog.givewell.org/2015/11/06/the-lack-of-controversy-over-well-targeted-aid/

[9] Narayan, A., Dabalen, A. L., Revenga, A. L., Dikhanov, Y. M., Ferreira, F. H. G., Hamadeh, N., … Yoshida, N. (2015). *A global count of the extreme poor in 2012 : data issues, methodology and initial results (No. WPS7432)* (pp. 1–66). The World Bank. Retrieved from http://documents.worldbank.org/curated/en/360021468187787070/A-global-count-of-the-extreme-poor-in-2012-data-issues-methodology-and-initial-results

[10] Selim Jahan et al. (2016). *Human Development Report 2016: Human Development for Everyone (Human Development Reports)*. (W. Communications Development Incorporated, Ed.) (Vol. 2016). 1 UN Plaza, New York, NY 10017 USA: United Nations Development Programme. Retrieved from http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf

[11] Pinker, S. (2011). *The Better Angels of Our Nature: Why violence has declined* (Vol. 75). Viking New York.

[12] Rutschmann, O. T., Siber, R. S., & Hugli, O. W. (2009). *Empfehlung der Schweizerischen Gesellschaft für Notfall-und Rettungsmedizin (SGNOR) zur Triage in Schweizer Notfallstationen*. Schweiz Ärztezeitung, 90, 1–2.

[13] Christ, M., Grossmann, F., Winter, D., Bingisser, R., & Platz, E. (2010). *Modern triage in the emergency department.* Deutsches Arzteblatt International, 107(50), 892–898. https://doi.org/10.3238/arztebl.2010.0892

[14] DFR - BGer 9C_334/2010 vom 23.11.2010. (2010, November 23). Retrieved February 22, 2017, from http://www.servat.unibe.ch/dfr/bger/101123_9C_334-2010.html

[15] SGB V. (1988). Retrieved February 22, 2017, from https://www.gesetze-im-internet.de/sgb_5/__12.html

[16] KVG. (1994, March 18). SR 832.10 Bundesgesetz vom 18. März 1994 über die Krankenversicherung (KVG). Retrieved February 22, 2017, from https://www.admin.ch/opc/de/classified-compilation/19940073/index.html

[17] WHO. (2014). Making Fair Choices on the Path to Universal Health Coverage, 84. Retrieved from http://www.who.int/choice/documents/making_fair_choices/en/

[18] Ord, T. (2012). The Moral Imperative Toward Cost-effectiveness in Global Health. Retrieved from http://www.popline.org/node/566799

[19] Ohlin, G. (1970). The Evolution of Aid Doctrine. In J. Bhagwati & R. S. Eckaus (Eds.), *Foreign Aid* (p. 24). Harmondsworth: Penguin Books Ltd. Retrieved from https://www.cabdirect.org/cabdirect/abstract/19701804638

[20] Tollefson, J. (2015). Can Randomized Trials Eliminate Global Poverty? *Nature, 524* (7564), 150–153. https://doi.org/10.1038/524150a

[21] Easterly, W. (2001). *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics.* MIT press.

[22] Easterly, W. (2006). *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good.* Penguin.

[23] Deaton, A. (2013). *The Great Escape: Health, Wealth, and the Origins of Inequality.* Princeton University Press.

[24] Moyo, D. (2009). *Dead Aid: Why Aid Is Not Working and How There Is a Better Way for Africa.* Macmillan.

[25] Shikwati, J. (2006). *The Future of Africa in the World. Inter Regional Economic Network*. Retrieved from http://www.academia.edu/5951147/Inter_Region_Economic_Network_Topic_The_Future_of_Africa_in_the_World

[26] Sachs, J. (2005). *The End of Poverty: How We Can Make It Happen In Our Lifetime.* Penguin UK.

