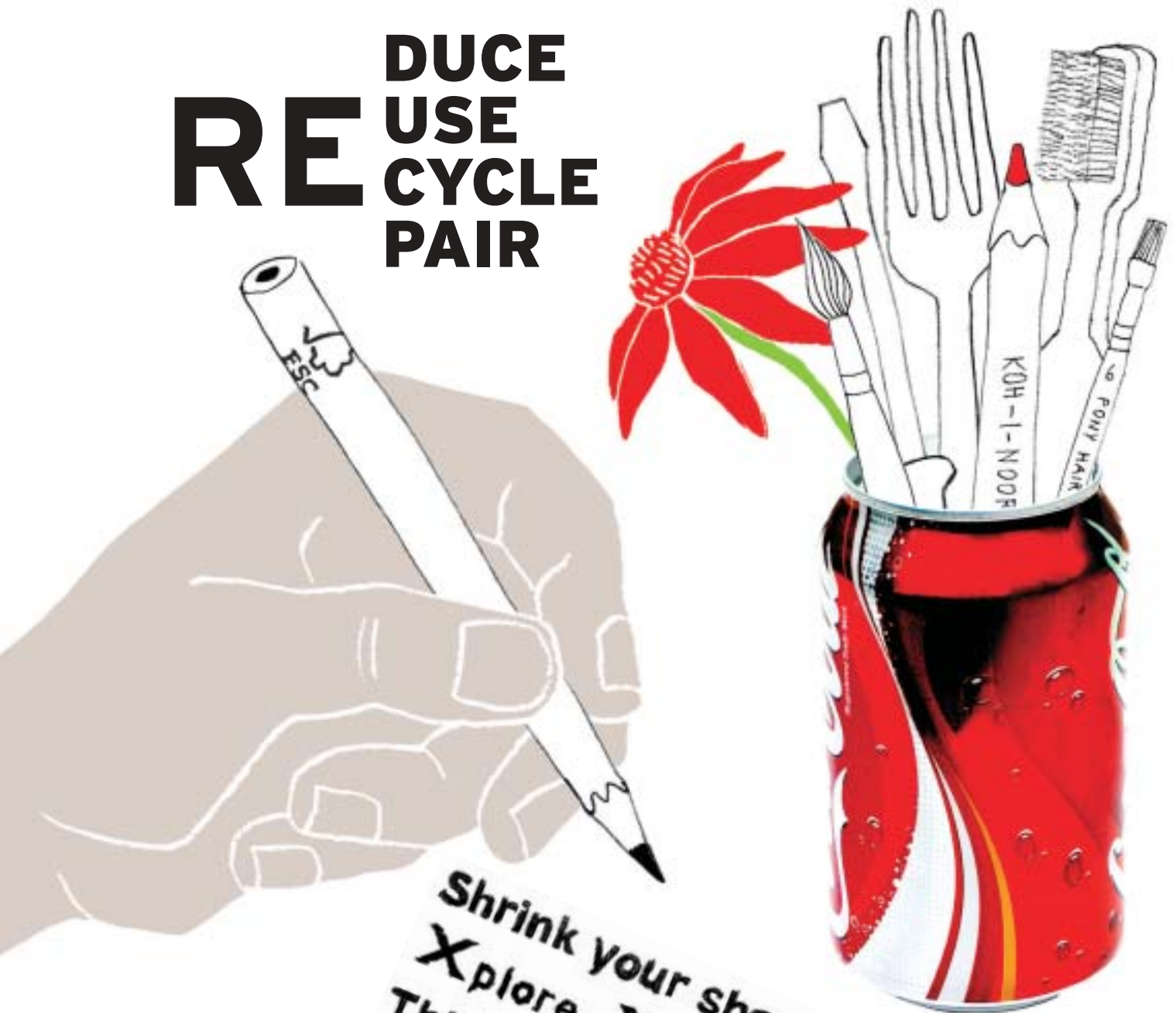


TUNZA

for young people • by young people • about young people

RE DUCE USE CYCLE PAIR



Shrink your shoe size!
Xplore, Xcite, Xtend
Think globally, eat locally
Fashioning fashion
Life cycle of a CD



TUNZA

Vol 2 No 3

Reduce Reuse
Recycle Repair

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United Nations Environment Programme (UNEP)
PO Box 30552, Nairobi, Kenya
Tel (254 20) 621 234
Fax (254 20) 623 927
Telex 22068 UNEP KE
E-mail cpinfo@unep.org
www.unep.org

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Director of Publication Eric Falt
Coordinator Wondwosen Asnake
Editor Geoffrey Lean
Guest Editor Caroline Ang
Nairobi Coordinator Naomi Poulton
Special Contributor Nick Nuttall
Circulation Manager Manyahleshal Kebede

Youth Contributors Gary Ang, United States; Maila Q. Beniera, Philippines; Cécile Bordier, France; Lara El Saad, United Arab Emirates; Lucy Grayton, UK; Orszi Ihász, Hungary; Pierre Jeanmougin, France; Nisrine Kaderrehay, India; Permuya Kampel Kirasi, Kenya; Julie Krocova, Czech Republic; Débora Maia Periera, Brazil; Michal Przybycin, Poland; Jen Schofield, UK; Erzsebet Szilagyil, Hungary; Tomislav Tomasevic, Croatia; Jindrich Vodicka, Czech Republic; Hyung Won Lee, Republic of Korea; Dong Xiaotong, China

Other Contributors Tony Cragg; Patrizia Lugo Loprieno, META; Isabella Marras, UNEP; Matthew Pinsent; Rosey Simonds and David Woolcombe, Peace Child International

Design Jana Vodickova

Web Editor Graham Barden

Production Banson

Head, UNEP's Children and Youth/Sport and Environment Unit Theodore Oben

Printed in the United Kingdom

Front cover Jana Vodickova

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UNEP and Bayer, the German-based international enterprise involved in health care, crop science and material science, are working together to strengthen young people's environmental awareness and engage children and youth in environmental issues worldwide.

A partnership agreement lays down a basis for UNEP and Bayer, who have collaborated on projects in the Asia and Pacific region for nearly ten years, to step

up current projects, transfer successful initiatives to other countries and develop new youth programmes. Projects include: TUNZA Magazine, the International Children's Painting Competition on the Environment, the Bayer Young Environmental Envoy in Partnership with UNEP, the UNEP TUNZA International Youth Conference, youth environmental networks in Asia Pacific, the Eco Forum in Poland and a photo competition, 'Ecology in Focus', in eastern Europe.



**Partners for Youth
and the Environment**



editorial: **Being part of the solution**

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We are in the midst of an unprecedented consumer revolution. In less than half a century personal spending on goods and services has increased more than fourfold, and now stands at over \$20 trillion a year. Some of this rise was due to population growth, but most of it comes from rising prosperity among the wealthier people of the earth.

We must consume to survive. And the two fifths of the world's people who have to live on less than \$2 a day desperately need to consume more. But over much of the world consumption has become an end in itself, and sometimes reaches bewildering levels: in the United States, for example, there are now more cars than there are licensed drivers. Overconsumption in the world as a whole is increasingly overwhelming the planet's life support systems. Research by UNEP and WWF shows that it had exceeded the earth's ecological capacity by the early 1980s and has gone on increasing since. It is only sustained by drawing down reserves, such as depleting groundwater stored for millennia. Clearly this cannot go on.

The crisis is not just down to the world's most developed nations. UNEP research has identified a global 'consumer class' of some 1.7 billion people, more than a quarter of the world's population, almost half of them in developing countries. Here consumption has gone well beyond meeting needs and is driven by a search for social status, pleasure and gratification. Yet all the evidence shows that once people break out of poverty, rising consumption does not increase happiness; in fact levels of overwork and stress grow along with the ever mounting waste and garbage.

