

TUNZA means to
cherish
protect
care for
appreciate
Learn from
embrace
nurture
Love
our planet.



TUNZA

The UNEP Magazine For Youth



Vol 1 No 2

In ACTION

WHAT YOU can do

seeking
solutions
first tunza conference

ecological
footprint

star interview:
Lance Armstrong

seven
green
wonders

use recycled materials -
like tunza!

For young people, by young people, about young people





TUNZA

is available at www.ourplanet.com

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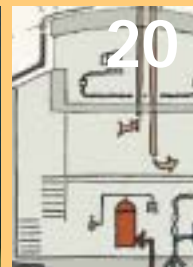
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TUNZA

- 3** Our Generation
- 5** From Small Beginnings;
Around the World
- 6** Dear Tunza . . .
- 7** Ask Tunza!
- 8** Seeking Solutions
- 11** Dubna: The Commitments
- 12** Ecological Footprint – what
it is, what it means
- 14** Star Interview:
Lance Armstrong
- 16** Painting Competition
- 17** For My (Future) Children
- 18** In Action: CLEAN India
- 20** I Live the Future – and it
Works; poster competition
winners
- 22** Seven Green Wonders of
the World



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our generation may well be the last that can save the planet



The age group now in power has not achieved enough. It helped to turn environmentalism and concern for world poverty into a global force. It brought about social, economic and technological revolutions, and fought racism and sexism. But people in the developed world – and the comfortably-off in the developing one – became too set in their ways, too attached to a good life and to their own status, to bring about the switch to sustainable development that the world desperately needs.

We only need to look around. Nearly half the world's people still have to live on less than 2 dollars a day. Over 2 million people die every year because they cannot get clean water. Over a million children under five die from breathing in the smoke from burning wood and dung because their families can't get modern clean forms of energy. Nearly a quarter of the world's farmland has been degraded. Species are being driven to extinction alarmingly fast. And global warming is speeding up, melting glaciers and polar ice shelves, disrupting harvests and threatening catastrophe.

Can we possibly accept a future of increasing world poverty in a disintegrating global environment – and the violence and conflict that are bound to result?

We must act, and act now. We may not be in power, but we are not powerless. Businesses spend billions on advertising to us. Politicians seek our votes. We should think and buy what we need – but only products produced with proper care for the environment. And those who can vote should support people who really work for sustainable development.

As this magazine reports (page 11) young people meeting in Dubna, near Moscow, Russia, have drawn up ten practical commitments which give a guide to action. As other pages in the magazine show, such action can have a dramatic effect. Many other important steps have been taken because people were convinced by their children.

Above all we must not let our youthful radicalism fade into middle-aged complacency. We must tread lightly on our planet – keeping our consumption sustainable – while stamping on practices that endanger it.

editorial

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

THINK BEFORE
YOU THROW
AWAY



ART BY DEIA SCHLOSBERG/PCI

ONLY TWO MANMADE STRUCTURES ON EARTH ARE LARGE ENOUGH TO BE SEEN FROM OUTER SPACE - THE GREAT WALL OF CHINA AND THE FRESH KILLS LANDFILL IN NEW YORK. THE UN ESTIMATES THAT MORE THAN 5 MILLION PEOPLE DIE EVERY YEAR FROM DISEASES RELATED TO THE INADEQUATE DISPOSAL OF WASTE. OUR HABIT OF THROWING THINGS AWAY IS GETTING OUT OF CONTROL. SO MUCH OF WHAT WE SEE AS WORTHLESS JUNK COULD BE USED BY SOMEONE ELSE.

TAKE A LOOK IN YOUR RUBBISH BAG

from small beginnings . . .

Victoria Finlay, of the Alliance of Religions and Conservation, tells how five students got together to replant a forest devastated by fire – sowing the seeds of what was to become a full-scale national youth action group for the environment.

The fire destroyed most of the forest around a small village in central Lebanon. The flames were put out within days. But 11 years later they are still having an impact – this time a good one – all around the eastern Mediterranean.

'The fire was a terrible thing,' remembers Monir Bu Ghanem, who was a 23-year-old student of business administration at the time the fire broke out. 'But instead of accepting it as fate, we decided to do something about it.' He and four young friends from Ramlieh village – an hour's drive from Beirut – immediately set up an action group.

'First we wanted to learn to fight fires and prevent them happening again. And second we wanted to plant trees, to get our forest back,' he says. One of the friends had an uncle who lent them some land; they transformed it into a nursery and grew 10,000 saplings. As these were more than they needed locally, they also sent young trees to other parts of the country.

At first they kept the decision group to five 'because that was the most people we could get into the car – which was where we held all our meetings,' Monir said. But it soon spread from a village scheme to become a full-scale national youth action group.