[27] Savedoff, W. D., Levine, R., & Birdsall, N. (2006). *When Will We Ever Learn? Improving Lives Through Impact Evaluation*. Center for Global Development. Retrieved from https://www.cgdev.org/publication/when-will-we-ever-learn-improving-lives-through-impact-evaluation

[28] Banerjee, A., & Duflo, E. (2011). *Poor Economics: a Radical Rethinking of the Way to Fight Global Poverty.* PublicAffairs.

[29] White, H. (2007). *Evaluating aid impact.* Development Aid: A Fresh Look.

[30] Fujiwara, T. (2015). *Voting Technology, Political Responsiveness, and Infant Health: Evidence From Brazil.* Econometrica: Journal of the Econometric Society, 83(2), 423–464. https://doi.org/10.3982/ECTA11520

[31] Chattopadhyay, R., & Duflo, E. (2004b). Women as Policy Makers: Evidence from a Randomized Policy Experiment in India. *Econometrica: Journal of the Econometric Society*, 72(5), 1409–1443. https://doi.org/10.1111/j.1468-0262.2004.00539.x

[32] Chattopadhyay, R., & Duflo, E. (2004a). Impact of Reservation in Panchayati Raj: Evidence from a Nationwide Randomised Experiment. *Economic and Political Weekly,* 39(9), 979–986. Retrieved from http://www.jstor.org/stable/4414710

[33] Duflo, E., Topalova, P., & Others. (2004). Unappreciated Service: Performance, Perceptions, and Women: Leaders in India. Massachusetts institute of technology (MIT). Department of economics. Retrieved from http://fieldexperiments-papers.s3.amazonaws.com/papers/00233.pdf

[34] Banerjee, A., Green, D., Green, J., & Pande, R. (2009). *Can Voters be Primed to Choose Better Legislators? Evidence from Two Field Experiments in Rural India.* Unpublished Paper. Retrieved from https://pdfs.semanticscholar.org/a204/eb3e92d382dd312790f47df9aefde657fd13.pdf

[35] Martinez-Bravo, M., i Miquel, G. P., Qian, N., & Yao, Y. (2011, April). *Do Local Elections in Non-Democracies Increase Accountability? Evidence from Rural China.* National Bureau of Economic Research. https://doi.org/10.3386/w16948

[36] Reinikka, R., & Svensson, J. (2004). *The Power of Information: Evidence from a Newspaper Campaign to Reduce Capture.* World Bank Publications.

[37] Olken, B. A. (2007). Monitoring Corruption: Evidence from a Field Experiment in Indonesia. *The Journal of Political Economy*, 115(2), 200–249. https://doi.org/10.1086/517935

[38] David, E., Markus, G., & Anna, P. (2015, October 6). The take-aways from four dozen papers on conflict and fragility in Africa in under 2,000 words. Retrieved April 21, 2017, from http://blogs.worldbank.org/impactevaluations/take-aways-four-dozen-papers-conflict-and-fragility-africa-under-2000-words

[39] Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Chapter 6: Institutions as a Fundamental Cause of Long-Run Growth. In Philippe Aghion and Steven N. Durlauf (Ed.), *Handbook of Economic Growth* (Vol. 1, Part A, pp. 385–472). Amsterdam: Elsevier. https://doi.org/10.1016/S1574-0684(05)01006-3

[40] Pomeranz, D. (2015). No Taxation without Information: Deterrence and Self-Enforcement in the Value Added Tax. *The American Economic Review*, 105(8), 2539–2569. Retrieved from http://www.ingentaconnect.com/content/aea/aer/2015/00000105/00000008/art00008

[41] Haushofer, J., Miguel, E., Niehaus, P., & Walker, M. (2017, February 12). General Equilibrium Effects of Cash Transfers in Kenya. AEA RCT Registry. Retrieved from https://www.socialscienceregistry.org/trials/505/history/13953

[42] J-PAL. Introduction to Evaluations. Retrieved February 22, 2017, from https://www.povertyactionlab.org/research-resources/introduction-evaluations

[43] Glennerster, R., & Takavarasha, K. (2013). *Running Randomized Evaluations: A Practical Guide.* Princeton University Press.

