

## Shoots, greens and leaves

*Rich countries prospered without worrying much about the environment. Poor and middle-income countries do not have that luxury*



ON THE southern shore of Lake Naivasha, Kenya's lush Rift Valley holds an unexpected scent of English summer. For inside vast plastic greenhouses grow mile upon mile of roses. Exported to Europe, they account for a fifth of the commercial roses sold there and provide a tenth of Kenya's foreign exchange. But the business is a victim of its own success.

Attracted by a scent more pungent than flowers, a quarter of a million Kenyans followed the rose growers into the valley, hoping to make money. To feed themselves, they ploughed the surrounding hills, felling the trees that filter and constrain the streams that flow into the lake; it is now polluted by silt and run-off.

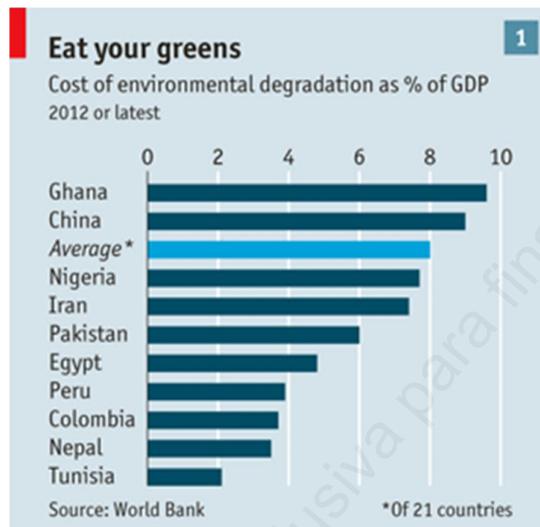
That might seem a classic story of development choked by the environmental damage it causes. But this one has a twist. The rose growers have started lending money to the smallholders, encouraging modern farming methods which leave the trees in place. Though it is early days, the results are promising; they benefit growers, small farmers and the lake.

Paying for environmental services is not a new idea. Pioneered in Mexico and Costa Rica, such projects keep clean the water supplies of many of Latin America's giant cities. In China's north-west, the Loess plateau, an area the size of France, was brought back from near-desert by paying farmers to stop uncontrolled grazing and to look after terraces and waterways. Local incomes doubled in a decade.

These schemes have a wider significance. They are examples of "green growth", an attempt to improve the often destructive relationship between economic development and the environment. In the run-up to the "Rio+20" conference on sustainable development in Brazil on June 20th-22nd, it has become the new mantra for business people and policymakers. But does it work?

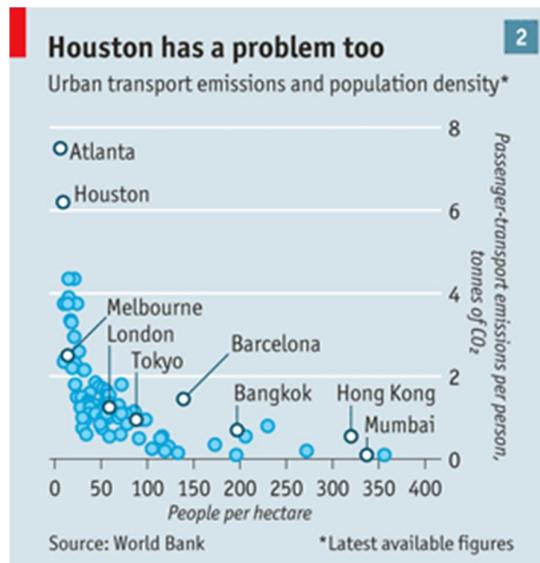
The central claim of "green growth" is that the course of industrialisation taken by Europe, America and other rich countries will not work for the rest of the world. Their route was "grow first, clean up later". Environmental concerns played almost no role in the early stages of industrialisation and remained weak until at least the 1960s. The Cuyahoga river in Ohio was so polluted that it caught fire as recently as 1969. That spurred the creation of America's Environmental Protection Agency.

The idea that environmental concerns are mainly for the rich is still powerful and persistent. It shapes parts of diplomacy. The Kyoto protocol on climate change exempted China and other developing polluters from obligations to cut greenhouse-gas emissions. It affects domestic politics. Costa Rica's former environment minister, Carlos Manuel Rodríguez, says Latin America's politicians can mess up on health, literacy and the environment but if they provide jobs and growth, they will get re-elected. And it influences economics, which long ignored the environment in its models of how economies work. In 1991 the chief economist of the World Bank, Larry Summers, even sent out a memo saying poor countries ought to import pollution from rich ones because the damage it did there would be less costly. (He said his sarcasm had been misunderstood.)