We - the editors and readers of this magazine - are overwhelmingly members of this consumer class. Yet, while being part of the problem, we also aspire to be part of the solution. It is not a question of suddenly giving up all consumer goods. Rather it is a matter of looking carefully at how we spend our money, and searching for happiness through our quality of life, rather than the quantity of our possessions. It means reusing goods, recycling materials, reducing waste, and repairing broken possessions rather than throwing them away and replacing them. It means consumers challenging producers to produce more sustainably. And it means putting the needs of the poor before the greeds of the comfortable. This issue of **Tunza** gives some clues on how this new sustainable consumer revolution can begin.

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We want to hear from you - your views, your news and your ideas. E-mail us at tunza@ourplanet.com.



photo: © Tate, London 2004

The Stack

Tony Cragg
artist

'If you live on the land, you know an awful amount about the fabric and the texture of living on the land... Just because we live in a man produced environment why on earth shouldn't we avail ourselves of that depth of knowledge? That fine focus on the microcosm that the things in materials are? I find that part of the richness of living...'

SEEING THE WOOD FOR THE TREES

It's not every day that professional foresters, large retailers and timber companies sit down with indigenous forest dwellers, environmentalists and human rights activists to discuss the fate of forests and timber.

But in 1993 in Toronto, Canada, that is exactly what happened. All present stood to gain. Sustainable forest management is in everyone's interest, because well-managed forests provide livelihoods and resources far into the future.

Instead of depending on cut-and-run, short-term operations, businesses can produce, manufacture and sell products on a sustainable and long-term basis. Local peoples can retain traditional lifestyles of living off the land; workers are well treated; and environmentalists rejoice that forests are given a chance.

Setting standards

The Forest Stewardship Council (FSC) – an internationally recognized body that sets standards for sustainable forestry – grew out of that meeting. FSC authorizes timber labelling from forests managed according to criteria encompassing human, environmental and economic needs. FSC's standards are not just concerned with the felling and replanting of trees; they extend to ensuring that labourers are treated with dignity and that foresters and timber companies can make profits at the same time as preserving natural resources. Sort of making sure that no one cuts off the bough they are sitting on!



FSC's check-and-tree logo only goes on goods that meet strict requirements at every step of production.

Customers can trace the origins of all its certified products from forest floor to shop shelf.

Global force

With partners from the IKEA furniture chain – now a company larger even than Microsoft – to the World Bank, FSC has grown from a tiny organization into a global force.

Major stores worldwide now stock more than 20,000 FSC-certified products from building timber to pencils, tables, doors, other furniture and even lavatory paper.

Dr Chris Elliott of WWF, the conservation organization, who

chaired that first meeting in Canada in 1993 explains: 'At that time there were no certified forests. Ten years on, nearly 50 million hectares – an area larger than Spain – in 62 countries are certified by independent bodies accredited by the FSC.'

Widespread results

The results are seen all over the world. While Amazonian youth craft hand-made instruments from FSC-certified wood, American students manage university arboretums according to FSC guidelines. South African plantations have adopted FSC models of social and ecological management, and Spanish towns are installing certified benches in public parks.

photo: Christian Stanel/UNEP/Topham

BAMBOO – NOT JUST FOR PANDAS

Across Africa, Asia and Latin America, bamboo - technically a woody grass - is a valued source of food and construction materials. In China, it's known as 'the friend of the people', in Viet Nam, as 'brother'.

Bamboo shoots, low in calories and rich in fibre, are great to eat either raw or cooked. Bamboo branches are made into paper and furniture. Nearly three-quarters of the people of Bangladesh live in houses made from it. Skyscrapers in Tokyo and Hong Kong are built and repaired using bamboo scaffolding. And,



photo: Tino Tran/www.bearsuitworld.com/vietnam

in Java, Indonesia, musicians fashion percussion, wind and stringed instruments out of it.

Bamboo is prized not just for its strength but for its rapid regeneration: while it takes 60 years to replace an 18-metre tree after it is cut down, a bamboo

of the same size grows back in only 59 days. Branches can be removed ready to use without slowing this growth. It is no surprise that bamboo is becoming popular around the world as a natural alternative to wood and other expensive, or rapidly depleting, materials.

TUNZA answers YOUR QUESTIONS

Q: I believe in reducing my personal consumption of valuable resources, but I don't see how I can make much of a difference by myself. What is the point, if most people carry on as normal?

CÉCILE BORDIER, FRANCE

A: You have already taken the first step – being aware of the need to reduce your consumption. The next step is to use this awareness in your daily life. If you follow it through with action then people will see the difference you are making in your community, and by setting such an example, you will inspire those around you to change.

Q: What are governments doing now to address the problem of resource inequality? Does the United Nations have a programme in place to help coordinate their efforts?

JEN SCHOFIELD, UK

A: Resource inequality is linked to access to food, water and clean air. Unfortunately, half the world lacks access to such basic necessities. To address this the United Nations, in partnership with other organizations, is mobilizing a global campaign to fight and reduce the level of poverty, improve lives, ensure sustainable development and create a better world by the year 2015.

SUSTAINABLE CONSUMPTION

Q: Even if I turn off lights and taps when I'm not using them, how does that help someone living half a world away? How can the energy being saved benefit them? ORSZI IHÁSZ, HUNGARY

A: It may sound rather presumptuous to assume that the action of one person can affect the state of the global environment. But the action you take at home will have an impact in your immediate environment. If enough of us do our part, even in small ways, we can have a significant effect. The message is simple: 'Think global, act local!'

Q: There are so many environmental groups out there, advocating so many different issues, that it can be very confusing knowing where to start! Which of the problems currently facing our planet should be our top priority?

JINDRICH VODICKA, CZECH REPUBLIC

A: The problems affecting our planet are not tied to one single issue or priority – many interconnected factors contribute to the deterioration of our environment. So it is good to have different organizations with diverse approaches working on environmental issues. In terms of priorities, the first thing to do is look around you and identify for yourself the environmental issue that is affecting your own community the most. Then get involved and do what you can to address it in a way that is relevant to local needs.

Q: Surely people in developing countries need to consume more? What have you got to say to them?

PIERRE JEANMOUGIN, FRANCE

A: If we are to solve the inequalities in the world, increasing overall consumption is not the solution. It is more to do with the fair and appropriate use of available resources to meet basic needs and improve the quality of life. Increased consumption does not necessarily lead to greater happiness or health. For example, more cars on the roads will cause more air pollution, noise and accidents – and make us less fit. What is important is to be aware of what to consume and how.

Q: What can I do in my daily life to help conserve resources? How can I get my family and friends involved as well?

NISRINE KADERBHAY, INDIA

A: We all have to make lifestyle choices and changes. We need to look for changes we can make to reduce the use of resources and look after the environment. Many people say today's youth are the leaders of tomorrow, but today also belongs to you. You don't have to wait to care for the earth. If you show a sense of good leadership and stewardship in caring for the environment, then your family and friends will follow you.



Do you have questions on environment and development issues that you would like the experts at UNEP to answer?

Please send them to cpinfo@unep.org, and we will try to answer them in future issues.

