



NEW DIRECTIONS

Ideas and innovations

Tired of consuming?

Personal action



Jobs

Open to all

Driving change

TUNZA

the UNEP magazine
for youth. To view current
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**Partners for Youth
and the Environment**



UNEP and Bayer, the German-based multinational involved in health care, crop protection and high-tech materials, are working together to strengthen young people's environmental awareness and engage children and youth in environmental issues worldwide.

A partnership agreement, originally signed in 2004 and renewed in 2007 and 2010, runs through 2013. It lays down the basis for UNEP and Bayer to implement the projects under the partnership. These include: TUNZA Magazine, the International Children's

Painting Competition on the Environment, the UNEP Tunza International Youth and Children's Conferences, youth environmental networks in Africa, Asia Pacific, Europe, Latin America and the Caribbean, North America and West Asia, the Bayer Young Environmental Envoy Program and a photo competition, 'Ecology in Focus', in Eastern Europe.

The long-standing partnership between UNEP and Bayer has become a public-private partnership that serves as a model for both organizations.

EDITORIAL



Scientist James Lovelock was the first to think of the workings of our planet as one. He called it Gaia. The wider scientific community prefers to call it the Earth System, describing it as an interactive whole, vulnerable to the ‘butterfly effect’ – when even an action as small as the beating of a butterfly’s wings can have major and often unforeseeable consequences.

Think about your food. What we do on our farms affects not just the soil, but water, air and the atmosphere, biodiversity, and the whole supply chain that gets the food to your kitchen. Then there’s the energy you need to cook, and waste-disposal and refrigeration systems to deal with left-overs. And all these things – including what’s in your food and has been added to it – affects your health as well as the planet’s. Although most of us prefer to separate our thinking into topics – energy, pollution, water, biodiversity, health – the Earth System doesn’t work like that.

To squeeze the maximum from every productive square centimetre, we apply fertilizers and pesticides. But what are we doing to the bugs on which other organisms depend? As we pick up every last grain and kill the plants we don’t want, what happens to the birds that live on them and play a vital role in spreading their seeds? And what does poisoning the fungi that thrive on recycling natural wastes do to the whole Earth System?

Increasingly, we live in towns and cities and pay scant attention to the Earth System that supports us. Food comes from stores, energy is just a switch away, and for many, but no means all, water comes from taps while wastes just disappear. Are we grateful for an ever easier life? Do we stop to wonder what effect our demands have on the Earth System?

Perhaps ever-increasing specialization means we only consider the question that is being asked. Biodiversity or the effects of air pollution on health aren’t really a priority for an agriculturalist asked to increase food production, a transport expert considering how to speed up deliveries, or a finance ministry whose main concern is ensuring economic well-being and growth. But they should be.

As everything we do impacts the Earth System, we can’t just leave it to others. We have the tools to make our voices heard – whether by having a ‘right to vote’ or by using Twitter, Facebook and other social media. But we also have to open our minds and lives to change. Most changes won’t seem big, but together they will be fundamental. Try living the change – it’ll be exciting.



Driving change

Water shortages, air pollution, deforestation, toxic dumps, exhausted soils... you name it, we've got it. We've been talking about it for half a century, and trying to do something about it, too. Treaties and agreements abound...