They set up a charity, the Association for Forest Development and Conservation (AFDC), and began work on projects extending far beyond Ramlieh. In the decade since the fire, they have planted 250,000 trees throughout Lebanon, and the original nursery has been extended to include a centre for eco-tourism and environmental meetings. AFDC's early plans involved working with the Al Shouf Cedar Reserve, in the centre of the country. Cedars – the scented trees that are the country's emblem – once covered Mount Lebanon and beyond, but are now scarce. Ten years ago the reserve had a few ancient trees – and the 50,000 goats grazing the area ate new saplings, giving them almost no chance to grow. ➔



ABOVE: Monir Bu Ghanem.

LEFT: Briefing a young researcher on the most ancient cedar in the reserve.

PHOTOS: VICTORIA FINLAY

around the World

The forests which covered the hills around my village in Sierra Leone disappeared over the years as villagers cut them down for firewood. So I decided to replant them. Now, with the support of my community, my friends and I grow seedlings and plant hundreds of trees every year.

Kaloko Abma, 20

Chemicals pumped into the air and water from local industries had severely damaged the environment of my valley town of Horlivka in the Ukraine. The air and waters were dangerously polluted, the trees and wildlife were dying and the children were getting sick. I set to rally the support of school eco-groups in the area, as well as local governmental and environmental groups, to clean up the waste and replant the damaged forests that lined the hillsides. My local community was sceptical at first but soon the local government provided transport to remove the waste from the clean-up sites, and 53 new school eco-groups were created by young people inspired by our example.

Ann Kokosa, 16

Monir and his friends worked with the herders to persuade them to keep their goats away. In exchange, AFDC buys local jam, honey and other organic food, sells it and gives the income to the villagers.

The reserve now has at least 250 plant species, and about 100 species of migratory birds visit the area. Every year more than 20,000 people visit the reserve, and see what can be achieved by the belief and determination of a few young people.

AFDC members are Druze, Christian, Shi'a Muslim and secular: they work together, regardless of religion or sect, in a country which was wracked by inter-religious civil war for nearly 20 years. The war darkened all their childhoods, but it also made them more determined. 'Lebanon is very behind the rest of the world in caring for our natural environment: we lost a lot of time during the war. Nothing happened then at all,' says Monir.

The charity also protects the Harissa Forest, which clings to the steep hills behind Beirut and its busy neighbour Jounieh, and has been named as one of WWF's ten most important Mediterranean forests. Five years ago it was in danger of being bulldozed to build hotels. But AFDC – with the support of the international Alliance of Religions and Conservation (ARC) – contacted the Patriarch of the Maronite Church, which owns most of the forest. He agreed to make it a sacred protected area. Following this example, the Jounieh municipality is now buying part of the forest for eco-tourism, and some of the private owners are pledging to protect their land as well.

For more info:

www.afdc.org.lb

www.arcworld.org

Rotting rubbish lying all over the Ogige market in Nigeria was spreading filth and infection. I organized a big clean-up campaign and publicized it, to stop local traders continuing with their method of 'anyhow garbage disposal'. Using volunteers from the local state prison, we showed that everyone can do something to help the environment.

Daniel Onyi Eboh, 23

Arabian clean-up

On 17 October 2003, more than 450 divers, snorkellers and other volunteers joined the Clean-up Arabia event and collected around 2,000 kilos of rubbish from beaches along the coast of the United Arab Emirates and Kuwait.

Dear Tunza,

I am a 16-year-old student, living on the beautiful Greek island of Corfu. In my everyday life I try to protect the environment. I do all my friends, my schoolmates environmental protection paper and batteries from my to the recycling

do everything possible to recycling, and try to inform and my neighbours about issues. I also collect the neighbours and take them bin with my own.

Next to where I live there is a beautiful river that is polluted and full of rubbish. For years now

I have been trying to save that river. I have

contacted the municipality, the prefecture, the Greek

Ministry for the Environment and many more.

I haven't seen many changes in the river, but I still hope that one day I will wake up and find it clean and beautiful like it used to be.

Yours sincerely

Thanos Kafkalidis

As a result of a school project he wrote on the environmental destruction of the river, Thanos was elected to the Greek Youth Parliament for 2002-03.

ASK TUNZA! ⁷ Wondy Asnake ANSWERS YOUR QUESTIONS

What good can i do for the environment when the problems are so far away?

Julien Asselin,
France

A: The problems are not really so distant. How come we cry if we are hit hard on the nose or break a leg? The nervous system sends the pain signal, and the eyes react. What happens to the environment is similar. If you damage – pollute – one area it has an impact in other places too.

What is the point in recycling and saving energy and water if everyone around me is so wasteful. And does it make any difference to the real world?

Ingrid Heindorf,
Germany

A: You have to live and lead by example. Others should not discourage you. As long as you maintain your commitment to environmental causes and willingness to do better, and take it as far as you can, people around you will recognize it and follow suit. You cannot win the heart and minds of others by discouraging yourself: you can by engaging them.

i Live in the city so there is no natural environment for me to protect. What else can i do?

Yukiko Sakurai,
Japan

A: A lot. You can grow a plant in your house, you can be engaged in clean-up activities, you can write or paint about the environment. Any of these will provide you with a sense of connectedness with the natural environment.