Only one planet

**'Save for a rainy day'
goes the old adage.
Yet humanity has done
the opposite, spending
the world's natural
capital faster than it
can replenish itself. We
are digging ourselves
deeper and deeper into
ecological debt.**

Fish and forestry stocks are not infinite. Neither are fossil fuels, arable land or freshwater sources. Of the world's major fishing grounds, 47 per cent are fully fished, 15 per cent are overexploited and 10 per cent are already depleted. Each year, the earth loses fertile land roughly the size of Ireland - eroded through overuse and deforestation. The crisis is rapidly increasing. World population is projected to reach 9 billion by 2050, and the demands

of the affluent minority are growing: the richest 1 per cent of the world's population already consumes as many resources as the poorest 44 per cent.

Treading lightly on the earth has never been more critical. Using the ecological footprint, a modern environmental indicator, we can calculate our natural resource consumption and compare it against the earth's ability to renew itself.

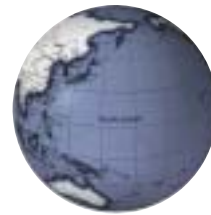
The sum of our individual footprints determines our global ecological footprint, or humankind's total consumption and waste discharge. The latest reports suggest that we are consuming 20 per cent more resources than our planet can provide. At this rate, we will deplete existing stores long before the earth can replace them - and we may run out completely in the next 50 years.

Some see scientific advances in energy and agriculture as the answer. The Green Revolution, which began in Mexico in 1944, dramatically increased crop yields and helped global grain production per hectare to double between 1950 and 1990.

But it often made poverty (and thus hunger) worse, benefiting rich farmers most and driving poorer ones off the land - while the heavy use of fertilizers and pesticides caused environmental damage. But other innovations can really help like those, for example, that exploit renewable energy sources, increase the efficiency with which we use energy and water, and conserve the soil.

There is a dilemma. The poor must move out of poverty. But if all the world's people lived as the richest do today, driving cars, flying frequently and living in air-conditioned homes, we would need the equivalent of 5.1 planets to support ourselves. The only answer is to live sustainably, avoiding waste, and using resources more efficiently - living within the capacity of our one planet. Many studies suggest that people in developed countries, and the middle classes in developing ones, could reduce resource use tenfold without sacrificing living standards, making room for everyone to live decently.

You can measure your own ecological footprint by taking a quiz at www.earthday.net/footprint/index.asp, and comparing it against national and global averages. There are many simple steps that everyone can take to help reverse current trends and return to 'One Planet Living'.



Shrink your shoe size!

Our ecological footprints are made up of the many decisions everyone makes each day about what and how to consume. One Planet Living doesn't mean giving up everything we enjoy - it simply involves treating the earth as though we intended to stay.

As individuals, we can:

- walk, cycle or take public transport whenever possible
- take a reusable cloth bag or basket when shopping
- eat fresh, locally produced foods
- take holidays closer to home to minimize plane travel
- turn off lights in empty rooms, turn down the thermostat and save energy.

To involve our communities, we can:

- talk to family and friends about sustainable living
- encourage local businesses to consider their effects on the environment
- ask our teachers to incorporate the footprint into the school curriculum
- register to vote and support eco-friendly policies and candidates.

Xplore, Xcite, Xtend

Half the earth's people are under 20 years old. Our voice matters - and now we have a new forum to make it heard.

UNEP and UNESCO have set up the youthXchange (YXC) project - www.youthxchange.net - to enable us to get involved and contribute to the global drive for sustainability, towards a world with 'some, for all, forever'.

The project connects young people with the social and environmental issues that touch daily life. From food to fashion, health to hobbies, YXC provides facts, figures and ideas to move towards more sustainable living.

Want to be in the know? Check out the interactive atlas for what's going on and where. Like to shop? Visit the Sustainable Department Store to make informed decisions when you buy. Interested in spreading the word to your friends? Try the trainer's room for the tools you'll want.

YXC isn't a step-by-step guide on how to live; it's a resource jam packed with the information needed to make smart and

sane choices. The printed guide, website and live chat forums can help us look beyond our own backyards and discover what's happening in the world.

Adults and governments are starting to recognize what we knew all along: we're part of the solution, not a problem. Many of us can't wait to share our ideas and participate in the dialogues and debates, since we are to inherit this earth and care deeply about what is happening to it. And we've got the time, talents and enthusiasm to make a difference.

Young people are poised to make or break history. The opportunity to bring real change is at our fingertips. Let's use the resources available and take the planet by storm. Together, we can Xplore, Xcite, Xtend and Xercise choice - raising the bar for our peers and the generations ahead.



Xpanding

We in West Asia are trying to help young people become more aware of the need for sustainable consumption and empower them to act as responsible citizens and consumers.

We held an Environmental Global Youth Gathering in Dubai in 2004, which recognized the need to create youth awareness about sustainable lifestyles in the region, as its economy is consumer-oriented and largely based around tourism. We are working through the UNEP/UNESCO youthXchange project, which is beginning to be introduced in West Asia through the Emirates Diving Association, with financial help from the Government of Dubai - Dubai

Immigration. The Emirates Diving Association will address dissemination of the project in the region - for example through translation, cultural adaptation and networking, seminars and training organizations - in close cooperation with UNEP.

Five thousand surveys have already been conducted in universities and schools around Jordan and we are anxiously awaiting the results. We hope that this will provide us with a snapshot of young people's consumer and environmental awareness, of their concern for the environment, of their thoughts about sustainable consumption and of whether they feel empowered and able to make a difference.

Lara El Saad, Tunza Youth Advisor, West Asia



photo: Sara Lee Luther/UNEP/Topham

Just asking...

In 2001, UNEP and UNESCO scoured college campuses, shopping malls, markets and cinemas around the world in search of young people willing to have a chat.


They wanted to understand what makes young consumers tick - to discover what runs through their minds as they make hundreds of lifestyle decisions, both big and small, each day. So they asked 10,000 youth in 24 countries around the world: 'Is the future yours?'


Conversations focused on sustainable living and its connections to other aspects of development. What do you think about the economy, the environment and respect for human and labour rights? Do you consider these issues when you shop? Do you think you as an individual can make a difference?

Some 75 per cent of those surveyed identified reducing environmental pollution, improving human health and increasing respect for human rights as the biggest global challenges ahead. Nearly half agreed that ordinary people could and should do something to help.

On the whole, the young people interviewed felt they had real power to change the world - that the future was indeed theirs to shape for the better.

It's our party!

 Many songs encourage us to attend parties: few mention the clean-up afterwards.

Most of us would rather not think about the overflowing bins that usually follow good times. 

But students at the Autonomous University of Barcelona have tackled the problem of trash after the bash.

Partygoers arriving at the university's annual celebration are offered colourful, plastic cups for 1 euro (just over a dollar). They can choose to take these 'party mugs' home to reuse at future events, or return them at the end of the night and get their money back.

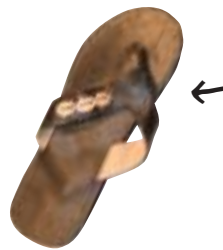
As a result, waste has dropped by 0.3 kg per person - that's 3 square metres of compacted plastic for the entire gathering.

Whatever your party style, there are plenty of ideas for making it green. For more ideas see the youthXchange website.



Re-tread!

In the famous 'Street of the Tyre-recyclers' in Marrakech, Morocco, shoppers can find creative solutions of all kinds - from shoes to flower pots, storage chests and even picture frames - to the problem of rubber waste. Skilled craftsmen often adapt the tyre treads to simulate beautiful Islamic decorations.