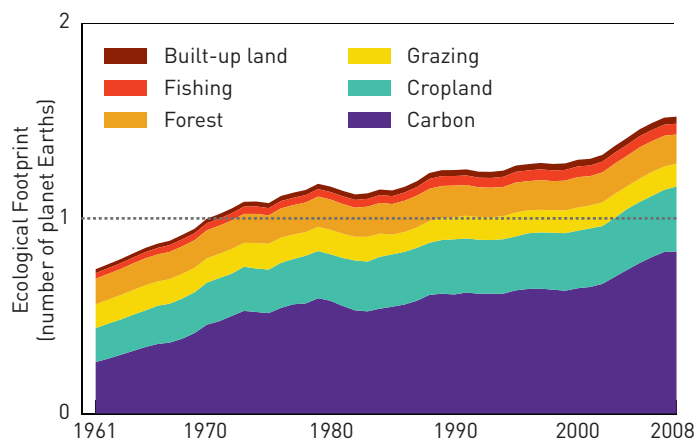
C. Fournier/UNEP/Topham

BUT for every environmental success – such as the mending of the ozone hole over Antarctica – there seem to be ever more disasters. For every target reached, there are dozens left unmet. UN Secretary-General Ban Ki-moon recently announced that three of the Millennium Development Goals – on poverty, slums and water – have been achieved three years ahead of schedule. But this year UNEP's fifth *Global Environment Outlook (GEO-5)* found that of 90 of the most important international environmental objectives, significant progress had been made in only four.

So are we going about it the wrong way? Are we looking at the immediate causes of the problems – for example mining leading to soil contamination, or excessive water use making rivers run dry – when we should be looking at the underlying causes, the real reasons for environmental change?

UNEP's *GEO-5* thinks so. It suggests that until we are prepared to examine

Figure 1 The world's rising footprint



WWF Living Planet Report 2012

'We are using 50 per cent more resources than the Earth can provide, and unless we change course that number will grow very fast – by 2030, even two planets will not be enough to provide for the 9 billion people who will then inhabit Earth.'

Jim Leape, Director General of WWF

the primary drivers of environmental degradation and then do something about them, humanity will just be running to catch up with itself. *GEO-5*

identifies these drivers as the rising global population and the linked drive for growth, commonly expressed as consumption and production.

Population growth

JUST 40 YEARS AGO, 3 billion people lived on Earth. Now there are more than 7 billion, and the most optimistic UN projection suggests there will be at least another billion by 2040. There could even be 10 billion by then.

Considering how rapidly we've expanded, it's amazing that we didn't run out of food decades ago. Actually, we've more or less managed to keep

up, doubling agricultural production since 1960 without increasing the amount of land being used. But can we continue to keep up, given the expected population growth and the new demand for biofuels? How do we reconcile our demand for food with the need to preserve the natural ecosystems on which we and the rest of the natural world depend?

And where will all the extra people live, or get their water? Both land

and freshwater are finite, and the same is true of practically all the other materials the Earth provides. Anyone can see that things can't go on as they are.

So what can we do? We know that education and economic opportunities for women are vital for reducing family size. Urbanization, too, can help. But the key to reducing population growth – as Professor Malcolm Potts, the first Medical Director of the International Planned Parenthood Federation, knows from experience – is the simple, and relatively inexpensive, universal provision of contraceptive services. All women, he says, whatever their

'Family size plummets when consumers are offered a range of appropriately priced contraceptive options through convenient channels.'

Professor Malcolm Potts

level of education or economic circumstances, understand that dividing meagre resources amongst an ever-growing family means that nobody flourishes. The World Bank calculates that up to 26 per cent of people in developing countries have no access to contraception, so addressing this unmet need could have a huge impact on our ability to live within our means.

We all have to make responsible population choices, not only about what is best for us, our partner and our families, but also for our planet and future generations.