We know that the sea gets its water from rivers. these are freshwater. so from where does the sea's salt come?

Assan Mfouapou
Ngapout, President
of the Association
of Young
Environmental
Workers, Dschang,
Cameroon

A: Surprising as it may seem, much of the sea's salt has come from rivers, which have picked up salts and minerals from the rocks and riverbeds over the ages. Even now they carry an estimated 4 billion tonnes of dissolved salts to the seas each year. The salt is then concentrated as the sun's heat distills almost pure water from the surface of the sea, leaving the salts behind. So over hundreds of millions of years, what were originally slightly saline seas became saltier and saltier. The Red Sea and Persian Gulf, which have very high evaporation rates and receive little freshwater from rivers, are the saltiest on Earth. The polar seas are the least salty, because both melting ice and a lot of rain dilute the salinity.

Should i spend MY time campaigning with large organizations as they have more effect than i could ever have?

Jamie Wakefield,
UK

How can i get MY parents and teachers to be more sustainable when they say they work really hard already and haven't got time?

Christopher Lewis,
UK

How can i do things to protect the environment in my community when no one is interested or knows what i am talking about?

Benedetta
Rolando, Italy

Will anything i do in my daily life make a difference to the world's environment, especially when other people waste so much?

Amaidhi Devaraj,
India

A: It is not the size of the organization, but the size of the issue that rallies the hearts and minds of the grassroots. If you have the determination to do so, you can make a difference no matter how big or small the situation may be.

A: Think about things that will not infringe on their time. Have you considered suggesting your parents and teachers buy and use bio-products and recycled paper? The more you can involve them like that, the more they will be inclined to adapt to your way.

A: Why not consider why they are not interested. Is there an opportunity to talk or write about it, or to do something practical about it? You could form a small environmental club in your school or community where you could engage your peers to be active. When they see action, others will join you.

A: Every single action you take has an impact on the environment. If you show people you can live a normal life by consuming less, they will side with your actions and lifestyle.

talking action

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.

Seeking Solutions

Suvecha Pant

Nearly 100 young people – aged from 15 to 24 – gathered from over 60 countries to identify a concrete agenda for youth and the environment at the Tunza International Youth Conference in August. Coming from countries as distant as Ecuador and Australia, Canada and Benin, they met at the Dubna International University of Science and Culture in Russia.

YVONNE MAINGEY, KENYA, 16, TUNZA YOUTH ADVISORY COUNCIL

is the founder of the Loreto Convent Environmental Action Group, which works with the World Youth Organization on Climate Change. She wants to spread environmental education in schools, as she believes that society can be educated through children.

She said that the conference was a great opportunity to find out what others in Africa and the world were doing to improve the environment. 'I was very excited to be elected to the Tunza Youth Advisory Council for the Africa region,' she says. 'I hope I can fulfil the responsibility of representing my region at a global level.'

'We are all united by one concern, we all love nature,' Valery Prokh, the Mayor of Dubna – 120 kilometres from Moscow – told delegates. 'I hope this will be preserved in your countries.' Prof. O. Kouznetsov, the Rector of the University, added, 'We need to begin searching for a solution from here to the torturing of the environment and the world.'

The delegates drew up a ten-point commitment (see page 11), to protect and wisely manage the environment, to be implemented in their own countries, and planted trees in the university campus making sure that their stay at Dubna would be long remembered. They got to know each other at a discotheque continuing into the early hours of the morning and



diana magigwani, zimbabwe, 16

covers environmental issues for her local newspaper and is involved in organizations raising awareness on environmental protection. She supports 'Tree Africa' which plants and preserves the trees of her country and 'Water Africa' which works to give people in Zimbabwe access to safe and clean drinking water, and wants to work with anti-poaching campaigns. 'The best environmental action is to work together, and this conference is the first step to achieving this,' she says.

through matches of football, volleyball, basketball and table tennis. The Russian hosts put on a working boat ride on the Volga Lake and cultural shows with colourful dances and vibrant music. On the last evening the sky was lit by the bright red, orange, green and purple of a fireworks display.

Those who came from each region met in separate meetings to work out action plans and set up regional networks to exchange information. The African group suggested educating young children to care for the environment, and promoting campaigns like 'Tree Africa'. The Europeans suggested maintaining a website to spread the **TUNZA** message to the world, and focused on fundraising activities and approaching corporations for resources. The Latin American and Caribbean group wanted to alert governments by holding debates on environmental issues, and thought of holding a sub-regional conference.

West Asia concentrated on the 'Clean-up Arabia' campaign and January's Dubai Youth Conference. 'Clean-up campaigns have been successful in other parts of the world and should be adopted as a good way to raise awareness,' said Lara El-Saad of the United Arab Emirates.

Lori palano, canada, facilitator

works with children to find creative ways to protect the environment, like reusing goods and planting trees. She believes that governments should involve young people in environmental policy making.