Beautiful sandals from Korogocho, Kenya are making wearers across the world feel good from sole to soul. Crafted from recycled tyre treads and leather, they're both eco-friendly and trendy - and all profits return to the local community to benefit the people there.

photo: Ecosandals

Writers everywhere can scribble sustainably in these stylish notebooks from Canada. Each book sports a durable cover made from tyre rubber and contains only recycled paper.



photo: Impression

Check out the facts

UNEP's new **Resource Kit on Sustainable Consumption and Production** is a set of 12 fact sheets covering advertising, eco-design, energy, food, housing, leisure, lifestyles, mobility, new information and communications technologies, textiles, tourism and water. Each one analyses the environmental impacts of related activities and features examples of good practices around the world. And each has tips to help you put sound environmental principles into practice.

Take a look at <http://www.uneptie.org/pc/pc/library.htm>

Home Planet

Housing sprang from the earth. Wherever our ancestors went, from the tropics to the tundra they threw up shelters, using whatever natural materials they could find to hand, from stones to trees, and almost everything in between.

As agriculture developed, and humanity became more settled, permanent towns and villages emerged, again using local materials. These settlements often showed a sophisticated sensitivity to the local environment, whether the longhouses of forest peoples in Indonesia or the Native American villages of the southwestern United States, planned with great care to make the best use of sun and shade.

But as prosperity increased, homes, towns and cities took an ever greater toll on the planet, with ecological footprints stretching well beyond their immediate surroundings. Cities suck in resources from around the world and



push out pollution that affects whole regions – even the globe itself. Heating homes and other buildings is a major cause of global warming.

Meanwhile 928 million people worldwide live in unsanitary, insecure – and growing – slums: and numbers are expected to reach 2 billion by 2030. So in both industrialized and developing countries building sustainable housing for the world’s 6 billion people has never been more critical.

Slum dwellers usually cannot afford even the cheapest conventionally built housing, but have shown themselves adept at building their own homes,

improving them and turning their shacks into solid structures when given a chance. Site-and-services schemes can help greatly: city planners lay roads and concrete floors and – most importantly – provide clean water and sanitation drainage, allowing people to custom-build their homes on top. Such dwellings make relatively little demand on the planet’s life-support systems.

If anything, the challenge of providing sustainable housing in industrialized countries, and in the wealthier areas of developing ones, is even greater. But pioneering work is being done across the globe. Here are a few examples.



The Z House, Brazil

On the outskirts of Rio de Janeiro, architect Joao Bird has designed the first prefabricated house built entirely from Amazonian hardwood certified by the Forest Stewardship Council as having come from sustainably managed forests. The Z House has many green features, from energy-saving appliances to its tiling, roofing and fencing. Even the charcoal for barbecues comes from a certified supplier.

photo: WWF-Brazil

Dedetepe Farm, Turkey

High in the Kaz Mountains, the residents of Dedetepe Farm strive for peace through meditation and ‘minimum waste through minimum consumption’. After work (the farm produces 650 kilos of organic olives and olive oil each year), they cook over open fires and at night they sleep in tents. No chemicals are used, and all electricity comes from solar panels and a small wind generator.

photo: Dedetepe Farm



Black House, UK

At architect Meredith Bowles' award-winning Black House highly insulated walls, strategically oriented windows and a pump heating system make it both cost-effective and energy efficient. The Royal Institute of British Architects called it 'an exemplar... of how to design a low-cost, generous accommodation, low-energy dwelling, where every square quarter metre of floor space justifies its cost.'

photo: Meredith Bowles

The House with an Umbrella, Czech Republic

This family house, built in 2003 by SEA Architects, combines traditional materials with new creative solutions based on modern technologies. Adobe masonry is covered by straw sheathing and the roof is sheltered by a waterproof cover. Traditional materials like adobe (air dried mud) are locally available, renewable and easy to recycle.

photo: Ester Havlová



Co-housing, Canada

Started by the Danes in the 1980s, co-housing consists of small private residences, usually for some 15-35 households, clustered around a 'common house' with shared amenities including children's play areas, lounges, office space and guest rooms. It emphasizes efficient use of land, organic gardening, controlled waste and water management and energy-saving measures.

photo: www.cohousing.ca/robertscreek



Mata de Sesimbra, Portugal

By 2014, 30,000 vacationers will be able to visit Mata de Sesimbra, the world's first integrated sustainable building, tourism, nature conservation and reforestation programme. Carried out jointly by WWF, BioRegional and Portuguese developer Pelicano, it will span 5,300 hectares of land, 4,800 of them devoted to natural reserves and forest and wetlands restoration. It aims to provide high standard, low impact One Planet Living – 100 per cent renewable energy, locally sourced cuisine, cultural celebrations and even a golf course fed by treated waste water.

photo: Mauri Rautkari/WWF-Canon

CDs PC? OK! Good things come in small packages, as

the saying goes. Just one millimetre thick, each modern CD can store over 6,600 average length novels - which would take up about 100 metres of bookshelves!

But where do CDs come from? And where do they go after we're finished with them?

Many everyday products (from cars to books, refrigerators to hamburger packaging) can be tracked

Buy the way

Cars

(per 1,000 people)

Lebanon	732
New Zealand	578
Brunei	576
Iceland	561
Italy	542

Somalia	0.1
Armenia	0.3
Bangladesh	0.5
Myanmar	0.6
Tanzania	0.8

Colour TVs

(per 100 households)	
Belgium	99.6
USA	99.5
Ireland	99.3
Saudi Arabia	99.1
Canada	98.7

CD players

(per 100 households)	
Denmark	89.3
Netherlands	89.0
Norway	88.2
New Zealand	86.4
Germany	85.4

Computers

(per 100 people)	
Switzerland	70.9
USA	65.9
Singapore	62.2
Sweden	62.1
Luxembourg	59.4

Mobile phones

(per 100 people)	
Luxembourg	106.1
Israel	95.5
Italy	93.9
Iceland	90.6
Sweden	88.9

Sources: youthXchange; BBC; USDA; www.endhunger.org

And beyond Just as CDs replaced vinyl records, they are themselves gradually being replaced by MP3 players, which read digital audio files from built-in hard drives. These can store thousands of songs - perhaps an entire music collection - and allow users to constantly change their playlists by simply deleting old songs and downloading new ones.



Afterlife Millions of CDs become obsolete every year. About 545 tonnes of them are thrown out annually in the United States. They usually end up in landfills and incinerators because they are not biodegradable.

But there are many other uses for unwanted CDs. Many people sell them to stores, trade them with friends or donate them to charity shops, libraries and community organizations. Others creatively transform discarded discs into drink coasters, disco balls and wind chimes.

What we do

More than half of Greek 15-year-olds communicate electronically every day.

More than half of Israeli 15-year-olds drink soft drinks every day.

Nearly half of Ukrainian 15-year-olds watch 4+ hours of TV every day.



Another life

Your old CD could also become part of a car, a coat-hanger, a street light or even another CD! One American company, GreenDisk, sells office supplies made from recycled CDs and cases, urging customers to 'save your CDs, save your money, save your planet'.



Useful life

Consumers take their new CDs home or to work, and pop them into CD players and computer drives. Some (like music and software programmes) contain only the manufacturers' original information. Others come blank - either limited to just one recording or, better, rewritable up to 1,000 times over.

from start to finish through 'life-cycle analysis'. This helps manufacturers improve the materials and processes they use to make goods more environmentally friendly, and lets consumers see where they fit into the picture.

Compact discs originated in the United States, where music lover and scientist James T. Russell invented the first in his home in 1965.

Tired of the wear and tear on his vinyl phonograph records, he devised his system to read massive amounts of information without the use of moving parts.



Materials Most materials for CDs originate as raw materials, which are processed. Polycarbonate plastics for the discs and lacquer for finishing are both made from petroleum products. Aluminium for the coating comes from bauxite ore extracted from the earth's crust through smelting (a highly energy-intensive procedure).