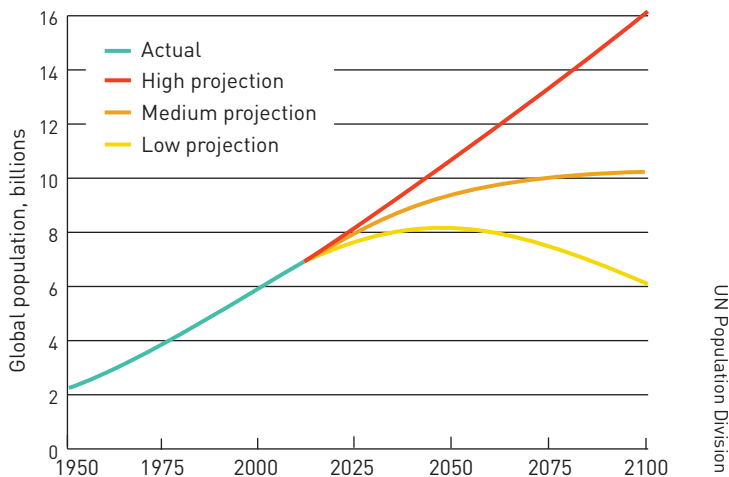
Consumption and production

THE WAY WE LIVE is also crucial. It is not only our numbers, but our lifestyles that drive the growing demand for resources – food; shelter and clothes; energy to keep warm or cool and for lighting and cooking; water; transport; and gadgets like washing machines and mobile phones. But we never seem able to say ‘enough’. Even in developed countries, people continue to want more.

Politicians emphasize that economic growth is the only way forward. But that seems to mean ever greater use of resources just to keep our economies going. And with almost half of all people living on less than \$10 per day, how will it be possible for everyone to attain a reasonable standard of living without totally depleting the Earth’s resources?

Moving to a green economy seems a promising approach. It implies, for example, enhancing public transport and introducing more renewable-energy technologies. It means raising building standards to reduce the energy used for cooling or heating, setting standards that encourage industry to get more from less, and improving technologies to reduce the use of valuable and finite materials. These changes will involve investments with long pay-back times, so they may generate complaints from both business and tax payers and could be politically

Figure 2 The world’s rising population



‘Sustainable development cannot be successful if the increase in global population continues to put pressure on the world’s non-renewable resources.’

Dr Fred Sai, UN Population Award Laureate and President of the International Planned Parenthood Federation

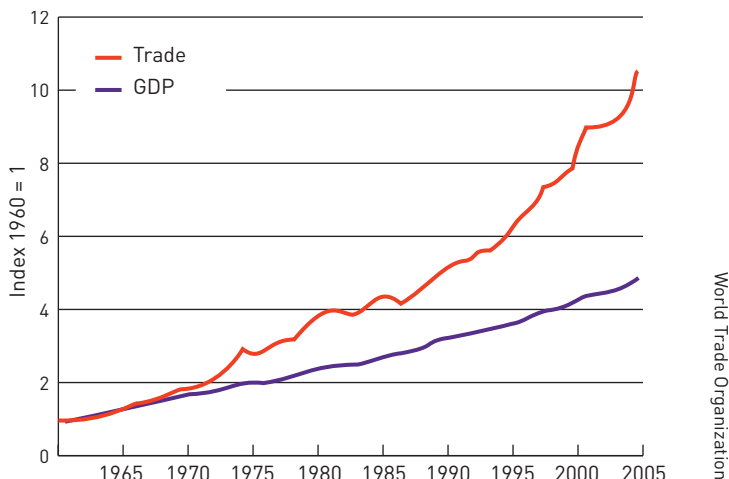
unpopular. But we need sustainability awareness in *everything* we do – and in everything we *all* do. We can’t just leave it to others.

Rather than just satisfying our immediate, and often transitory wants, we must think of the longer term. Instead of grabbing the cheapest products, or what we think we fancy, we must try to choose locally sourced and quality goods. What’s so bad about having fewer clothes that last a bit longer? Or why not use the bus or the train, and only hire or borrow a car when you really need one? Or compost your food wastes

for your own or your friends’ home-grown vegetables rather than buying chemical nutrients?

Sounds simple? Well it could be, but it is also fundamental. It means changing the deeper attitudes and habits developed over two generations of rising life expectancy and affluence. It means thinking differently, changing our minds and allowing them to change, then acting on it – and getting others to do so, too. Are you up for that? An increasing number of people, including business leaders, realize there is no alternative, no Plan B.