[44] J-PAL. Research Design. Retrieved February 22, 2017, from https://www.povertyactionlab.org/research-resources/research-design

[45] J-PAL. Transparency & Reproducibility. Retrieved February 22, 2017, from https://www.povertyactionlab.org/research-resources/transparency-and-reproducibility

[46] McKenzie, D. (2012). A Pre-analysis Plan Checklist. Retrieved 2017, from http://blogs.worldbank.org/impactevaluations/a-pre-analysis-plan-checklist

[47] McCullough, B. D., & McKitrick, R. (2009). *Check the Numbers: The Case for Due Diligence in Policy Formation.* Fraser Institute Toronto, Canada: Retrieved from http://www.rossmckitrick.com/uploads/4/8/0/8/4808045/thecaseforduediligence_fiedition.pdf

[48] Bamberger, M. (2006). *Conducting Quality Impact Evaluations Under Budget, Time and Data Constraints.* Independent Evaluation Group (IEG) working paper series. Washington DC; World Bank. Retrieved from http://documents.worldbank.org/curated/en/255551468178129539/Conducting-quality-impact-evaluations-under-budget-time-and-data-constraints

[49] Marcus, J. (2015, February 5). Putting the Problem of Bed Nets Used for Fishing in Perspective. Retrieved March 7, 2017, from http://blog.givewell.org/2015/02/05/putting-the-problem-of-bed-nets-used-for-fishing-in-perspective/

[50] Cohen, J., & Dupas, P. (2008, October). *Free Distribution or Cost-Sharing? Evidence from a Malaria Prevention Experiment.* National Bureau of Economic Research. https://doi.org/10.3386/w14406

[51] J-PAL. (n.d.-e). The Role of Exposure, Social Networks and Marketing Messages in Households' Willingness to Pay for Malaria Prevention in Kenya. Retrieved February 22, 2017, from https://www.povertyactionlab.org/evaluation/role-exposure-social-networks-and-marketing-messages-households-willingness-pay-malaria

[52] Dupas, P. (2009). What Matters (And What Does Not) in Households' Decision to Invest in Malaria Prevention? *The American Economic Review*, 99(2), 224–230. Retrieved from http://www.jstor.org/stable/25592403

[53] Dupas, P. (2014). Short-run subsidies and long-run adoption of new health products: evidence from a field experiment. Econometrica: *Journal of the Econometric Society*, 82(1), 197–228. https://doi.org/10.3982/ECTA9508

[54] Bhattacharya, D., Dupas, P., & Kanaya, S. (2013, February). *Estimating the Impact of Means-tested Subsidies under Treatment Externalities with Application to Anti-Malarial Bednets.* National Bureau of Economic Research. https://doi.org/10.3386/w18833

[55] Hawley, W. A., Phillips-Howard, P. A., ter Kuile, F. O., Terlouw, D. J., Vulule, J. M., Ombok, M., … Hightower, A. W. (2003). Community-wide Effects of Permethrin-treated Bed Nets on Child Mortality and Malaria Morbidity in Western Kenya. *The American Journal of Tropical Medicine and Hygiene*, 68(4 Suppl), 121–127. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/12749495

[56] J-PAL. Pricing Preventive Health Products. Retrieved March 7, 2017, from https://www.povertyactionlab.org/policy-lessons/health/pricing-preventive-health-products

[57] WHO. (2017). The Top 10 Causes of Death. Retrieved from http://www.who.int/mediacentre/factsheets/fs310/en/index1.html

[58] GiveWell. (2016, November). Against Malaria Foundation. Retrieved February 22, 2017, from http://www.givewell.org/charities/against-malaria-foundation

[59] Lucas, A. M. (2010). Malaria Eradication and Educational Attainment: Evidence from Paraguay and Sri Lanka. *American Economic Journal.* Applied Economics, 2(2), 46–71. https://doi.org/10.1257/app.2.2.46

[60] WHO. (2016). *World Malaria Report 2015.* World Health Organization.