Manufacturing

Machines mould and stamp tiny indentations containing digital information into the plastic, then coat it with reflective aluminium so that CD players can read the embedded data.

After receiving a protective layer of lacquer, discs are labelled and screen-printed with chemical dyes or water- or soy-based inks.



Packaging

Discs are placed into decorative plastic cases (sometimes made from recycled materials - including old CDs) and shrink-wrapped in polyvinyl chloride (PVC).

Meanwhile the Japanese corporation Sanyo recently began manufacturing the world's first biodegradable CDs with plastics derived from corn. Each 'MildDisc' requires 85 kernels (one ear of corn will yield 10 discs) and breaks down into water and carbon dioxide after 50-100 years, making the expression 'disposable pop music' a reality.

Distribution

Trucks, planes and trains carry boxes of the finished CDs to warehouses and shops around the world.



What we waste

UK: \$571 million worth of food ends up in landfills or incinerators each year (not to mention the additional \$71 million in disposal costs).

Republic of Korea: More than \$6 billion worth of food is wasted (more than the total amount of food available in the Democratic People's Republic of Korea).

USA: One quarter of all food produced domestically spoils, is tossed out or is left on the plate (43.5 billion kilos wasted each year - 1,381 kilos per second).

Recycling

Recycling rates in selected OECD countries

Paper and cardboard

Australia	47%
France	50%
Germany	70%
Italy	37%
Japan	59%
Portugal	46%
Spain	48%
Sweden	63%
Switzerland	63%
UK	41%
USA	42%

Aluminium cans

Australia	63%
France	30%
Germany	78%
Italy	50%
Japan	83%
Portugal	27%
Spain	25%
Sweden	86%
Switzerland	91%
UK	42%
USA	53%

Glass packaging

Australia	40%
France	55%
Germany	83%
Italy	40%
Japan	78%
Portugal	40%
Spain	31%
Sweden	86%
Switzerland	91%
UK	30%
USA	23%

Total municipal waste

(kg per capita, per year)	
Australia	690
France	530
Germany	590
Italy	510
Japan	410
Portugal	440
Spain	650
Sweden	470
Switzerland	660
UK	580
USA	730

Sources: OECD; Pocket World in Figures, 2005 Edition, London: Profile Books Ltd, 2004

Products as good for the Planet as they are for your Soul

Wildlife Works is putting the power of the global consumer to work for conservation programmes around the world. It's called *Consumer Powered Conservation*, and it's working!

UNEP selected Wildlife Works to be its official merchandise partner because of its activities to protect wilderness while creating sustainable development for communities in Africa. Together, Wildlife Works and UNEP are proud to bring you examples of world-class products that we hope will provide inspiration and show that the environment can be protected without sacrificing beauty or quality. Better yet, all of the products just happen to be made from materials that represent the best in sustainability - and they are all made in fairtrade conditions.

In Kenya, Wildlife Works' **Rukinga Wildlife Sanctuary** has opened a key migration corridor for endangered elephants, cheetahs, wild dogs, zebras and 43 other large mammal species. At the same time, by creating jobs and



photo: Bert Weisbart/UNEP/Topham

building schools, Wildlife Works helped the people living near Rukinga to see wildlife in a new light. Today, these precious animals represent an economic asset to the local community.

Building on this success, Wildlife Works has set its sights on new conservation projects in other parts of the world.

In **British Columbia**, it is actively pursuing a plan to support the Great Bear Rainforest Agreement initiative, which aims to create alternatives to the intensive logging of this ancient Canadian rainforest.

Wildlife Works is also exploring ways to bring *Consumer Powered Conservation* to the **Nepal border region within India**, where the red panda is critically endangered, and to **Uganda**, where mountain gorillas are under threat of extinction.

And it won't stop there. Wherever wildlife is endangered by hunting, loss of habitat or other threats, Wildlife Works believes there's an opportunity for change - an opportunity to help create an enduring economic basis for wildlife survival.

Examples of Wildlife Works official UNEP merchandise



Ten per cent of every purchase goes to UNEP to help it fund programmes around the world that promote sustainable development.

So wear your UNEP merchandise with pride knowing that you helped promote the goals of the United Nations Environment Programme!

UNEP Official Merchandise Store by Wildlife Works

www.wildlife-works.com

Pulling together

Last summer **Matthew Pinsent** powered his way to a hair's-breadth victory in the Olympic final of the coxless rowing pairs, providing one of the summer's most exciting sporting moments. It gave him his fourth rowing gold medal in four consecutive Olympic Games – to go alongside his ten World Championship golds.

The victory was especially sweet as it followed a troubled run-up to the Games: victories were hard to find, the crew changed, and then – just seven weeks before the Games – Alan Partridge, a key crew member and friend, had to withdraw after puncturing his lung. On the winners' rostrum in Athens, Pinsent was clearly overcome with joy, relief and not a little exhaustion.

He has another less well-known passion – recycling. 'I've always been a big believer in recycling and it's something that I do all the time without really thinking about it', he says. 'I use the local collection services when I'm at home in Henley, UK, which makes it really easy to recycle all my empty glass bottles and cans every week.' And he even recycles his worn-out rowing gear.

Now Pinsent is backing RecycleNow, a campaign run by the Waste Resources Action Programme, a not-for-profit organization supported by the UK Government. He says, 'We're encouraging more people to recycle more things more regularly.'

'It's a real winner, reminding us how easy it is to recycle and showing what amazing things recycled rubbish is being made into. It really grabs my imagination and inspires me to do more.'