'To get all agencies, companies, children and women enthusiastic about cleaning up our countries will lead to a better Arabia.'

**HANAN RAJAB,
BAHRAIN, 22, TUNZA
YOUTH ADVISORY COUNCIL**

is a member of the Bahrain Women's Society, which works for the improvement of the environment through women. She is convinced that teaching women ways in which they can care for their surroundings and use environmentally friendly products will ensure that their children follow the same path. Elected an advisor to the Tunza Youth Advisory Council she believes it is time that women were seen in their true role as vital contributors to achieving the goal of environmental sustainability.

networks and bridging the information gap. 'We need to use the media and utilize communications facilities to spread our message to the people,' said Sixuan Li of China. 'It is through communicating with each other that we will be aware of the environmental

**ANLIZ VERGARA,
ECUADOR, 15, TUNZA
YOUTH ADVISORY COUNCIL**

presented a paper at the 2002 Johannesburg World Summit on Sustainable Development giving leaders the children's view on environmental issues. She was elected an associate advisor on the Tunza Youth Advisory Council, and was a representative at the International Children's Conference. She is involved in 'Ecuador: Remember Our Future', a youth project based on sustainable communities.

problems and solutions learned by different organizations in our region.'

And through it all, delegates made new friends and developed new networks determined to make a difference. 'I felt the conference was like a grand family reunion,' said Itai ⇨

**RANJAN KUMAR BARUA,
INDIA, 22**

believes in involving young people in sustainable consumption. He thinks that eco-tourism needs to be promoted in his area, Assam, and his organization promotes bird watching, walking and other activities in the forests.

**KENNETH OCHOA
VARGAS, COLOMBIA, 20,
TUNZA YOUTH ADVISORY
COUNCIL**

works with Caretakers of the Environment International, a network of teachers and students around the world which brings them together for sustainable environmental activities. He believes that educating children on the environment is very important. 'Just teaching simple things like taking care of trees or respecting their surroundings goes a long way to achieving a beautiful future,' he says. He was elected an advisor on the Tunza Youth Advisory Council.

Those from Asia and the Pacific wanted to concentrate on communication through their large region by building



guzel valeeva, russia, 23

is the leader of the central environmental group in the town of Kazan, Russia. Her organization was established in 2001 on the basis of a programme held at the Dubna University for environmental youth groups. She believes that if her country keeps destroying the environment through emitting pollution or cutting trees, there will soon be no clean air. She hopes to increase public awareness of the benefits of a good environment and believes it would benefit the national economy.

Roffman of Israel. 'I was able to meet young friends from every corner of the globe who had been actively doing their part in improving the environment – and to share their experiences.'

ALAN WU, AUSTRALIA, 19, tunza youth advisory council

is with Wellspring, an Australian environmental lobby group, aimed particularly at encouraging youth input into environmental negotiations and policy development. Elected an advisor to the Tunza Youth Advisory Council, he is establishing a sub-regional youth environment network for the South Pacific.

Nicole Meyer, Switzerland, 21, tunza youth advisory council

is an international councillor of the World Student Community for Sustainable Development and is on the board of the local organization at the Swiss Institute for Technology. The organization's programmes include a national conference on sustainable cities, organizing a youth workshop/exchange about sustainable cities, writing a students' guide on sustainable development in everyday life, and trying to introduce sustainability into the university.

An advisor on the Tunza Youth Advisory Council, she is also active in the Swiss youth parliament and a local group where projects include a radio programme on sustainable consumption. She liked the conference's idea of regional action plans.



do these shoes work with this shirt?
 I need to get one of those
 yeah, give me a number two with a large collar.
 no, that one's a little too pole.
 Get one of those, top—
 you might change your mind later.
 I don't really need anything, I'm just looking.
Everybody has one.
 It's alright. Not great, but I'll eat it.
Do you have one yet?
 This is WAY too old.
 Oh my gosh! That's exactly the one
 I've been looking for!
 If you can't decide, just get both.
I MUST buy that!

PHOTO: JAMES B PLATKE/JUNEP/TOPHAM



to win the global battle for the environment we need the help of not just you but all the people in all the world. You can recycle 100 cans a year, but persuade 10 people and you will have recycled 1,000! The commitments the young people set down in dubna ask you not only to get involved, but to show everyone what you're doing, and get them to join in...

the Commitments

1 On a personal level and in my everyday life, I will aspire to become a role model and adhere to a sustainable lifestyle, with increased awareness of the limited resources of the Earth and a keen understanding they must be consumed respectfully.

2 I will establish communication with individuals and organizations involved in the protection of the environment in my community and in my region, and ensure that relevant information concerning them is included and shared with the TUNZA network through the UNEP website. I will also establish links and work with the Regional Offices of UNEP.

4 I will initiate a relationship with the mayor of my locality and the senior most official of my region to constructively engage them and explain the specific concerns I have in relation to my immediate environment.



3 I will organize gatherings with these partners to mutually support each other's activities and discuss concrete activities to reduce our collective ecological footprint.