[61] Hillebrandt, H. (2015, June 9). The Cost of Fighting Malaria, Malnutrition, Neglected Tropical Diseases, and HIV/AIDS, and Providing Essential Surgeries, Compared to Spending on Global Health. Retrieved February 22, 2017, from https://www.givingwhatwecan.org/post/2015/06/cost-fighting-malaria-malnutrition-neglected-tropical-diseases-and-hivaids-and

[62] Schweizer Freunde von TamTam. (n.d.). Schweizer Freunde von TamTam. Retrieved February 23, 2017, from http://tamtamafrica.ch/

[63] GFATM. (n.d.). GFATM - Globaler Fonds zur Bekämpfung von Aids, Tuberkulose und Malaria. Retrieved February 22, 2017, from https://www.eda.admin.ch/deza/de/home/partnerschaften_auftraege/multilaterale-organisationen/weitere-organisationen-netzwerke/gfatm.html

[64] Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung. (n.d.-b). GFATM. Retrieved February 22, 2017, from http://www.bmz.de/de/ministerium/wege/multilaterale_ez/akteure/wio/gfatm/

[65] Schweizer Bundesrat. (2016, August 23). Projekte. Retrieved March 7, 2017, from https://www.eda.admin.ch/countries/blueprint/de/home/internationale-zusammenarbeit/projekte.html/projects/SDC/en/2002/7F02377/phase5

[66] SwissTPH. (2017). Project Detail. Retrieved February 23, 2017, from https://www.swisstph.ch/en/projects/project-detail/project-action/detail/project-controller/Projects/project/netcell-phase-5-core-support-to-the-national-malaria-control-programme-in-tanzania/

[67] GiveWell. (2012, December). Cash Transfers in the Developing World. Retrieved February 23, 2017, from http://www.givewell.org/international/technical/programs/cash-transfers

[68] Bastagli, F. et al. (2016). Cash transfers: What Does the Evidence Say? https://doi.org/10.13140

[69] GiveDirectly. (2016). GiveDirectly: Operating Model. Retrieved February 23, 2017, from https://givedirectly.org/operating-model

[70] GiveDirectly. (2014, August 31). GiveDirectly: Efficiency. Retrieved February 23, 2017, from https://www.givedirectly.org/efficiency

[71] Schneider, R. (2014, November). Bar auf die Kralle. Retrieved February 23, 2017, from http://folio.nzz.ch/2014/november/bar-auf-die-kralle

[72] Haushofer, J., & Shapiro, J. (2016). The Short-Term Impact of Unconditional Cash Transfers to the Poor: Experimental Evidence from Kenya. *The Quarterly Journal of Economics,* 131(4), 1973–2042. Retrieved from http://qje.oxfordjournals.org/content/131/4/1973.short

[73] Haushofer, J., & Shapiro, J. (2013). Household Response to Income Changes: Evidence from an Unconditional Cash Transfer Program in Kenya. Retrieved from https://www.princeton.edu/~joha/publications/Haushofer_Shapiro_UCT_2013.pdf

[74] GiveWell. (2013, January 4). Cash Transfers vs. Microloans. Retrieved February 23, 2017, from http://blog.givewell.org/2013/01/04/cash-transfers-vs-microloans/

[75] Karlan, D. (2016, April 20). Entwicklungshilfe: Weniger Armut dank besserer Daten. Retrieved February 23, 2017, from http://www.spektrum.de/magazin/geld-und-gute-absichten-reichen-nicht-aus-um-armut-wirksam-zu-bekaempfen-datenbasierte-erfolgskontro/1405256

[76] J-PAL. (2015). Where Credit is Due. Retrieved March 2, 2017, from http://www.poverty-action.org/publication/where-credit-due

[77] Blattman, C., & Niehaus, P. (2014). Show Them the Money: Why Giving Cash Helps Alleviate Poverty. *Foreign Affairs*, 93, 117. Retrieved from http://heinonline.org/hol-cgi-bin/get_pdf.cgi?handle=hein.journals/fora93&section=70