He adds: 'Through the campaign, I am determined to give everyone the

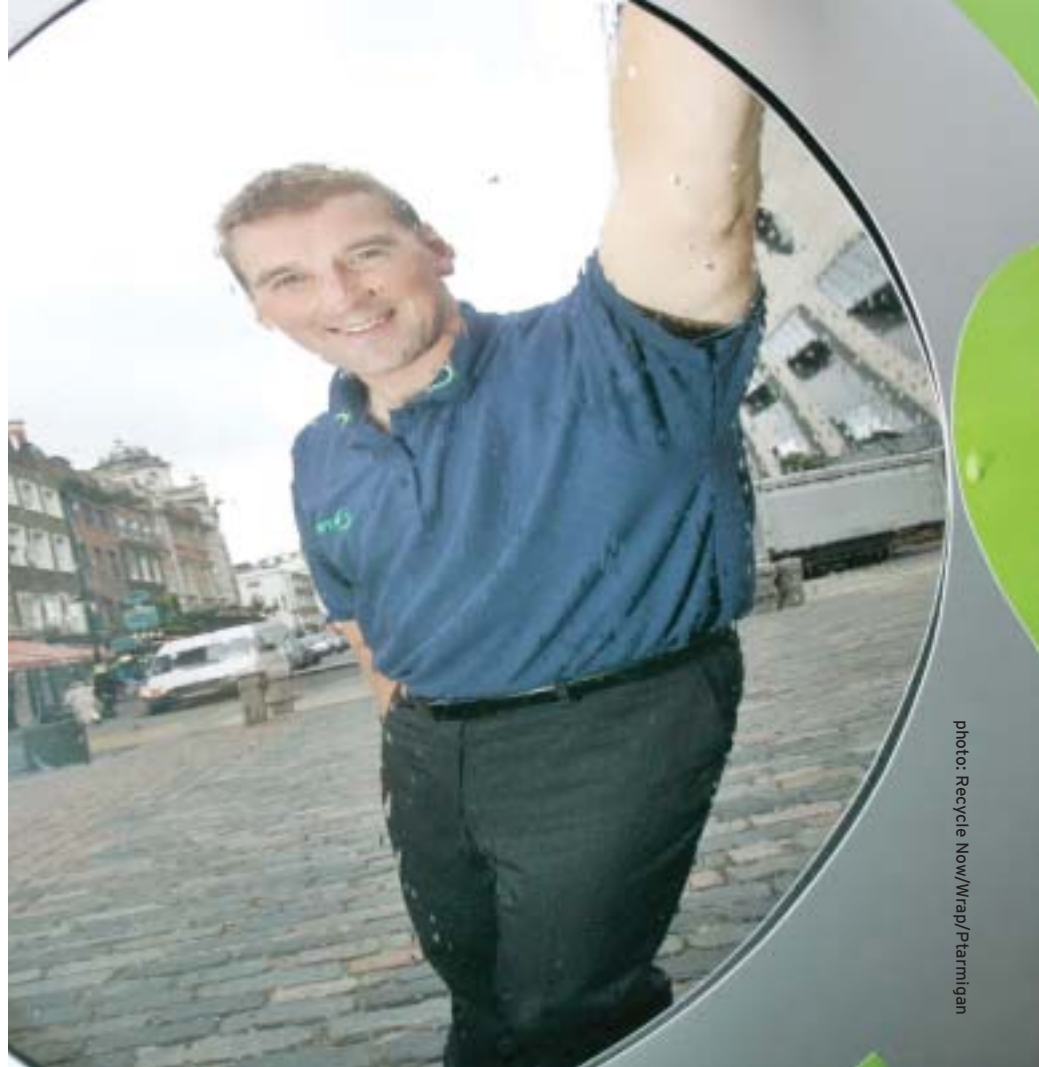


photo: Recycle Now/Wrap/Parmigan

rational and emotional reasons to recycle more things and get them to change their behaviour in favour of the environment.' Without it, the UK, like many other countries, is just going to run out of space to dispose of its rubbish, ending up a gigantic garbage mountain.

Pinsent has just ended speculation as to whether he

would go on to another Olympic challenge, and try to equal Steve Redgrave's phenomenal record of five golds in five Olympics. 'I'd like to have some involvement with the Olympics, but the chances are that it will be as an administrator rather than a coach, and not as a competitor.' But he will certainly go on saving resources though recycling.

Matthew Pinsent's **RECYCLING TIPS**

- Make recycling part of your family's weekly shopping trip.
- Take your recyclable items to the recycling banks or to the local household waste recycling centre.
- Remember to recycle your glass jars as well as bottles.
- If you've got a garden, why not set up a home compost bin for your kitchen and garden waste such as fruit and vegetable peelings and garden clippings. It cuts down on what needs disposing of and helps the garden too.
- Try to buy fruit and vegetables loose, not pre-packed, to save putting more stuff in your bin.



A green answer

At 15, I decided I wanted to get involved in an environmental organization that was acting directly to prevent environmental destruction. I found it in 'Green Action' – the name says it all. I'm currently on the Board and Coordinator for International Cooperation for Green Action/Friends of the Earth Croatia.

Having worked on local and national projects for three years, in 2001 I travelled to Borgholm in Sweden to attend the World Youth Conference on Environment and Development. Soon I found myself reading the final draft Declaration in front of the 280 delegates from 110 countries who adopted it. I then decided two things: to focus on sustainable development and to work more at a global level.

I started a huge regional campaign in southeastern Europe to raise youth awareness about sustainable development and the importance of the upcoming World Summit on Sustainable Development in Johannesburg. As a result, the Croatian Government included me in its official delegation for the Johannesburg Summit as a representative of civil society. In South Africa I chaired the International Youth Summit held prior to the main Summit, while at the Summit itself I was one of the coordinators of the Youth Caucus (an informal coalition of youth leaders advocating for sustainable development at international conferences).

I have chosen to work with capacity building – training youth leaders in high-level international processes related to the environment. By doing this I am helping these young people to express their environmental concerns, to make a difference and to influence decision makers.

When I was elected as a Tunza Youth Advisor in 2003, as a link between youth

and UNEP, my mission to advocate for youth became even stronger. By June 2004 I was leading the Tunza Youth European Network and a lobbying team of around 30 youth delegates at the European Conference on Health and Environment in Budapest, Hungary. This was the first time young people had been involved in this process but at the end of the conference European ministers decided to create a youth seat on the permanent committee.

I'm currently focusing my energy on climate change and environmental education: climate change because I find it the biggest environmental challenge and environmental education because I see here the greatest added value of youth organizations – using the peer education concept.

As we enter the UN Decade of Education on Sustainable Development it will really make a difference if young people are educated on sustainable development issues – and empowered to act. Young people up to 25 make up almost half of

'Young people could give a much needed boost to sustainable development by changing their consumption habits'

the world population so they can have great influence, not just on political leaders as citizens, but also on companies as consumers. If unsustainable consumption patterns continue young people will pose a big threat to sustainable development while, on the other hand, young people themselves could give a much needed boost to sustainable development by changing their consumption habits.

My message to the readers of this magazine is a favourite quote from Leo Buscaglia: 'Don't spend your precious time asking "Why isn't the world a better place?" It will only be time wasted. The question to ask is "How can I make it better?" To that there is an answer.'

Tomislav Tomasevic is a Tunza Youth Advisor for Europe.

fashio

Models sashayed down runways at the Ethical Fashion Show in Paris in late November 2004, showcasing collections from 20 designers around the world.

Meanwhile, in a Rio de Janeiro shanty town, the 150 craftswomen of the Coopa-Roca initiative create unique fashion and home products using traditional Brazilian forms of crochet, knotting and patchwork.



ning fashion



And in Ventura, California, an outdoor clothing company called Patagonia sells warm, colourful fleece vests, jackets (like the one on the right) and trousers all made from recycled plastic soda bottles and hemp.



Sustainable style is catching on – from catwalks to sidewalks across the globe, people are turning to fashion that respects the social and natural environment that it comes from.

People who love haute couture, grunge or outerwear can all now dress to be both cutting edge and ethically conscious. Some purchase vintage outfits from second-hand shops, while others order clothes made from recycled materials over the Internet. Some may select the latest trends from upscale boutiques; many more sew original creations by hand.

Increasingly people are starting to consider the life behind the product as well as appearance, quality and price in their quest for personal style. They learn who made the item, and out of what materials. In response, a growing number of people in the fashion

industry are working to produce clothes and accessories that are simultaneously beautiful, socially responsible and environmentally friendly.

Organically grown cotton, linen and other fibres are now available: choosing natural fabrics means they will biodegrade at the end of their useful lives.

Sustainable living need not be bland. With creativity and craftsmanship, individual tastes can thrive. The Seattle-based Sustainable Style Foundation (SSF) encourages people from all walks of life to 'look fabulous, live well and do good'. It says that true style is an expression of imagination and individuality, rather than a cycle of conformity and consumerism.

More and more people see clothes as a way of letting those around them know who they are and what they stand for. They don't need to choose T-shirts with bold slogans across the chest. From feathered fedoras to wool beanies, top hats to baseball caps, sustainability wears many hats. So let sustainable – and individual – style shine through.



Gary Ang, 19, United States

'With a good eye and a good thrift store, \$20 can go a long, long way! It's not like any other store-buying experience - you have to be willing to hunt around for the right sizes and styles. But I'm happy with my purchases and before long I'm sure I'll be back for more!'

Erzsebet Szilagyi, 18, Hungary

'Second-hand shops are wonderful because you can buy unique, fashionable clothing, like this shirt - that you might not be able to find in regular stores - at affordable prices. All you have to do is use your imagination and lots of creativity to create your own style!'