But the costs of waiting for a clean-up are rising, undermining the argument that poor countries cannot afford to go green. The Chinese Academy of Social Sciences reckons the total annual damage to China's economy from environment degradation is the equivalent of 9% of GDP (see chart). The World Bank says bad sanitation and water pollution cost India 6% of national income. Even ignoring the global impact of rising temperatures and falling biodiversity (see article), therefore, the local and national costs of environmental damage are alarming. Nicholas (now Lord) Stern, a British economist, said in a big report in 2006 that climate change would be a brake on growth. That prediction may already be coming true.

The brake is likely to get worse as countries grow richer. Most of the world's population increase in the next 40 years will be in developing countries. Two or three billion people will move into the middle class. This is two or three times as many as have achieved that status in the past 150 years. Many will want big cars, large air-conditioned houses and to eat meat, which uses up more water and land than grain does. This will put more stress on the environment in ways that will curtail growth. That would leave a lot of people poor and polluted—the worst of all possible worlds. Avoiding such an outcome is a problem for today, not tomorrow.



To see why, look at the implications of different sorts of urban design on pollution (cities account for 80% of all pollution so the way they are arranged matters a lot). Atlanta and Barcelona have roughly the same population. But in 1990 Atlanta sprawled over an area 26 times larger, and has expanded since. As a result, it produces far more pollution (see chart 2). The difference between a sprawling city and a compact one is fixed early in a city's development; once sprawl begins, it is hard to reverse. Choices about urban design last centuries (or for many decades in the case of roads and power stations). Asked to name the main cause of climate change, the mayors of São Paulo, Mexico City and Dar-es-Salaam replied urban design. Countries can no longer afford to wait until they get rich before worrying about urban design, or their energy mix. By then, it will be too late.

So though the advice to "grow first, then go green" may have made sense in an era when the industrialising population was 500m and growth relatively slow, it will not work when billions of people are following suit and economies are growing by up to 8% a year. Development has to be green from the start. In recognition of that, "green growth" plans are proliferating in poor and middle-income countries. Ethiopia hopes to double GDP by 2025, while keeping its greenhouse-gas emissions at 2015 levels. Lord Stern describes China's five-year plan (which hopes for growth of 7% a year in 2011-15) as the biggest contribution to greenhouse-gas reduction by any country. Green policies are no longer the preserve of the rich.

But just because something is fashionable does not make it useful. The real question about green growth is whether it can fulfil its promise that poor countries can have both greenery and prosperity.

The core idea is that the environment is another kind of capital. It makes a measurable contribution to output and should be accounted for, invested in, exploited efficiently and (ideally) increased in value.

This is controversial. Many do-gooding outfits are horrified at the idea of exploiting the environment, however efficiently. (Indeed, some might think exploiting it efficiently is worse.) They accuse green-growth proponents of "greenwashing capitalism" and insist the only way to safeguard the world's natural resources is to cut consumption.