[78] DFID. (n.d.). DevTracker Project GB-1-203029. Retrieved March 28, 2017, from https://devtracker.dfid.gov.uk/projects/GB-1-203029

[79] British High Commission Islamabad. (2015, July 22). UK's minister reiterates DFID support to Pakistan's national social safety net. Retrieved March 28, 2017, from https://www.gov.uk/government/world-location-news/uks-minister-reiterates-dfid-support-to-pakistans-national-social-safety-net

[80] Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung. (n.d.-a). Deutsche ODA-Leistungen. Retrieved February 23, 2017, from http://www.bmz.de/de/ministerium/zahlen_fakten/oda/leistungen/index.html

[81] Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung. (2016a). Bi- und multilaterale Netto-ODA an LDC 2011-2015. Retrieved April 21, 2017, from http://web.archive.org/web/20170421103521/http://www.bmz.de/de/ministerium/zahlen_fakten/oda/leistungen/bi_netto_oda_ldc_2011_2015/index.html

[82] OECD. (2016). *Development Co-operation Report 2016 | OECD READ edition*. OECD. Retrieved from http://www.keepeek.com/Digital-Asset-Management/oecd/development/development-co-operation-report-2016_dcr-2016-en

[83] OECD. (n.d.). The 0.7% ODA/GNI Target - a History. Retrieved April 21, 2017, from http://www.oecd.org/dac/stats/the07odagnitarget-ahistory.htm

[84] Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung. (2017). Deutsche ODA-Quote steigt bedingt durch die Flüchtlingsausgaben im Inland erstmals auf 0,7 Prozent. Retrieved April 21, 2017, from http://www.bmz.de/de/presse/aktuelleMeldungen/2017/april/170411_pm_040_Deutsche-ODA-Quote-steigt-erstmals-auf-0-7-Prozent/index.jsp

[85] Epo. (2017, April 11). OECD-Zahlen Dank Flüchtlingsausgaben erreicht Deutschland 0,7-Prozent-Quote für Entwicklungshilfe. Retrieved April 21, 2017, from http://epo.de/index.php?option=com_content&view=article&id=13693:oecd-zahlen-dank-fluechtlingsausgaben-erreicht-deutchland-0-7-prozent-quote-fuer-entwicklungshilfe&catid=45&Itemid=90

[86] OECD. (2015). *DAC-Prüfbericht über die Entwicklungszusammenarbeit: Deutschland 2015.* OECD Publishing.

[87] Rauch, T. (2015). Zur Reform der deutschen Entwicklungszusammenarbeit. Retrieved February 22, 2017, from http://www.bpb.de/apuz/200372/zur-reform-der-deutschen-entwicklungszusammenarbeit?p=all

[88] Entwicklungspolitik online. (2015, February 18). Querelen um DEval: Faule Forscher oder mangelnde Transparenz im BMZ? Retrieved February 22, 2017, from http://www.epo.de/index.php?option=com_content&view=article&id=11144:deval-2015&catid=45&Itemid=90

[89] Eidgenössisches Departement für auswärtige Angelegenheiten. (2017). *Öffentliche Entwicklungshilfe (APD) der Schweiz 2015 - 2016.* EDA. Retrieved from https://www.eda.admin.ch/content/dam/deza/de/documents/aktivitaeten-projekte/aktivitaeten/Oeffentlic_DE.pdf

[90] Finanzkommissionen der eidgenössischen Räte. (2016). Die Entwicklungszusammenarbeit unter finanzpolitischen Gesichtspunkten. Retrieved February 22, 2017, from https://www.parlament.ch/press-releases/Pages/mm-fk-n-s-2016-07-01.aspx

[91] DEZA. (2016). Strategische Ziele. Retrieved February 23, 2017, from https://www.eda.admin.ch/deza/de/home/deza/strategie/rechtsgrundlagen-gesetzeverordnungenundbotschaften/botschaft_zur_internationalenzusammenarbeitderschweiz/strategische-ziele.html

