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**G**reenview, our online column on the environment, appears on Economist.com on Mondays. The columns can be viewed at [www.economist.com/greenview](http://www.economist.com/greenview)

## Environment and development

# How green is their growth

**A new argument that economic progress can help to ease environmental woes, just so long as the governance is good too**

**C**AN poor countries afford to be green? That is a question which politicians in the developing world have often asked rather pointedly. To them, it seems that the obsession of some rich types with preserving forests and saving cuddly animals like pandas or lemurs, while paying less attention to the human beings living nearby, is both cynical and hypocritical.

There is, of course, plenty of evidence that greenery and growth are not polar opposites. After decades of expansion in China and other fast-emerging economies, some of the negative side-effects and their impact on human welfare, above all the death toll caused by foul air and water, are horribly clear (see page 41). Yet the relationship between growth and the state of the environment is far from simple.

Some new light has been cast by a team of researchers led by Daniel Esty of Yale University, who delivered their conclusions this week to the World Economic Forum in Davos, Switzerland. What they presented was the latest annual Environmental Sustainability Index, which grades the "environmental health" of 150 countries—using many indicators, from population stress and eco-system health to social and institutional capacity. This year's report focuses on the link between the state of the environment and human health.

In a nutshell, what the new report (also sponsored by the European Commission and Columbia University) suggests is that

poor countries have been quite right to challenge the sort of green orthodoxy which rejects the very idea of economic growth. Indeed, the single biggest variable in determining a country's ranking is income per head. But that doesn't imply that economic growth automatically leads to an improvement in the environment.

The team's finding is that growth does offer solutions to the sorts of environmen-

tal woes (local air pollution, for example) that directly kill humans. This matters, because about a quarter of all deaths in the world have some link to environmental factors. Most of the victims are poor people who are already vulnerable because of bad living conditions, lack of access to medicine, and malnutrition (see story on next page). Among the killers (especially of children) in which the environment plays a role are diarrhoea, respiratory infections and malaria. These diseases reinforce a vicious circle of poverty and hopelessness by depressing production. According to the World Bank, the economic burden on society caused by bad environmental health amounts to between 2% and 5% of GDP.

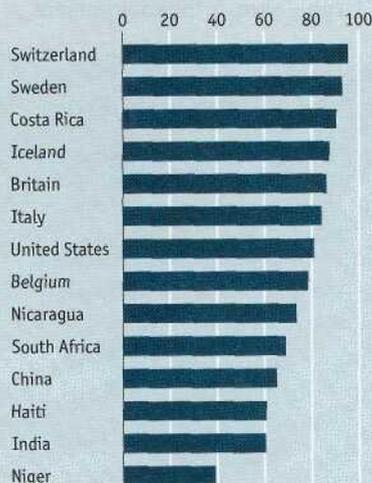
Mr Esty's analysis suggests that as poor countries get richer, they usually invest heavily in environmental improvements, such as cleaning up water supplies and improving sanitation, that boost human health. (Their economies may also shift gear, from making steel or chemicals to turning out computer chips.)

But the link between growth and environmentally benign outcomes is much less clear, the study suggests, when it comes to the sort of pollution that fouls up nature (such as acid rain, which poisons lakes and forests) as opposed to directly killing human beings. The key to addressing that sort of pollution, Mr Esty argues, is not just money but good governance.

A closer look at the rankings makes this relationship clearer. Of course it is no surprise that Switzerland fares better than Niger. But why is the poor Dominican Republic much healthier and greener than nearby Haiti? Or Costa Rica so far ahead of Nicaragua, whose nature and resources are broadly similar? And why is wealthy Belgium the sick man of western Europe, with an environmental record worse than

### The rich man's grass is greener

Environmental performance index, 2008  
Selected countries, 100=best



Source: World Economic Forum, Yale and Columbia Universities

The Vatican and

## A flustered flock of pigeons

**How to talk to Muslims (and others); Catholics seem unsure**

WHEN 138 Muslim scholars sent an open request to leaders of the Christian world, from Catholics to Methodists, for a theological dialogue, they knew they were setting a cat among the pigeons. It was a fair bet that senior Christians would soon be looking over each other's shoulders, anxious not to be too liberal or too harsh in their reply.