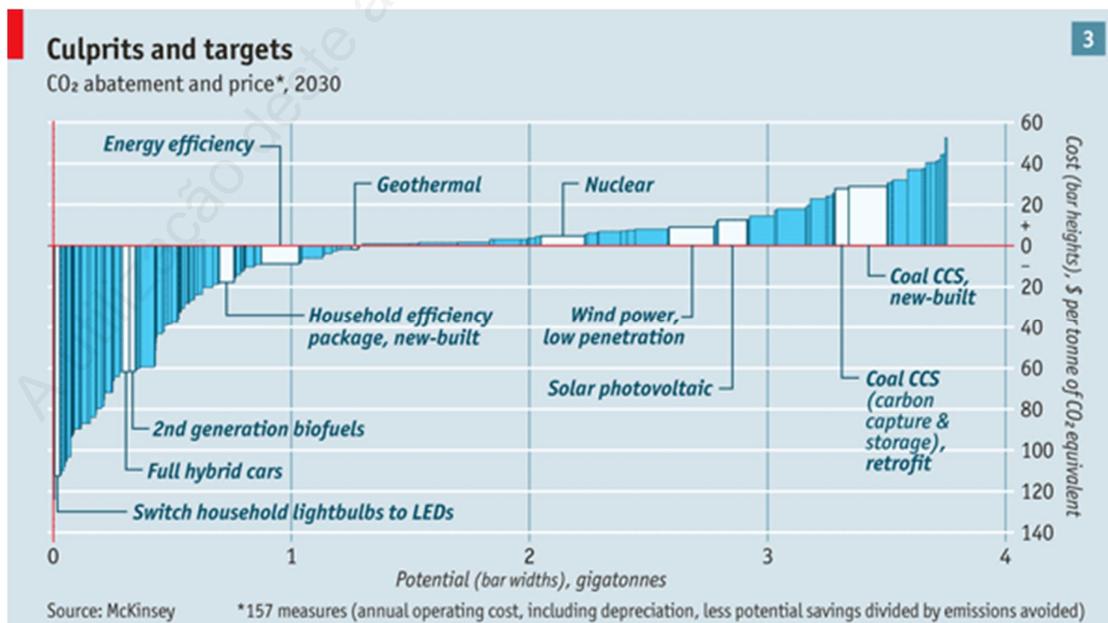
Some large countries resist green growth for the opposite reason. They think it means imposing Western environmental standards on them by stealth, stifling job creation and exports. Both sides agree on one thing: that greenery and growth are in conflict. A subtler criticism is that green growth is merely good economic housekeeping, with a lot of fuss about environmental costs that should be factored in anyway. To these critics, green growth is more like a slogan than a distinctive policy.

In response, green-growth advocates argue, in essence, that the evidence is on their side. Marianne Fay, the principal author of "Inclusive Green Growth", a new World Bank report, likens economists and environmentalists now to economists and anti-poverty campaigners in the 1990s. Then, she says, the campaigners stopped arguing for incentive-destroying policies like high minimum wages and instead started to promote social reforms like conditional cash-transfer schemes. These encouraged growth and cut poverty at the same time. In a similar way, green-growth advocates are now starting to abandon incentive-destroying demands about "degrowth", and are seeking policies that might work better.

Claire Melamed of the Overseas Development Institute, a think tank in London, expects this to mean that environmentalists will learn from anti-poverty campaigners. On the face of it, these two look different. Environmentalists set store by science, particularly the study of climate change. They have long-term goals (aiming to limit the rise in global temperatures over 50 years). They often adopt a hair-shirt approach to economics. In contrast, anti-poverty campaigners say poverty is a moral matter: it is wrong that a billion people should be hungry in a world of surplus food. They have shorter time horizons (the United Nations' millennium development goals span 15 years). And their economic policies aim to expand economic opportunities for the poor and for companies.

In some ways, green growth applies development-like features to environmentalism. It recommends fairly short-term projects, such as the reclamation works in Kenya's Lake Naivasha or China's Loess plateau. It pays a lot of attention to market and co-ordination failures, usually seen solely as economic matters. And it encourages the private sector.

In practice, this means looking for investment-hungry projects that bring high returns in broad environmental and narrow commercial terms. These are more numerous than the trade-off view of growth would suggest. McKinsey, a business consultancy, drew a cost-curve (see chart 3) for projects to cut carbon emissions. Those at the bottom are cheap as well as good for the environment (though ensuring that the people who pay for the investment reap the benefits is not straightforward). The biggest gains are in things influenced by consumer choice: hybrid cars, energy-efficient light bulbs and fridges. The International Finance Corporation, the private-sector arm of the World Bank, reckons that a 1% increase in building costs can cut energy and water bills by 20%. Other examples include drought-resistant crops and "no-take zones" in overfished waters. Drought-resistant crops (including genetically modified ones) reduce the amount of water plants draw from the soil—an environmental plus—and are hardier, raising returns to farmers in bad years. "No-take zones" let fish stocks recover and have been found to boost the incomes of fishermen in the surrounding area.



At the other end of the spectrum—where the environmentally friendly action is costly—are carbon capture and storage and generating solar power. These are a reminder that, however much policies can redirect resources towards greener growth, they cannot magically transform everything into a win-win. Trade-offs remain. But at least green-growth accounting should make them more open and explicit.

If so many profitable but green activities exist, why aren't companies rushing in? Part of the answer is that they are beginning to. According to a study for the United Nations Environment Programme, investment in renewable energy rose to \$257 billion in 2011, twice as much as in 2007. Over a third of that goes to poor and middle-income countries.