6 I will start a sustainable production and consumption campaign in my community, aimed at providing practical and easy-to-use environmental and consumer rights information, including options for youth.

5 Similarly, I will acknowledge the need to address environmental issues with companies and private businesses and encourage them to integrate sustainable practices into their policies and fund environmental youth activities.

7 I will meet with school officials to discuss the inclusion of environmental education into school programmes and curricula, and volunteer to make appropriate presentations.

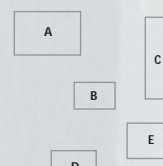


9 I will make sure that newspaper articles and television reports are published and aired as a result of these efforts.

8 I will develop non-formal education activities, such as: camps for children and youth; tree-planting campaigns; street theatre; environmental games; etc.



10 I will send updates of my activities to all TUNZA stakeholders through the UNEP website (or through the regular post if I do not have access to the Internet).



PHOTOS:
A. DEJA SCHLOSBERG/PCI
B. VLADIMIR AKIMOV/UNEP/TOPHAM
C. UNEP/TOPHAM
D. UNEP/TOPHAM
E. UNEP/TOPHAM
BACKGROUND: KITPREMPOOL
NATTA/UNEP/TOPHAM

ok - enough talking. now it's time for action!

Ecological Footprint

We all rely on the Earth's natural resources in our daily lives: for food and water, building materials and the energy we need to keep us warm. Over the years, many of us have enjoyed comfortable lifestyles, thanks to the land, trees, waters and minerals of the Earth. This is an impressive feat but are we asking too much of our planet? At the current rate of consumption we are using up more than it can provide. Worrying news for, as we know, there's only one Earth.

The map shows the Ecological Footprint of people in different countries around the world. The 'footprint' is a measure, developed by WWF, the conservation organization, of how many of the Earth's natural resources we use, and reflects the strain put on the planet by different people's current lifestyles.

The 'footprint' measures how much space we need to replace all the resources we are using and to deal with the wastes we produce: land to grow crops and graze animals, to grow trees for building materials or firewood, to provide drinking water, and to absorb the carbon dioxide produced by burning fossil fuels. As you can see, all

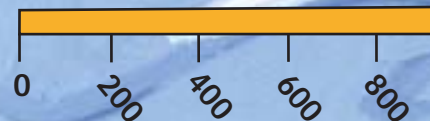
the people in the world don't use the same number of resources: people in developed countries use more than their fair share – the 'footprint' of the average person in the rich world is more than six times that of someone in the developing world.

And overall, to maintain our current lifestyles we need nearly one and a quarter times the space we have if we are to survive; and that figure has risen by 80 per cent in the last 40 years.

To find out more, and take the test to see how large your footprint is, log on to www.earthday.net/footprint/index

WorldPopulation

Source: United Nations, Population Prospects:1998 edition



we all have an impact on the earth, by virtue of our daily habits, the things we use, eat or throw away. so we can all help, by thinking about what we do and trying to tread lightly on our earth. Here are a few ideas of what you might do to help:

* Think about where your food comes from and the resources that were used to produce it and get it to you.

Processing, packaging and transporting food may use more resources than is really necessary or wise. So think about food and drink that are produced locally.

* Think about rubbish, too. So many things can be recycled or even mended – yet we just throw them away.

Look around you, use recycled products, like the paper on which TUNZA magazine is printed; recycle as much of your rubbish as you can, and