And something like that has happened. America's Southern Baptists have blamed mainstream Protestants for responding too warmly; and even the usually well-organised Catholics have been less than co-ordinated. The Vatican's point man on inter-faith relations, Cardinal Jean-Louis Tauran, initially saw little scope for talking to Muslims about theology. But Pope Benedict xvi later agreed to receive some of the Muslim signatories. That process will start soon.

Easily the boldest Catholic response to the Muslim letter has been an essay by an Australian Jesuit scholar, Daniel Madigan, published this month. He took

seriously the Muslim idea of a dialogue based on the commands of Jesus of Nazareth to love God and one another. Important as these commands were, they were not the basis of the Christian faith: God's love for man was a more basic point, the Jesuit argued. But for all his quibbles, he did engage with the Muslims\* theological views in earnest

As the largest of the Catholic church's religious orders, the Jesuits like to test the limits of dialogue. Before his death in 2004, a Jesuit pioneer of Catholic thinking on Hinduism, Jacques Dupuis, suffered many scoldings from the Vatican's doctrinal enforcer: then called Cardinal Joseph Ratzinger; now pope.

The Jesuits' new superior-general, elected this month, also exemplifies the order's belief in living "at the frontiers" of culture: like another recent holder of that office (who fell out badly with the Vatican bigwigs), Adolfo Nicolás is a Spanish expert on Japan. He takes office in interesting ecumenical times.

> that of many developing countries?

A mixture of factors related to good government—accurate data, transparent administration, lack of corruption, checks and balances—all show a clear statistical relationship with environmental performance. Among countries of comparable income, Mr Esty concludes, tough regulations and above all, enforcement are the key factors in keeping things green.

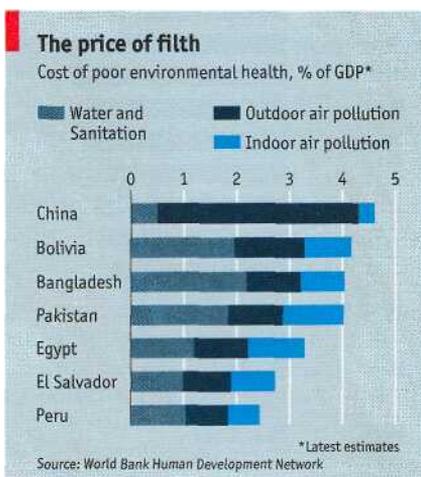
All this may be a helpful way of looking at pollution in the classic sense, but there is another factor that may upset all previous calculations about the relationship between growth and the state of the earth: climate change. Greenhouse emissions do not poison people, or lakes or woods, in the direct or obvious way that noxious chemicals do. But at least in the medium term, they clearly alter the earth in ways that harm the welfare of the poor.

Paul Epstein of the Harvard Medical School says the impact both on nature and directly on humanity of global warming will swamp all other environmental factors. As alterations in the climate lead to mass migrations, epidemics will spread; as temperate zones warm up, tropical diseases like malaria will surge; storms will overwhelm sewer systems; heat waves will push ozone levels up.

He may be right, but here too economic growth, coupled with good governance, may yet prove to be a source of solutions rather than problems. At the moment, per-

haps 2 billion people have no formal access to modern energy—they make do with cow dung, agricultural residue and other solid fuels which are far from healthy. Unless foresight and intelligence are applied to the satisfaction of these people's needs, they may embrace the filthiest and most carbon-emitting forms of fossil-fuel energy as soon as they get the chance.

A mixture of economic growth and transparent governance may offer the only chance of avoiding that disaster. Indeed, everyone will gain if poor countries find a way to leapfrog over the phases of development which in so many other places did terrible harm to the environment, *m*



Malnutrition

## The starvelings

**Hunger has an even bigger impact on children's health than was thought**

BADAAM lives in the Indian province of Rajasthan. Tetanus killed one of her children in infancy; another is weak from diarrhoea, caused probably by the custom of keeping mother and baby isolated for a month after birth. Yet she is one of the lucky ones: a charity, Save the Children, has been keeping her family alive with food and nutritional advice.