Some investment has doubtless been pulled in by special subsidies. Some reflects companies' fear of future higher oil prices, encouraging them to diversify into alternative energy as insurance. But a genuinely green private sector seems to be emerging slowly. Suntech, a Chinese company floated in New York in 2005, is now the world's largest supplier of solar panels. Khosla Ventures, an Indian venture capital company founded in 2004 has a portfolio of clean-energy investments ranging from power utilities to batteries and low-emission engines. Between 2000 and 2010, green-growth enthusiasts like to point out, the number of hybrid electric-car models increased from two to 30 and the number of "green buildings" certified by LEED, an international rating organisation, rose from three to 8,000.

The other part of the answer is that market failures, co-ordination problems and government subsidies deter businesses from choosing green growth. Lack of property rights can make it (apparently) rational to overuse resources such as the open sea or tropical forests, leading to over-exploitation and collapse (the so-called tragedy of the commons). A classic co-ordination problem appears in rented property. It should make sense for a landlord to insulate his house, since that would reduce electricity bills for a trivial outlay. But if his tenants pay the bills, they would capture the gains, so he does not bother.

At a national scale, developing a comparative advantage in one area can depend on public spending money in another. For example, Morocco ought to be able to create a solar-power business but that seems to require building power lines in poor parts of the country. Such institutional and market failures catch the attention of green-growth policymakers because they often explain why growth has harmed the environment.

### **The subsidy blight**

But these problems pale into insignificance compared with the impact of subsidies. The World Bank reckons governments subsidise environmentally and economically harmful activities to the tune of about \$1.2 trillion a year: \$500 billion on cheap fossil fuels; \$300 billion on cheap or free water; \$400 billion on fishing and farm subsidies (though not all of these are environmentally harmful).

To take one example: subsidies in China make fertilisers so cheap that farmers slather them on their fields. The crops cannot absorb them all; the excess runs into rivers and lakes, causing dreadful pollution (some Chinese lakes are bright green with algae). It would obviously save farmers money to use less fertiliser; the crops would not suffer; the water system would be healthier; so would the public purse: a win-win-win. But the clout of the fertiliser lobby and their agricultural allies in government resist that.

State subsidies are a \$1 trillion political-economy problem, rather than the result of an inescapable conflict between growth and the environment. That does not make them easy to solve. But green-growth proponents are betting that countries will be more likely to cut subsidies if their economies are growing and they have money to buy off the opposition, than if economic growth is flat and there is nothing to soften the blow.

In principle, green-growth policies should boost productivity and permit longer-term growth than other approaches. Using natural resources more efficiently ought to divert wasted capital to more productive investment. Spending on things like clean energy should boost innovation,

which is good for the economy as a whole. And, in theory, enhancing the value of natural capital is good for growth, just as any other sort of capital increase would be.

Still, doubts remain about green growth. First, it is not clear how far any policies rooted in improving efficiency can really go without proper prices for carbon, water and (in most poor countries) land. It is true that even the threat of carbon or water prices in itself making a difference, because companies cannot afford to find themselves suddenly having to pay, say, \$40 a tonne for carbon, without any preparation. They are therefore starting to use shadow prices. Still, no one has yet found a way to price basic inputs properly. And without them most green-growth policies will always be second-best.

Next, green-growth policies deal with local environmental problems better than global ones. The benefits of, say, watershed management can be captured nationally now, but the future benefits of lower greenhouse-gas emissions are dispersed in place and time. So worries about how far green growth can deal with climate change are partially justified.

Moreover, green growth depends on the idea that it is possible to value the environment accurately enough for companies to take proper account of environmental costs. That is a nice idea. But "natural capital accounting" has some way to go. Statisticians and accountants have agreed on general auditing principles but these are not yet detailed enough for companies.

All that said, green growth remains an improvement both on what exists now (which in many poor countries is practically nothing) and what environmentalists have often demanded in the past. Poor and middle-income countries know full well that their environment is degraded, their cities sprawling and their water supplies running out. They also know that to try to solve such problems by cutting growth would be to commit political suicide and condemn today's poor to a hopeless future. Green growth offers the best hope that the countries facing the sharpest conflicts between prosperity and preserving the environment can square the circle.

**Fonte: The Economist, London, v. 403, n. 8789, p. 68-70, 16-22 Jun. 2012.**