[92] DEZA. (2015). Wirkungs- und Jahresberichte. Retrieved February 23, 2017, from https://www.eda.admin.ch/deza/de/home/resultate_und_wirkung/wirkungs-_und_jahresberichte.html

[93] Impact Award. (2015). Announcement. Retrieved February 22, 2017, from http://www.nadel.ethz.ch/news/2015/06/impact-award.html

[94] Impact Award. (2015). Winners. Retrieved February 22, 2017, from http://www.nadel.ethz.ch/news/2015/06/impact-award.html

[95] Copenhagen Consensus Center. (2015). The Economist. Retrieved February 23, 2017, from http://www.copenhagenconsensus.com/post-2015-consensus/economist

[96] GiveWell. (2017). Cost-Effectiveness. Retrieved February 23, 2017, from http://www.givewell.org/how-we-work/our-criteria/cost-effectiveness

[97] Uniting to Combat NTDs. (2015). *The Third Report: Country Leadership and Collaboration on NTDs (No. 3)*. Retrieved from http://unitingtocombatntds.org/report/third-report-country-leadership-and-collaboration-ntds

[98] Taylor, P. N., Okosieme, O. E., Dayan, C. M., & Lazarus, J. H. (2014). Therapy of Endocrine Disease: Impact of Iodine Supplementation in Mild-to-Moderate Iodine Deficiency: Systematic Review and Meta-analysis. *European Journal of Endocrinology / European Federation of Endocrine Societies, 170*(1), R1–R15. https://doi.org/10.1530/EJE-13-0651

[99] Imdad, A., Herzer, K., Mayo-Wilson, E., Yakoob, M. Y., & Bhutta, Z. A. (2010). Vitamin A Supplementation for Preventing Morbidity and Mortality in Children from 6 Months to 5 Years of Age. *Cochrane Database of Systematic Reviews,* (12), CD008524. https://doi.org/10.1002/14651858.CD008524.pub2

[100] Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung. (11.2016). Bilaterale Netto-ODA nach Förderbereichen 2012-2015. Retrieved April 7, 2017, from http://www.bmz.de/de/ministerium/zahlen_fakten/oda/leistungen/bi_netto_oda_forderbereiche_2012_bis_2015/index.html

[101] Rordorf, M. (2016, May 31). Personal communication.

[102] SECO. (2017, January 25). Schweizerische Milchprodukte in der Nahrungsmittelhilfe. Retrieved February 23, 2017, from https://www.eda.admin.ch/deza/de/home/themen/landwirtschaft_undernaehrungssicherheit/nahrungsmittelhilfe/schweizerische-milchprodukt.html

[103] Alliance Sud. (2017, June 8). Entwicklungshilfe für Schweizer Milchproduzenten? Retrieved June 9, 2017, from http://www.alliancesud.ch/de/politik/entwicklungspolitik/entwicklungsfinanzierung/entwicklungshilfe-fuer-schweizer

[104] Blattman, C., & Ralston, L. (2015). Generating Employment in Poor and Fragile States: Evidence from Labor Market and Entrepreneurship Programs. https://doi.org/10.2139/ssrn.2622220

[105] Karnofsky, H. (2009, December 27). Gifts of Livestock (e.g. Heifer International). Retrieved March 28, 2017, from http://blog.givewell.org/2009/12/27/gifts-of-livestock-eg-heifer-international/

[106] Dunning, C. et al. (2015, July 20). Making USAID Fit for Purpose — A Proposal for a Top-to-Bottom Program Review. Retrieved February 23, 2017, from https://www.cgdev.org/publication/ft/making-usaid-fit-purpose-proposal-top-bottom-program-review

[107] Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung. (2016b). Bi- und multilaterale Netto ODA nach Ländern 2011-2015 (No. 2011 - 2015). Retrieved from http://www.bmz.de/de/zentrales_downloadarchiv/Ministerium/ODA/3_B4_Bi_und_multilaterale_Netto_ODA_nach_Laendern_2011_bis_2015.pdf

