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978-0-521-88772-4 - Solutions for the World's Biggest Problems: Costs and Benefits

Edited by bjørn lomborg

Excerpt

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Introduction

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The simple idea

A mayor has a million dollar surplus which he wants to allocate to a good cause. Dozens of groups clamor for the cash. One wants to buy computers for an inner-city high school. Another hopes to beautify a local park. A third would promote energy efficiency. Each group makes a persuasive case outlining the benefits they could achieve. What should the politician do?

The straightforward answer is to divide the cash into equal amounts. Intuitively, the idea seems fair: nobody will walk away empty-handed. But the obvious answer is probably wrong.

With more information, it is possible to quantify the spin-offs from each alternative. Some options will always be better than others. Shouldn't any extra money go first to the cause with the greatest social value? The idea is simple: with scarce resources it is necessary to prioritize.

On a larger scale, this is what underpins the Copenhagen Consensus. Imagine you had \$75bn to donate to worthwhile causes. You could do a tremendous amount of good. What would you do?

The world has many pressing problems. Governments and the United Nations have massive – but limited – budgets to reduce suffering. Even they tend to distribute any extra money thinly across different causes, often following the media's roving attention. A little extra is spent battling HIV/AIDS, malaria and malnutrition. Some more is devoted to stamping out corruption and conflict. Other cash is set aside for holding back climate change and warding off avian flu.

If politicians give everyone something, nobody complains. It's politically astute. But it may not be the best use of our resources.

The Copenhagen Consensus in 2004 was the first attempt to put this simple idea into action in a transparent way. A short list of ten major problems was devised and priorities agreed. The results – published

as *Global Crises, Global Solutions* – were thought-provoking. In turn this led to more focused Copenhagen Consensus events designed to assist the United Nations and Latin America. In 2008 a new global Copenhagen Consensus will take place, once again stocktaking the world's biggest problems.

Why should we prioritize?

Tremendous progress has been made in our lifetimes. People in most countries live longer, healthier lives; air and water quality in the developed world is generally getting better; and a much larger population is being adequately fed.

But there are still many problems to tackle. The minority of us lucky enough to have been born in the developed world take for granted universal education, an assured food supply and clean, piped water. Hundreds of millions of people are not so lucky. And although the world's problems fall disproportionately heavily on the developing world, rich countries also have their own problems, including drugs, conflicts and corruption.

When it comes to the globe's toughest issues, policy-makers have a huge list of spending possibilities akin to a gigantic menu at a restaurant. But this menu comes without prices or serving sizes. If an international agency spends \$10m on one project instead of another, how much more good will it do? Global leaders can rarely answer that question. They need better information and so do ordinary citizens. Economics gives us the tools to look at the costs of taking effective action and measure the expected benefits. When we know the costs and benefits, it will be a lot easier to choose the best projects – the projects which do the most good with the money available.

National governments prioritize all the time. Government revenues are finite and there are many competing demands for expenditure. Responsible economic management means balancing priorities between defense, education, healthcare and welfare. This prioritization is straightforward enough in a democratic nation state: although the debate may be vigorous and high-pitched, the result is an explicitly acknowledged trade-off between different segments of society and different problem areas for a share of a finite pot of money. There is widespread recognition that governments do not have infinite resources and that they must satisfy important social needs without running unsustainable deficits.

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But when we come to global welfare projects, the situation gets murky. We seem to believe that we can achieve anything, that the pool of money is infinite, and that everything should be tackled at once.

In effect, the majority of the big decisions are made by international agencies that receive money from rich nations and use it for the benefit of the world, especially developing countries. Each such organization has its own remit, scope of work and funding base. But most operate as independent silos. There is little incentive for cross-agency comparison. After all, there's little to be gained and much to lose if one organization's work turns out to be costlier or less effective than that of another. As a result, there are few attempts to contrast the work of, say, the United Nations Environment Program (UNEP) with that of the United Nations Educational, Scientific and Cultural Organization (UNESCO), and almost no overt efforts at comparing the outcomes achieved by development charities such as Oxfam and Médecins Sans Frontières.

Of course, in principle we ought to deal with all the world's woes. We should win the war against hunger, end conflicts, stop communicable diseases, provide clean drinking water, step up education and halt climate change. But we don't. We live in a world with limited resources and even more limited attention for our biggest problems.

This means we have to start asking the crucial question: if we don't do it all, what should we do first?