Think globally, eat locally



There are 25 million milk-producing animals in Mongolia, but the shops used by wealthier people there mainly sell German butter. Britain imports 430,000 tonnes of butter from its neighbours in the European Union (EU) – while exporting roughly 470,000 tonnes to those same countries.

The EU imports 72 per cent of all apples on the world market, and its supermarkets generally stock just four or five types of them. Yet more than 2,300 regional varieties of apple grow there.



One study, looking at a typical Sunday lunch near Leicester, England, found that the beef had travelled 21,462 km from Australia, the potatoes 2,447 km from Italy, the carrots 9,620 km from South Africa, the beans 9,532 km from Thailand and so on, through the courses, for a total of 73,448 km. Every continent contributed to the lunch table, but all the food could have been produced and bought locally.

Every morning, cargo planes filled with carnations and roses depart from Nairobi and land in Amsterdam to be sold at the world's largest flower market. The 21 million flowers then journey on to destinations as scattered as London, Moscow, Beijing and San Francisco.

Flowers, food and drink – meats, fruits, vegetables and even wines – now criss-cross the globe to an extent unimaginable just 50 years ago. Billions of poor people can only eat whatever is grown locally, but the relatively affluent enjoy seasonal produce like strawberries, tomatoes and peas all year round. South African grapes, Australian lamb, Guatemalan bananas and Argentine beef regularly end up on supermarket shelves and dinner tables, alongside Chilean apples and Moroccan beans.

Transport is faster and more reliable nowadays. But it is also subsidized by a lack of taxes on airline and shipping fuels. The environmental costs of pollution – including greenhouse gases that cause global warming – are not included in the prices paid for much of the food in the shops.



'A just cup'



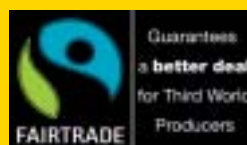
Santiago Riviera is a Nicaraguan coffee grower. After he and his family plant and harvest the beans, they are sold and shipped to processing plants around the world.

From the bush to our mugs, coffee beans can change hands as many as 150 times. Each person involved contributes labour and adds a few cents to the final cost. Of the \$3.50 charged by a café for a cappuccino, the grower rarely receives more than 10 cents.

But are all the steps really necessary? Those who support Fair Trade don't think so.

The Fair Trade movement aims to simplify the supply chain and provide small farmers with stable incomes. While others pay between 55 cents and \$1.76 per kilo, Fair Trade purchasers guarantee growers like Riviera \$2.77. As a result, Riviera can cover his costs, support his family and reinvest in his community.

Many major coffee houses are now selling Fair Trade coffee, as they discover that more and more customers are happy to pay an extra few cents to ensure that people like the Rivieras have enough to eat and can send their children to school. Perhaps it is important that our daily brew is not just a cup of coffee, but 'a just cup'.



All grown up ↑

In the Masai village of Loitokitok in rural Kenya, Parmuya Kampei Kirasi and five of his friends admire the 4.85 hectares of seedlings they have just planted. For the second consecutive year, they have sown row after row of tomato plants and onion bulbs, and now they must wait seven long months to reap the fruits (or vegetables) of their labour.

The six young people formed the Ilmepukoo Farming Youth Group in 2002 to improve the living standards of youth in their village. They are supporting employment and training in modern agricultural methods, with the aim of giving their peers a chance to invest in their collective future.



People are starting to question the logic of all this. We could live just as well and interestingly using more locally produced goods. Drives to buy locally have sprung up - from Governor Arnold Schwarzenegger's urge to 'Be Californian: Buy California Grown' to the 'Proudly South African' campaign and farmers' market movements across Europe and the United States. Favouring local consumption as a way of returning to regional pride and cultural roots, as well as good environmental practice, is growing rapidly.

Buying foods locally can also build community and reawaken understanding of connections between people, land and harvest cycles. Cooking fresh ingredients - as advocated by the Italian-founded Slow Food Movement - encourages 'taste, tradition and the honest pleasures of food'.

There is an old environmental slogan: 'Think globally, act locally'. Maybe it is time to supplement it with a new one: 'Think globally, eat locally'.

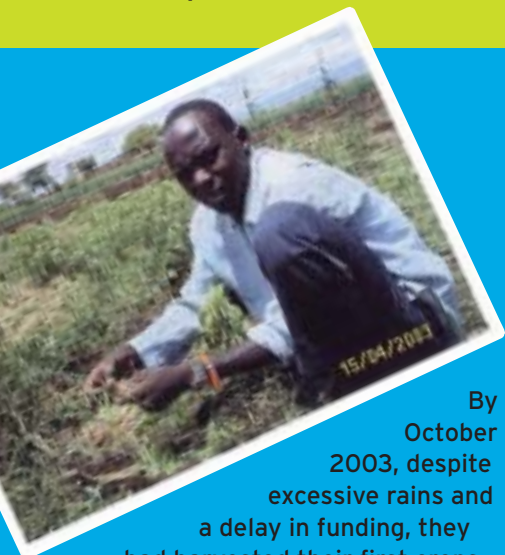


photo: Peacechild International

By October 2003, despite excessive rains and a delay in funding, they had harvested their first crops. They kept some of the produce for their families to eat and sold the rest, raising roughly \$515 to reinvest in seeds and equipment for the next planting season. In this way, the six friends hope to keep their small operation running for years to come, generating extra food and income for their families, and expanding to include more young people from their community.



Where there's wool, there's a way

I was born in Brno, the second biggest city in the Czech Republic, in 1979 - a time when the communist regime allowed no private farming. I have always felt close to all living things, especially livestock. So I was constantly looking for ways of meeting real horses, cows or sheep - even if it wasn't always easy.

No one in my family farmed, so the only solution was to visit our family friends in the countryside where I - a city child - could delve into the mystery of farming. Pitchfork in hand, I devoured information about breeding horses and milking goats. Many people predicted that my enthusiasm would be short lived, and told me I should choose a more refined occupation - but I felt bound to farming by an invisible but intense tie.

I decided to be a farmer. During my studies at school and agricultural college I wove dreams of having my own farmhouse. I met Ludek, a young man who encouraged me in my plans, and we married. He gave me our first sheep as my 19th birthday present. We called it Alberta, and it came for walks

on a lead along the city streets with us.

We were searching for a place in the countryside where we could settle down. Finally we made our home in the tiny village of Pejskov - in an empty former piggery - and we have been restoring it for five years while our small numbers of horses and sheep have slowly grown.

The horses give rides to our guests - who come to enjoy the natural beauty. The sheep produce milk, from which I make a wide variety of organic dairy products, especially cheese. Both the horses and the sheep spend most of the year out at pasture, where they are happiest. Many other domestic animals live on our farm - dogs, pigeons, chickens, parrots, guinea pigs and rabbits - much to the delight of the mainly urban children who come to visit us.

Our farm is self-sufficient and makes enough for our modest subsistence. We are grateful to be creating a life for ourselves that is in harmony with nature - and to be able to share it with others.

Julie Krocova



ENVOYS OF IDEAS

For the seventh year running, professors, posters and pamphlets urged youth around the world to join in the drive towards sustainability with UNEP and its first private sector partner on youth environmental outreaches, the Bayer Group.

Out of hundreds of applicants from Asia, Latin America and Eastern Europe, 44 young people were named Young Environmental Envoys under the UNEP-Bayer partnership for their dedication to promoting sustainable development in their countries.