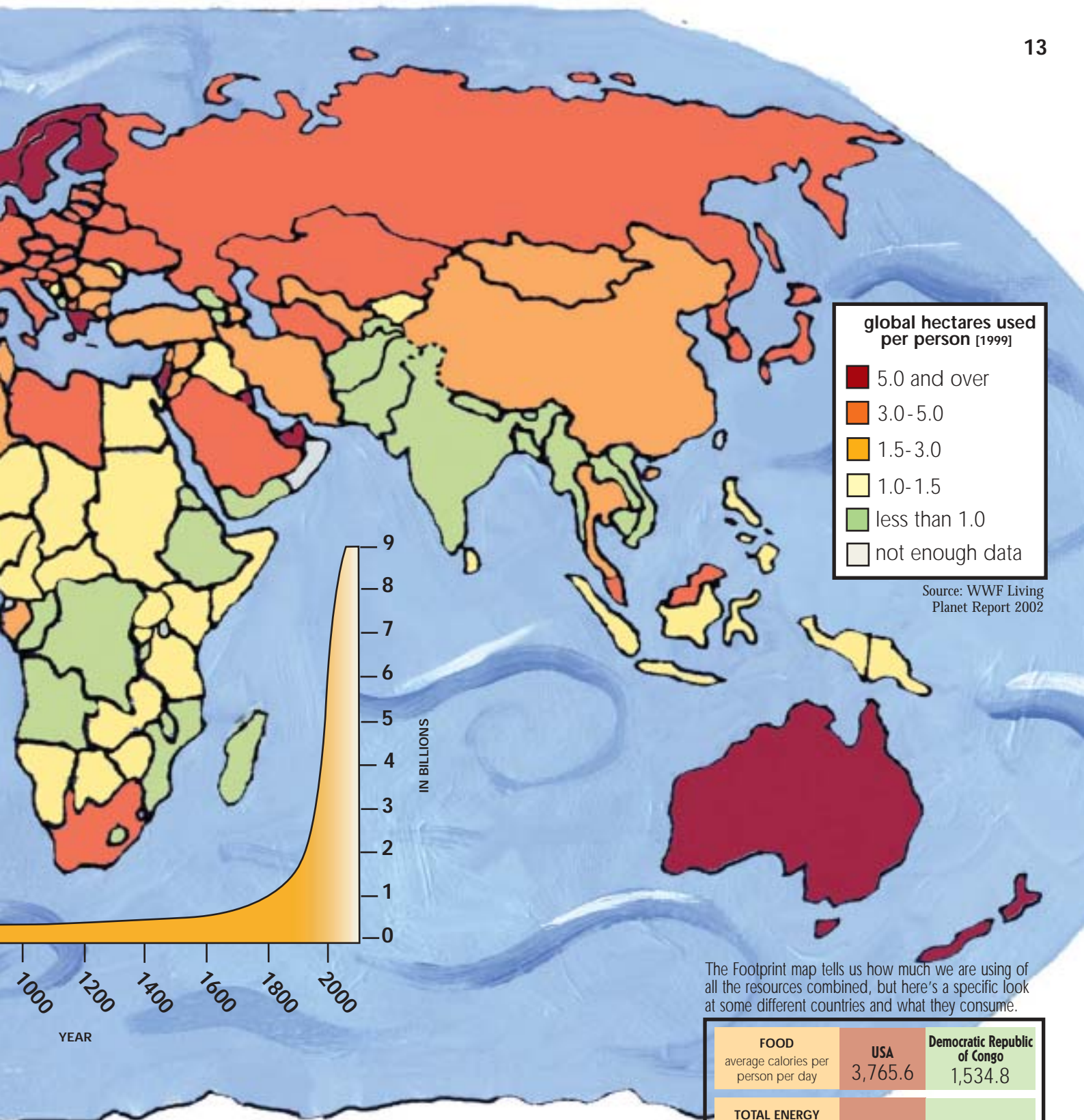
reuse unnecessary and damaging packaging like plastic bags.

* When travelling around think about the fuel you are using and the pollution you are creating.

Can you reduce this by sharing rides, using public transport, cycling or even walking? And think of the health benefits too!

* Try to conserve energy at work, home and school so that fewer resources need to be consumed to supply you.

Replace normal light bulbs with compact fluorescent light bulbs. These use less energy



The Footprint map tells us how much we are using of all the resources combined, but here's a specific look at some different countries and what they consume.

FOOD average calories per person per day	USA 3,765.6	Democratic Republic of Congo 1,534.8
TOTAL ENERGY CONSUMPTION kilos of oil equivalent per person per year	Iceland 11,452	Bangladesh 133
TELEPHONES INCLUDING MOBILES per 1,000 people	Norway 1,487.08	Democratic Republic of Congo 0.68
COMPUTERS per 1,000 people	USA 572	Niger 0.47
WATER WITHDRAWALS m ³ per person per day	Uzbekistan 2,598	Bhutan 13
LIFE EXPECTANCY AT BIRTH years	Japan 81.5	Botswana 36.1

and last longer whilst producing the same amount of light.

Turn off lights, televisions and computers when you aren't using them.

Maybe don't even use machines unless you need to: for example, you could air-dry your washing on a line.

If you are lucky enough to have a water supply to your home this may use resources to clean and treat the water, so try to use less. Take a shower rather than a bath (a bath uses at least four times as much water as a shower); install a 'low-flow' showerhead; and turn off the tap while you are washing your face and cleaning your teeth.

AND DON'T JUST DO IT YOURSELF. DISCUSS IT WITH YOUR FRIENDS AND FAMILY AND CONVINCE THEM TO JOIN YOU IN YOUR EFFORTS TO PRESERVE OUR PLANET.

Champion cyclist **Lance Armstrong** talks to Tunza

The wind against my face...



Lance Armstrong has overcome extraordinary adversity to become one of the world's leading sportsmen. Brought up by a single parent, he has overcome cancer to win the Tour de France – the world's most gruelling sporting contest – five times in a row.

He says he was 'born to ride bikes' – on 18 September 1971. He and his mother lived opposite a bicycle shop in the suburbs of Dallas, Texas, USA, and he got his first bike, 'an ugly yellow and brown contraption', at the age of seven, the start of a 'lifelong attachment'.

He recalls: 'Our first bike is a matter of kerb-jumping, puddle-splashing liberation. It is a merciful release from parental reliance – one's own way to the movies or a friend's house. It's the first chance we have to choose our own direction.'