An explicit economic prioritization between the world's many different problem areas hasn't effectively been attempted outside the Copenhagen Consensus. In fact, the very idea of prioritization sparks considerable resentment. I think it's disliked because prioritization means we don't just work out where we should do more (which is seen as benevolent) but we also identify challenges that we should put aside for later (which is seen as cynical).

This view puzzles me; not talking about prioritization does not make it go away. We can only spend each dollar once, so we are actually prioritizing with every dollar we spend doing good. If we don't discuss our priorities then they just become murkier, less democratic and less efficient. Refusing to decide for ourselves explicitly what deserves our immediate attention means letting somebody else make that call. Often, the media sets decision-makers' priorities. That's wrong. Imagine doctors at a perpetually overrun hospital refusing to perform triage on casualties, instead attending all patients as they arrive and

fast-tracking those whose families made the most fuss. A failure to prioritize explicitly wastes resources and costs lives.

Choosing between alternative solutions to global challenges does not mean we should ignore the lower-priority ones. It is just that more people will benefit more quickly if the higher-priority items are tackled first. This will then free up resources to tackle the issues originally given a lower priority. Trying to deal with every challenge at once simply reduces the level of effective help.

Where should we prioritize?

Copenhagen Consensus focuses on the funding that the developed world spends on improving the world in general. Of course, most nations spend the vast bulk of their cash on themselves – perhaps 99 percent of developed nations' GDP. In a well-functioning political system, this internal spending already gets prioritized. Moreover, the relevant players are typically well represented – both donors (taxpayers) and a wide range of recipients – which allows for a clearly delineated debate about trade-offs.

However, the last 1 percent of spending – the portion that goes outside a nation's borders – is less well developed. This spending ranges from Official Development Assistance (ODA) to peacekeeping forces, research into tropical diseases and some attempts to alleviate cross-boundary environmental pollution and the like.

Here, the donors participate in a debate but the recipients typically do not, meaning their interests are instead represented by pictures and stories in the press. That only donors are present goes some way to explain why total spending is rather low. That the recipients are only represented in the media means that there is a tendency for resources to go to the places with the best and most accessible stories and the cutest pictures tugging at our heartstrings. One massive tsunami might get global attention and prompt millions of dollars of aid (and hundreds of foreign journalists) to pour in, while another tragic earthquake in a more remote region of the world will be all but forgotten, particularly if it happens when news bulletins are already crowded. Needless to say, this form of prioritization is not likely to achieve the most good.

Often, explicit prioritization is ignored altogether by policy-makers. The United Nations Millennium Development Goals (MDGs)

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consist of a long list of laudable things to achieve by 2015 (including halving the proportion of people living on less than a dollar a day, halving the proportion of people who suffer from hunger, ensuring that all boys and girls complete a full course of primary schooling, and reducing by two-thirds the mortality rate among children under five and the maternal mortality ratio). Achieving these important goals is estimated to cost around US\$40–70bn extra per year. That kind of funding isn't forthcoming. Because the goals aren't prioritized, the world is not attempting to knock off the most important one first – in fact, nobody's having a discussion about what the most pressing goal might be.

The MDGs are also not the only commitments the world has signed up to. Countries at the United Nations have signed major treaties including sustainable development (in Rio), climate change (in the Climate Convention Framework), the Convention against Transnational Organized Crime (Palermo), the International Convention for the Suppression of the Financing of Terrorism (New York) and biological diversity (Cartagena Protocol on Biosafety).

What should we prioritize?

This is the main topic of this book, and takes up the rest of the chapters. In the 2004 Copenhagen Consensus we tried to identify all the world's major challenges by scanning every major United Nations publication between 2000 and 2003: if an issue was sufficiently important to merit consideration at the Copenhagen Consensus, it was unlikely to have gone unmentioned in any UN publication, given that organization's commitment to tackle global problems. This scan resulted in a multitude of challenges being identified.

We narrowed this unwieldy list by considering only major issues with a global scope, capable of being defined, evaluated and addressed in a reasonably rigorous fashion. Of course, not all challenges were at the same level, and to some extent there is an overlap. This we considered unavoidable and harmless, since the goal of the list was didactic and meant only to inform the eventual list of opportunities. Moreover, some overarching "challenges" like poverty are not considered in their entirety, since they consist of many different subcategory problems that are more easily addressable like a lack of access to healthcare, education, water and free access to markets.