Figure 3 The world’s rising trade



We, the people



When Thomas Robert Malthus, an 18th-century English priest, noticed that over a period of three years, he'd performed rites for 57 births but only 12 deaths, he theorized that agricultural production couldn't possibly keep up with such population growth, and that the resulting starvation and disease would bring human numbers back to sustainable levels. Malthus may have been surprised to see the way scientific and technological advances have resulted in ever lower mortality rates – contributing to a staggering 7 billion people on the planet. Meanwhile, according to WWF's *Living Planet Report 2012*, we are already using up 1.5 planet's worth of resources.

Debate rages about how to approach this dilemma. Some, such as Canadian environmental thinker David Suzuki, say that population itself isn't the problem, but overconsumption and waste. If more people learn to make do with less, there would be enough for all. Many believe education is the answer, as educated women in all cultures tend to have fewer children. And some thinkers, such as TUNZA contributor Fred Pearce, point out that global fertility rates are already dropping – half the world's women are having two children or fewer – and believe the world's population will begin to fall.

But should we be making a more concerted effort to reduce our ecological footprint, not just by consuming and wasting less, or by investing more in education, but also by taking personal responsibility for the population problem? What do young people think about having children? We put the question to you to find out how environmental considerations are factored in to your plans to start a family. Here's what you said.

Victoria Wong, UK and France

'At first, the decision to have a baby seemed like the natural next step into womanhood. But while the idea appeals to me, I've realized my child will become another resource-using person, and might want to have many children as well. And the thought that I'd be bringing life into a crowded world with already limited resources terrifies me. There's still not enough awareness about the environment, food stocks, or how to properly use what we have still available. I worry my descendants won't have enough to eat, that we'll leave them a world where apples and broccoli are only a distant memory.'



Victoria Wong

Tribute Birdie Mboweni, Bayer Young Environmental Envoy (BYEE), South Africa

'Born and raised in multicultural South Africa, I've grown to realize that, despite our differences, certain values are shared across cultural groups – including the expectation that a woman will get married and have children. I love children, but I don't plan to have my own. Every week there's news of a child being raped or killed, and I get nervous just thinking about raising a child in a society where I will constantly worry about its safety.'

'I also worry about the pressure on natural resources by the ever-increasing human population. The high demand for food and other resources means we are continually working on ways to produce more. Are these ways always healthy? Having children might contribute to this not so healthy supply-and-demand cycle.'

Tribute Mboweni



Aswin Chandrasekharan, India

'Children bring joy and meaning to life. I think I'd settle for two – simply because I'm an only child and always yearned for a sibling. I believe that if all families practised the principle of two children per couple, at least in developing nations such as India, then we'd see a net reduction in energy consumption and maybe even an increase in per capita energy allowance. But the only way to prevent environmental damage due to overpopulation is creating awareness across nations, cultures and classes.'



Aswin Chandrasekharan

María Rosa Reyes Acosta

A doctor's view



Renzo Guinto

TUNZA asked **Renzo Guinto** – contributor, BYEE and newly qualified medical doctor – about his thoughts on population.

‘Populations with optimal size are better prepared for adapting to climate change: environmental education is easier to conduct, and health systems catering for smaller groups are less burdened when natural calamities strike.’

‘For 14 years, my country, the Philippines – now a nation of 94 million and one of the most populous in the world – has been stuck in a longstanding debate on whether to pass a Reproductive Health Bill. The proposed legislation – which aims to make reproductive health information and services accessible, especially to the poor – has been criticized by Catholic groups. Meanwhile, the positive relationship between a bigger population and economic development has long been debunked.’

‘The UN’s *Human Development Report 2011* identified reproductive choice as a way to avert environmental degradation and ensure sustainability. While the Reproductive Health Bill was originally designed to prevent unnecessary pregnancy-related deaths, a closer look at its environmental benefits reveals a convincing argument that population management protects Earth, too.’



María Rosa Reyes Acosta, BYEE, Ecuador

‘We are witnessing the destruction of our biosphere every single day. Knowing I am part of the problem encouraged me to seek solutions since I was little. Once I became a mother, my perspective changed, because I realized this is a legacy we leave to our heirs. As a consequence, I’ve stopped searching for solutions and decided to become one. The contribution of each human being is the key to achieving balance between humans and nature. This is the message I must transmit to my son.’