He rode on successive bikes from the shop around dirt tracks, around the town, and then around the state. His mother encouraged him and nurtured his athleticism, and in 1989 he competed in his first major event, the junior world championships in Moscow.

Two years later he was the US National Amateur Champion. In 1993 he became the youngest ever road-racing World Champion. By 1996 he was the top-ranked cyclist in the world, but that October he was found to have testicular cancer. It had advanced so far that it had spread to his lungs and his brain and he was given a less than 50 per cent chance of survival.

He had to go through a new, and particularly aggressive, form of chemotherapy.

'When I was sick with cancer, I thought constantly about riding,' he remembers. 'I daydreamed about the sensation of riding through the countryside on a bike, the wind against my face. Riding up the Alps seemed like heaven compared with lying in a hospital bed, drugged, parched and burned from the inside out.'

'Before I had enjoyed riding and the living it provided me, but I hadn't truly appreciated it. After my near-death experience, when I confronted the possibility of never being able to ride again, my feelings for the sport multiplied.'

He stormed back to beat the world, winning the Tour de France five years in succession from 1999 to 2003, a feat only equalled by Spain's Miguel Indurain. In 2002 he was named *Sports Illustrated's* 'Sportsman of the Year' and the Associated Press 'Male Athlete of the Year'. He has written two books: *It's Not About the Bike*, detailing the pain of chemotherapy, and *Bicycle: The Noblest Invention*, published in 2003.

Within months of his diagnosis he formed the Lance Armstrong Foundation, which concentrates on helping people manage and survive cancer, and now describes the disease as 'the best thing that ever happened to me' because it helped him to 'wake up' and focus on the most important things in life.

Why does he bicycle on? 'I love to ride. To me, riding is living. Each time I ride in the Tour, I prove that I survived cancer. I ride to prove that, in a mechanized era, the human body is still a marvel.'



Q You are a sporting hero and legend; what do you feel is your greatest achievement?

A My greatest sporting achievement is winning my fifth Tour for sure. It was the hardest and the one in which I suffered and had to dig deep inside myself to win.

Q And how did you get started... what motivated you to become a cyclist?

A I was a triathlete and, as it turned out, I was best on the bike.

Q Was cycling your only sporting love... or were you interested in other sports?

A I began as a swimmer and I love running as well.

Q As a cyclist, you often ride or race through some of the world's most spectacular scenery. Does this inspire or affect you? And is there one type of environment you love the most?

A I love the mountains but when I race I don't get much chance to pay attention to the beautiful scenery!

Q What message of hope would you give to young people who have cancers or other physical problems?

A Never give up, find the best doctors you can, pay attention to your treatment and trust your doctors.

Q Do you have any heroes you would like to tell us about?

A My mother. She raised me and taught me to never give up.

Q What does the natural environment mean to you?

A I love being outside. I am out there every day on my bike.

Q Your determination is legendary. What message might you have for our readers on their determination to take action to preserve the natural world?

A Our natural environment is a gift and we all need to be careful to protect and cherish it.

PHOTOS: All EMPICS except below, far right: DARRYL CARON/AdkSportsFitness.com

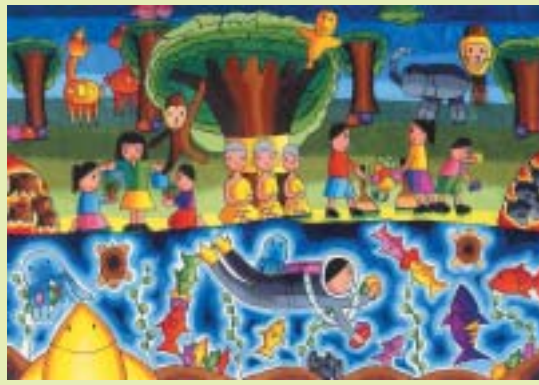




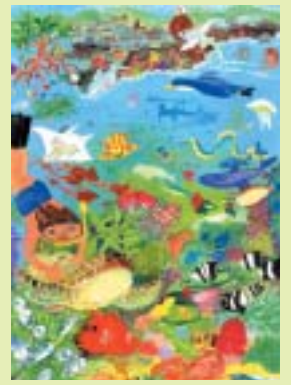
PRASCHIV OANA
MARIA/ROMANIA/11



ANDRONACHI
ALEXANDRA/ROMANIA/13



BOYAN NAVARAT JAROENTHAWORNPOKA/THAILAND/10



SHUICHIRO SHIMADA/JAPAN/13

The United Nations Environment Programme (UNEP) and the Foundation for Global Peace invite you to enter the Thirteenth Global Painting Contest:

SEAS AND OCEANS the environment through the eyes of young people

The contest, in which young people are asked to convey their vision for a cleaner, healthier and more environmentally friendly world, is running until 29 February 2004. All entries will be archived at the National Museum of Ethnology in Japan.

Prizes will be awarded for the best 500 entries which will later be used in the production of postcards, a calendar, posters, publications and exhibitions worldwide. Indeed, 12 of last year's winning paintings are being turned into posters.