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One very plausible approach would be to identify the problem affecting the most people, and then try to solve that first.

However, tackling the “biggest” problems first doesn’t work. A challenge might be vast, but if we don’t have a good way of mitigating it, then we shouldn’t focus on it first. At the end of the day, the biggest personal problem each of us faces is that we will all die. Yet we don’t have good technology or knowledge to solve that problem, so therefore we don’t devote every waking second of our lives to warding off every conceivable form of the Grim Reaper.

Thus, instead of dwelling on the biggest *problems*, we should focus on identifying the best *solutions*. This is why all the chapters on individual challenges don’t just say “this is a big problem” but instead, “here are some of the smartest and most feasible solutions and this is what they would cost and what they would achieve.”

How do we prioritize?

It’s tempting to base our decisions on a utopian vision of an entirely different and much better world where all major challenges can be entirely wiped out. But embracing a solution to its fullest extent is often unrealistic and ultimately unhelpful. Providing drinking water to everyone in the world would probably be prohibitively expensive (getting piped water to the last family living on a mountain-top would be infeasible), but getting water to half of those without it might be a great idea.

That is why the Copenhagen Consensus process suggests we look at *partial* (or marginal) change – how we might make the world a somewhat better place, starting from where we are right now. This recognizes that most solutions do not completely solve a problem, but somewhat ameliorate it. The advantage of this reality-based approach is that partial solutions are achievable and our models are much better at predicting how much they could improve a problem.

At the heart of the Copenhagen Consensus, we ask ourselves a question that drives everything else: if we had an extra \$75bn to do good for the world over the coming four years, where could that money do the most good? The resulting prioritized list of solutions identifies where we could do the most good, the second-most good, etc.

This does not imply that we should only spend money on the top solution. While it is the best investment, all the solutions towards the

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top of the list are very good solutions, where we can achieve a lot with our money. What it does mean is that we should not spend money on, say, solution number 40, while we still haven't tackled 1, 2 and 3.

The Copenhagen Consensus does not make any decision on what would be an appropriate level of extra investment. If we only invested another \$10bn, the list would still make sense except we could not do as much. Likewise, if the world were to invest \$150bn, we could go even further down the list.

To rank these partial solutions, the Copenhagen Consensus process utilizes a cost-benefit analysis.

To some this sounds heartless. But in reality, it's just a way of trying to measure the expense and advantages of any suggested partial solution. While it is typically easy to find the cost of each approach (providing clean drinking water means spending money on piping, drilling, maintenance, etc.), it is often harder to measure the benefits in monetary terms (less sickness, more comfort, better hygiene, better productivity, societal consequences from less sickness, etc.). However, economists have worked hard to put prices on many of these outcomes, based on individual behavior (our own implicit valuation) or social behavior (society's implicit valuation). If we are to make meaningful comparisons between the vast array of different solutions to the world's many woes, measuring costs *and* benefits seems to be an efficient and transparent way to convey crucial information about these issues.

Problems of prioritization

The four biggest concerns expressed about economic cost-benefit analysis are simply put.

- How can you put a value on human life?
- How do you balance current and future needs?
- What about the interaction between different problems and their solutions?
- Should you really focus on economics when choosing?

These are questions which arise because of humans' natural compassion, and they deserve a proper answer.

We cannot wave a magic wand and make the world's problems disappear. Generally, there are no silver bullets. We have to focus resources

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on an achievable number of clear, realistic objectives if we are to make progress. The best tool to handle this prioritization is economic cost–benefit analysis.

This does mean that we have to put a value on costs and benefits to compare them. Refusing to put a value on human life does not help to save lives. In practice, prioritization occurs in healthcare and aid programs all the time. That's how we know, for example, that it makes much more sense to have a program of mass vaccination than to invest in clinics to treat people who are ill. Prevention is nearly always better and more cost-effective than curing.

One tool that helps us compare the burden of major challenges is the measure of the “Disability Adjusted Life Year” or DALY. The DALY adds up the years of life that are lost and the impact of disability.

Some people will still find this approach clinical and even distasteful, but difficult decisions need to be underpinned by the best possible framework, and this is the best we have at present.

How do we balance our own needs against those of future generations? In essence, there must always be some discounting: if not, we could eventually starve now to do better for our grandchildren. The problem comes in setting the actual discount rate. For commercial projects, it is considered normal to discount at the level of current or expected market interest rates. Economists often recommend a rate of 6 percent for discounting development projects, and we have also taken this as a baseline for our evaluation.