Alonso Lizaraz, Tunza Youth Advisory Council (TYAC), Venezuela

‘Having a child is a biological call we all feel. I think I will procreate when I’ve settled down and am in a strong position to give my child the best, knowing that he or she will face challenges in a constantly changing world. I grew up loving nature even when the “green boom” wasn’t as strong as it is now – I thank my parents for that. Their values are always with me, and I try to inculcate them in others. They will also be the basis of my child’s education. It’s a way to thank nature, and thank my parents.’



Alonso Lizaraz

Linh Do, TYAC, Australia

‘If I ever have children – and I doubt I will – it would only be two at most, only because I wouldn’t want an only child. Adopting might be an option. Having a baby is one of the most high-impact things you can do environmentally, especially in the developed world. But aside from environmental impact, there are bigger life questions to consider first.’

Transhumanism

The transhumanist movement asserts that we have the technology to extend human life indefinitely, eliminating aging. TUNZA asked biogerontologist and transhumanist **Aubrey de Grey** what he thinks the consequences might be if everyone decided to live forever.

‘People often fear that progress in medicine will have serious demographic consequences, increasing the burden of health care as more people live longer and are kept alive in a debilitated and expensive state of health. However, the truth is that the more we succeed in postponing age-related ill health with medicine, the more this risk will be averted. Women the world over are already having fewer children on average, and are having them later; as these trends accelerate, population increases will be curtailed and the environment will benefit.’



Yaiguili Alvarado García

Yaiguili Alvarado García, Panama

‘Being environmentally conscious, I’ve always had an internal conflict about having children. But the moment came, and I had my daughter. I’m raising an environmentally active girl. She’s almost two, loves nature more than anything, and helps to separate waste for recycling! Will we have more children? Adopt? I’m not sure, but whatever the size, my family will live in the greenest way possible.’

‘I do believe it’s necessary to break taboos that work against having fewer children. Most low-income families don’t know much about world population and family planning, so they tend to have many children and not enough resources. It’s not only about the environment but quality of life, for us and all the world’s species.’



Linh Do

What WE really, really want

TUNZA asked what attitudes and values guide you, young people, in dealing with the pressure to consume and the need to develop independent lifestyles. Here's some of what you told us.



What do you value more, things or experiences? How does this affect your career choices?

'Any new experience makes me happy. Travelling has always impressed and humbled me. It's so interesting to see people tackle problems differently. I need to meet new people, from different backgrounds. I also need to contribute to making a better world, whether environmentally or simply making it happier. If my career allows both, you'll find me "working" long after retirement.' *Chucky Bartolo, Tunza Youth Advisory Council (TYAC)*

'I am most excited about social entrepreneurship. For too long we have separated philanthropy from for-profit companies. Many, however, are beginning to see the need to create self-sustaining (meaning not grant-dependent) enterprises that create social and environmental change.' *Lisa Curtis, TYAC*

'Going freelance gave me undreamt-of opportunities – helping a Scout camp in Swaziland, Africa; leading a humanitarian effort in Sikkim, India; running turtle conservation projects in Terrangganu, Malaysia... It was the best decision I ever made. I tell friends "the best job in the world is one that you go to without thinking it is work. That way, you will not have to work a single day in your life."' *Tan Sijie, Scout*

'I want to develop projects involving communities in planning the proper use of natural resources, taking advantage of ancestral knowledge and improving the quality of their lives. I want to educate youth and children so that they can have opportunities to make society fairer.' *Maria Boa, TYAC*



Titus

What's the difference between need and want?'

'Unfortunately, these lines have been blurred by consumerism. Wants are no longer confined to seemingly un-touchable luxuries, but have evolved into common statements of need: "I need a smartphone, I need an iPad." Really? Absolutely not! If we don't clearly redefine needs and wants, present and future generations will grow up in a make-believe world of

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