UNICEF, the United Nations' children's agency, said this week that fewer than 100 children died before their fifth birthday in 2006—probably the lowest rate ever, and certainly the smallest number since records began in 1960, when twice as many under-fives died, out of a world population half today's level.

Good news—but it could have been still better. Malnutrition is by far the biggest contributor to child mortality, present in half of all cases, says the World Health Organisation. New research in the *Lancet*, a British medical journal, suggests it may be one of the "big bills left on the sidewalk"—to borrow the phrase that Mancur Olson, an economist, used for describing easily reaped but neglected benefits.

One paper, by Robert Black of Johns Hopkins University and others, reckons underweight births and inter-uterine growth restrictions cause 2.2m child deaths a year (around one every 15 seconds). Poor or non-existent breastfeeding explains another 1.4m. Other deficiencies—lack of vitamin A or zinc for instance—account for 1m. In all, that is 3.5m deaths (once you strip out double counting)—one-third of total child mortality.

Hunger causes disease as well as death. According to the *Lancet*, malnutrition in the first two years is irreversible. Malnourished children grow up with worse health and lower educational achievements. Their own children also tend to be smaller.

Previous estimates of hunger's impact were higher, but they treated it as something which exacerbates the problems of diseases such as measles, pneumonia and diarrhoea. Those illnesses were seen as the causes of death; malnutrition counted as a contributing factor. But malnutrition actually causes diseases as well, and can be fatal in its own right. This is the impact the *Lancet* authors seek to identify. Overall their findings confirm and quantify the WHO'S view that hunger is the gravest single threat to the world's public health.

But they do more than that. As the *Lancet* and UNICEF both make clear, dealing

with hunger hardly requires a doctorate in the biochemistry of the human body. Breast-feeding advice, food supplements and better hygiene all make a big difference. Most countries know what to do and run pilot programmes that work. But they rarely find the money for full-scale national efforts; the international outfits that might help are, in the *Lancet's* words, fragmented and dysfunctional.

Yet if the research is right, money for improving nutrition would be the most effective sort of aid around. At the moment, roughly \$300m of aid goes to basic nutrition each year, less than \$2 for each child below two in the 20 worst affected countries. In contrast, HIV/AIDS, which causes fewer deaths than child malnutrition, received \$2.2 billion-\$6? per person with HIV in all countries (including rich ones).

Focusing on nutrition and mortality also makes sense, says April Harding of the Centre for Global Development, a Washington-based think-tank, because it forces policymakers to pay attention to health-care systems as a whole, rather than trying to save children "one disease at a time". Given the scale of the crisis, the case for aid organisations redirecting money and attention to the problem of hunger looks compelling. •

### Military helicopters

## Getting boots off the ground

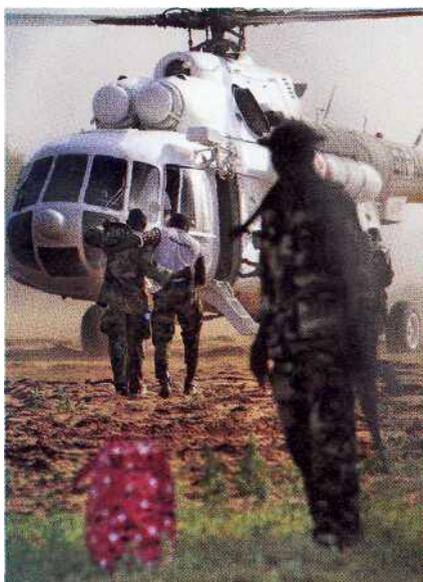
### Choppers are vital—and hard to find

**M**OVING troops across southern Afghanistan usually involves a giddy mountain-hugging flight in a transport helicopter—preferably escorted by a mean Apache attack helicopter. Despite the risk from old-fashioned ground fire, particularly in narrow valleys, a ride in a chopper is still better than land travel on ambush-ridden or non-existent roads.

Western military operations in Iraq and Afghanistan would be much riskier, and probably impossible, without the widespread use of helicopters. No NATO meeting passes without a request for the allies to send more choppers to Afghanistan. But even comparatively well-equipped Western forces, such as Britain's, have been stretched to find enough machines.