Envoys flew to Bayer's corporate headquarters in Germany in late November 2004 for a weeklong field trip. Aged 16-25 years, with backgrounds ranging from chemistry to forestry to law, some had never travelled outside their countries before, while others were veterans of international conferences. Yet they had a shared commitment – backed with corresponding eco-projects – to environmental protection in their respective fields.

Future leaders

Mr Dirk Frenzel of Bayer called the youth 'envoys of their countries as well as of ideas' – particularly the idea of sustainable development. He expressed the company's hope that they become future leaders across many sectors, from industry and research to politics, journalism and non-governmental organizations.

During the week, senior corporate and government officials

presented Germany's adoption of ecologically integrated industrial processes, building environmental considerations into production.

Through workshops, seminars and site tours, envoys examined technical and policy-based responses, and discussed how these could be adapted for use in their countries. Many agreed with Anusha Kothandaraman, 20, of India, that environmental protection must be 'simultaneously cost-effective and profit maximizing to be feasible in developing economies'.

They also supported the view of David Orjuela Yepes, 22, of Colombia, that 'in developing countries, people must first care and become conscious of current environmental situations: this is needed to assure solutions for future generations'.

'Push for change'

UNEP Regional Director for Asia and the Pacific Surendra Shrestha encouraged envoys to not wait but to 'push for change'.

Dr Udo Oels – Bayer board member responsible for innovation, technology and the environment – addressed shared responsibilities between businesses, governments



and individuals. He said: 'A concerted international policy, a commitment by industry to more environment-friendly products and processes, and environmentally conscious behaviour by our citizens have to go hand in hand.'

Exchanging thoughts

Envoys mingled between sessions, comparing theses, swapping business cards and sharing project ideas. Yan Xiaowei, 19, of China remarked: 'It's exciting knowing what people with the same dreams are doing in their countries: we can exchange thoughts and come away with two ideas instead of one.'

Bayer's Miho Oka concluded: 'For us, it's very important that envoys return home with knowledge and experience to their own countries and share them with their generation. We hope they become stakeholders in the future: we are expecting much from these young people.'





From Small Beginnings

As a child, girl scouting introduced me to nature, and tree planting marked my introduction to stewardship of this wonderful planet. This led to greater endeavours. From where I live in the Philippines, I was elected as Chair of Save the Mother Earth Movement. At our eco-camps, talks and activities promoted environmentalism among students and encouraged sustainable environmental practices.

At school I investigated using potato starch to produce easily degraded plastics and in 2000 I qualified for the Youth Research Apprenticeship Program, where I opted to work with the Philippines Department of Environment and Natural Resources on toxic metal removal.

'Being an envoy is a commitment to a sustainable future'

Then in 2004 I was chosen as a Bayer Young Environmental Envoy, after a thorough national selection process. This has widened my perspectives and given me a greater role in a global effort to create a better world.

I am now working on a campaign where usable, recyclable solid waste from my university is sent to nearby *barangays* or neighbourhoods to be processed into useful products or composted. The finished products can then be marketed - supporting local livelihoods. It is a simple project, yet it could have a great impact on the environment.

Being an environmental envoy is not just a distinction - it is a commitment to creating a sustainable future. My vision is of a planet where people enjoy their environment and all that it has to offer without destroying it and without compromising the needs of generations to come.

With my small endeavours, and those of all of the young people from different regions sharing the same aim, I am optimistic that this dream is fast on its way to becoming a reality.

Maila Q. Beniera,
Bayer Young
Environmental Envoy,
Philippines



'As youth, we must focus on fresh, creative methods for change.'
Hyung Won Lee, 24,
Republic of Korea



'I came here wanting to be inspired again, because in China there is much necessity for increased activity.'
Dong Xiaotong, 23, China



'Industry and environmental protection must go together, and this means continually developing better methods and new applications to improve the system.'
Débora Maia Periera, 22, Brazil



'I believe that young people should know more about ecological issues, since we're the ones who will work with problems in the future.'
Michal Przybycin, 23, Poland

conference photos: Bayer





1 Want to drive, but worried about air pollution and global warming? The hybrid car is the answer. Running on petrol and electricity it uses half as much fuel as normal cars, and so emits half the harmful gases. Stars like Cameron Diaz and Leonardo di Caprio are enthusiastic owners of the Toyota Prius, one of the first such cars. The Prius is so popular that there is now a six-month waiting list to buy one in the United States. In 2004 it was voted Car of the Year in both Europe and North America. And this is just the beginning. Manufacturers are competing to bring out similar cars and Ford is about to launch a hybrid SUV (sport utility vehicle). Next come 'hyper-cars' that use one third to a fifth less fuel than normal.

photo: Toyota

2 Electric light transforms the lives of the poor, making it possible for families to stay active - and children to study - after night falls. But electricity is scarce in many developing countries; millions of villages are far from the grids, and power is expensive. Now the Light Up the World Foundation has found a way to illuminate whole villages with less electricity than is used by a single 100 watt bulb. Combining simple pedal-powered electric generators with wind turbines and with cutting edge technology from light-emitting diodes it has won a Rolex Award for Enterprise. Already working successfully in Nepalese villages, it is set to spread around the world.

photo: Seth Leon/LUTW

3 More than 2,000 metres up on Mount Snowmass in Colorado, where the temperature can fall to minus 44 degrees centigrade, a banana crop is harvested each year. It is grown in a building at the Rocky Mountain Institute that is 99 per cent heated by the rays of the sun (the rest comes from two wood stoves, lit occasionally mainly because they look good). The self-heating building was achieved by orienting it towards the sun, designing it to catch the rays and insulating it heavily. It is a dramatic example of what can be done using passive solar heating, a technique well understood by some ancient societies, which is now rapidly catching on around the world.

photo: Rocky Mountain Institute



4 More than a billion people around the globe cannot get safe water. But now a simple device is making it possible for poor people to purify their water. When water is placed in the base of the Watercone it is evaporated by the sun and condenses out as pure water on the side of the cone. Taken up by CARE Germany, and already in use in Yemen, it needs no power or complicated maintenance, and will produce a litre of fresh drinking water a day.

photo: www.watercone.com

5 Wind is the cheapest form of renewable energy, but 'windfarms' designed to harness it are accused of ruining the landscape in many countries. But now a firm in Scotland has designed a personal rooftop windmill that will fit on the chimney of a house, and generate much of its electricity. The Windsave will start producing power in winds of just 8 kph, pay for itself in reduced electricity bills in three years, and needs no maintenance for a decade. And each rooftop windmill is calculated to save the emission of nearly a tonne of carbon dioxide, the main cause of global warming, each year.

photo: Windsave



6 Cooking supper, over much of the world, means cutting down a tree. Wood is often the only fuel available to the poor. They spend backbreaking days collecting it. And, when burned, its smoke contains a cocktail of poisonous chemicals that kill over a million small children every year. The Escorts stove, which has just won an Ashden Award for Sustainable Energy, is the latest of a series of improved devices that need much less fuel and so preserve forests and health. Built by trained local women near Lahore, Pakistan, the stoves are spreading rapidly in the area, and have been taken up by 70 per cent of the people in the 56 villages where it has so far been introduced.

photo: Martin Wright

7 Run down your mobile phone battery? Now you can recharge it by hand. You save electricity, and you don't have to be near a power point. Several companies now produce chargers that work by turning a small handle and a Japanese company has just produced one that works when you squeeze it. Inventors are also looking into ones that will charge automatically as you walk along. Apart from their convenience and environmental friendliness for everyone, the hand chargers could be invaluable in developing-country villages where mobile phones are increasingly used for vital communications.

photo: www.porta-charge.co.uk





photo: Scott W. Powell/UNEP/Topham

THERE'S ONLY ONE EARTH