[108] Birdsall, N., & Kharas, H. (2014). The Quality of Official Development Assistance (QuODA). *Center for Global Development, Washington, DC,* 40. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/Quality-of-Official-Development-Assistance-Final.pdf

[109] Talbot, T. (2016, January 18). Give Aid to Poor People, Not Poor Places? Retrieved February 23, 2017, from https://www.cgdev.org/blog/give-aid-poor-people-not-poor-places

[110] Krapp, S., & Dinges, S. (2012). *Wirkungsmessung mit experimentellen Designs: - und deren Anwendung in der GIZ.*

[111] Deutsche Gesellschaft für Internationale Zusammenarbeit. (2016). Finaler Bericht der Metaevaluierungen der Projektevaluierungen. GIZ. Retrieved from https://www.giz.de/de/downloads/giz2016-de-Finaler_Bericht_Metaevaluierung_der_PEV.pdf

[112] Gertler, P. J., Martinez, S., Premand, P., Vermeersch, C., & Rawlings, L. B. (2016). I*mpact Evaluation in Practice, Second Edition (Vol. 2).* World Bank Publications. https://doi.org/10.1596/978-1-4648-0779-4

[113] IDinsight. (n.d.). What We Do. Retrieved February 22, 2017, from http://idinsight.org/services/what-we-do/

[114] J-PAL. Executive Education: Evaluating Social Programs. Retrieved March 7, 2017, from https://www.povertyactionlab.org/training/executive-education

[115] edX. (2016, August 10). Evaluating Social Programs. Retrieved February 22, 2017, from https://www.edx.org/course/evaluating-social-programs-mitx-jpal101x-4

[116] Jones, H. (2012). Promoting Evidence-based Decision-making in Development Agencies. *ODI Background Note.* Retrieved from https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7575.pdf

[117] Evidence Action. (2014). How Much Evidence Is "Enough"? Our 5 Factors for Assessing Impact. Retrieved February 22, 2017, from https://www.evidenceaction.org/blog-full/how-much-evidence-is-enough-our-5-factors-for-assessing-impact/

[118] Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung. (2015). Haushaltsplan 2015 - Einzelplan. Retrieved from https://www.bundeshaushalt-info.de/fileadmin/de.bundeshaushalt/content_de/dokumente/2015/soll/epl23.pdf#page=41

[119] Barder, O. (2015). Is the UK Putting Its Own Interests Ahead of the Poor in Its New Aid Strategy? Retrieved February 22, 2017, from https://www.cgdev.org/blog/uk-putting-its-own-interests-ahead-poor-its-new-aid-strategy

Graphs

Cost-effectiveness of different health programs

Lassi, Z. S., Kumar, R., & Bhutta, Z. A. (2016). Community-Based Care to Improve Maternal, Newborn, and Child Health. In R. E. Black, R. Laxminarayan, M. Temmerman, & N. Walker (Eds.), Reproductive, Maternal, Newborn, and Child Health: Disease Control Priorities, Third Edition (Volume 2). Washington (DC): The International Bank for Reconstruction and Development / The World Bank. https://doi.org/10.1596/978-1-4648-0348-2

Mosquito net usage rates

Dupas, P. (2009). What Matters (And What Does Not) in Households' Decision to Invest in Malaria Prevention? The American Economic Review, 99(2), 224–230. Retrieved from http://www.jstor.org/stable/25592403

Germany's public development aid

Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, B. (2017). Deutsche ODA-Leistungen. Retrieved February 23, 2017, from http://www.bmz.de/de/ministerium/zahlen_fakten/oda/leistungen/index.html

Switzerland's public development aid

Eidgenössisches Departement für auswärtige Angelegenheiten. (2017). Öffentliche Entwicklungshilfe (APD) der Schweiz 2015 - 2016. EDA. Retrieved from https://www.eda.admin.ch/content/dam/deza/de/documents/aktivitaeten-projekte/aktivitaeten/Oeffentlic_DE.pdf

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