The situation is even more acute for the United Nations. Its peacekeepers need the power and mobility that helicopters offer in remote, rough places but find it increasingly difficult to beg and borrow enough.

After much delay, the UN has started to deploy to the bloodied wilderness of Darfur, in western Sudan, to beef up the 7,000



Take me out of here quick

African Union peacekeepers and create a hybrid force of 26,000 troops. Foot soldiers have been fairly easy to find, but no country has yet provided the 18 transport and six attack helicopters that the UN requested. Without such airlift, the new force may be as powerless as the one it replaces. In neighbouring Chad and the Central African Republic, a parallel European Union peacekeeping mission struggled to find choppers until France—the main contributor to the mission—reluctantly stumped up ten aircraft. UN officials now doubt they could launch another peacekeeping mission in, say, Somalia.

Is there a real lack of helicopters, or just too little political will? Richard Gowan, of New York University, notes that sub-Saharan countries have many wars but hardly any helicopters; traditional UN troop contributors, such as India, are close to the limit of what they can supply; some Western countries such as America and Britain are overstretched in Iraq and Afghanistan; while others are reluctant to become involved in fighting, be it counter-insurgency or tough peacekeeping.

America has thousands of helicopters but is already worried about its ballooning, billion-dollar bills for wear and tear on its military equipment (and the administration flinches at the thought of military involvement in yet another Muslim country). European NATO countries have more than 1,000 transport helicopters, but still rely heavily on American airlift in Afghanistan. That reflects the outdated design of their armed forces, still focused on territorial defence against a Soviet invasion; military plans assume a defined front line with rear staging areas supplied by road. In Iraq and Afghanistan, however, there are no front lines and road convoys everywhere are among the most vulnerable targets.

Worse, flying in new conflict zones is

harder than in Europe. Helicopters perform poorly in hot weather and at high altitude. Both apply in Afghanistan in summer months. Even in low-lying Iraq, British forces found that their Lynx helicopters, designed to carry a dozen soldiers, could manage one passenger at best during the summer heat. Among European NATO arsenals, few helicopters have defensive equipment such as flares and chaff to deflect shoulder-held anti-aircraft missiles.

Helicopters are expensive and delicate machines requiring heavy maintenance, especially when flying in dusty conditions. That means that each aircraft needs about 30 ground crew, who in turn have to be protected from attack. Countries are reluctant to endanger such valuable—and vulnerable—assets, particularly in uncertain or unpopular missions.

Britain is slowly withdrawing from Iraq, but finds itself fighting an unexpectedly hard campaign in Afghanistan, where it forms the second-largest foreign contingent. In the scramble to find more helicopters, it has taken over six Merlin search-and-rescue helicopters ordered by Denmark. It is also fixing the costly botched procurement of eight heavy-lift Chinook helicopters, grounded in 2001 because they could not be certified as safe.

Other big European allies are deployed in the quietish north of Afghanistan, and reluctant to become involved in the fight in the south. France and Italy, moreover, say they are heavily committed in other operations, for instance in the Balkans, in southern Lebanon and now in Chad.

For UN peacekeeping, Western countries generally prefer to send money rather than troops and vital equipment. The bulk of the UN'S manpower comes from Asian countries such as India, Pakistan and Bangladesh. India is already the biggest donor of helicopters to the UN, while Pakistan is busy fighting militants in its tribal areas. "The situation would change overnight if China, which is starting to get involved in peacekeeping, were to lend some of its helicopters," says Mr Gowan. Another source might be Russia, Ukraine and other former Soviet-block countries, which have plenty of helicopters, but have so far offered few of them.

For now, the UN makes up the shortfall by hiring private firms to provide helicopter transport. Such commercial aircraft are not insured to fly in combat zones, even to pick up wounded soldiers. But the UN is loth to hire attack helicopters privately; it would seem—horrors—like hiring mercenaries. Yet when 500 UN peacekeepers in Sierra Leone were taken hostage in May 2000, it was not just the arrival of British paratroopers that turned back the advancing rebels; it was the unsung actions of a South African mercenary, strafing and rocketing the rebels from his Soviet-made Mi-24 "Hind" attack helicopter. •