However, we have also asked our authors to use a rate of 3 percent for comparison. This lower rate means that projects which take longer to produce significant benefits still look attractive. Comparing the results for the two discount rates shows the sensitivity of the analysis to different assumptions and also gives us more information on which to base decisions. Which rate is more appropriate is a matter for debate, but the important thing is to have a consistent basis for comparison.

The issue of the discount rate becomes particularly important in the case of climate change. Proposed solutions to climate change show no benefits for several decades, but their ultimate value could be enormous. Conventional discounting, even at the lower rate we use, makes any intervention – which would have very high up-front costs – unattractive in cost–benefit terms. Some economists (including Sir Nicholas Stern in his 2006 report, *The Economics of Climate Change*)

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argue that it is wrong to value our needs above those of our grandchildren, and that we should effectively have a zero rate of pure time preference. Clearly, embracing this suggestion would mean we must make huge investments to tackle all future problems. Compare this to a problem like malaria where small immediate costs can lead to large benefits which begin to accrue quite quickly. In this case, normal economic discounting still makes the benefit–cost ratio attractive.

Although delineating twenty-three separate global challenges makes sense – because only in this way do we have a chance to make a proper analysis and prioritization – in practice, boundaries are not clearly defined. In particular, action in one area will have indirect positive effects in others. For example, supplying clean water to rural farmers can free women and children from the task of fetching water from far away, allowing more time for children to attend school. However, in principle all of these issues should be dealt with in the analysis of clean drinking water.

Clearly, any attempt to define and analyze the world's largest problem areas is open to criticism, but we believe that the Copenhagen Consensus has the merits of clarity, rigor and transparency and forms a good basis for decision-making. There are those who argue that the whole process is skewed against environmental issues because of their longer time horizons, but this is clearly not the case. At the end of the day, all the partial solutions tackled here will have short- and long-term costs and short- and long-term benefits. Dealing with malaria will not only help present generations but also improve the lives of future generations, as they stand on the shoulders of their healthier parents.

High-profile figures in the global debate – Jeffrey Sachs included – argue that only including economists in the Copenhagen Consensus is inappropriate, and that the prioritization should only be made by natural science experts in each of the different issues. The problem is that these experts lack a common denominator for setting priorities. If you ask a climatologist, you're likely to be told that climate change is the biggest issue facing the planet. If you ask a malaria expert, she will probably say malaria is the biggest issue. If we ask them jointly to make a decision where to allocate extra resources, we shouldn't be surprised if they choose the intuitive solution of the fictional mayor in the opening paragraph – spending half on each problem, neglecting the reality that one investment might do much more good than the other.

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I believe, along with all the members of the Copenhagen Consensus team, that there is a moral imperative to do global good in ways which will bring lasting benefits to as many people as possible, as quickly as possible. Because of the wide variety of projects which could be funded, economic cost–benefit analysis provides the best and most rational tool for comparison and decision-making. By bringing together expert economists who do not have specific interests in any one project, we hope that we can make progress towards a rational and transparent choice of which of the world's problems to tackle first.

Your part

We asked many international economists to tell us about each of the biggest challenges for humanity and what can be done. This book is the result.

The expert panel for the Copenhagen Consensus in 2008 will make their pick of the ten issues that will be studied in more detail. But we invite you to read all the chapters and make your own individual prioritization. You will find guidance on how to do this in the last chapter of the book.

We believe the Copenhagen Consensus process has much to offer policy-makers, philanthropic organizations and generous individuals. But it becomes much more powerful if more people get involved, not just by reading the results in the media, but by making their own judgments. There are no absolutely right answers. New studies will be done on challenges, new solutions will be identified, and fresh analysis will enable us to see things in a different light. It is the discipline of the process which is important. There are critical decisions to be taken, and these must be underpinned with a rational framework.

We believe this book is the broadest published look at the major challenges facing the world today. Even so, it is not entirely comprehensive: some of the problems we identified turn out to have received very little or no economic research. Surprisingly, these include the area of infrastructure, the lack of which can be a major barrier to development in many countries: there are simply too few economists working in this area. While the research for this book is therefore not complete, it at least gives us the ability to tackle the highest-priority challenges from an extremely wide range of areas, and it can thus make