ENTRY RULES AND CONDITIONS:

- * The Competition is open to young people between the ages of 6 and 15 years from all regions of the world.
- * Drawing paper size: 297 x 420 millimetres (approximately 11.7 x 16.5 inches).
- * Please include the following information in your main language and in English on the back of each painting: -Full name -Date of birth -Home address / phone number / e-mail address -Name of school and class or grade -Address of school (including name of country) -Telephone and fax numbers of school -E-mail address of school.
- * Style of painting is free: use crayons, coloured pencils, watercolours, etc.
- * Paintings that have been shown elsewhere or accepted for another competition should not be submitted to this competition.
- * Paintings that portray a particular individual, an organization or a brand name will not be accepted.
- * Do not include any word, phrases or sentences on the painting.
- * **Deadline: Entries must be in by 29 February 2004.**

FOR MORE INFORMATION, PLEASE SEE

http://www.unep.org/children_youth/kids/painting.htm

OR CONTACT UNEP Children and Youth/Sport and the Environment Unit

Tel.: (254 20) 623 148; Fax: 623 927

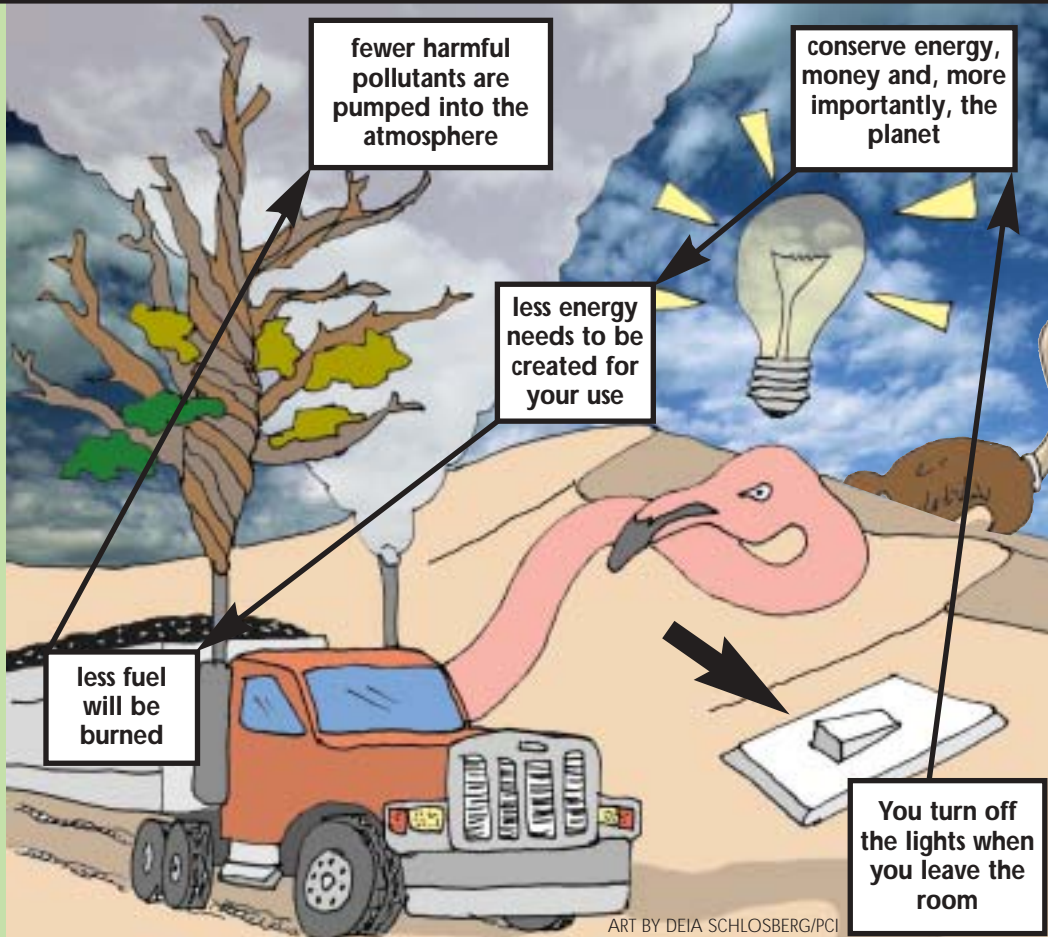
E-mail: children.youth@unep.org

Sponsors include Honda Motors, Ajinomoto, Ricoh Unitechno, Fujitsu, Takara, Showa Note, Sun Star Stationery, Japan Toy Culture Foundation, OITA Yuki Center and OYC Corporation. The contest is also supported by National Museum of Ethnology, Japan, and Japanese Ministries including those of the Environment, Foreign Affairs, Education, Agriculture and Forestry and Fisheries.

did you know?

...there are trees that live for over two thousand years?

...the Sahara desert is bigger than the USA?



ART BY DEIA SCHLOSBERG/PCI

...a flamingo can only eat with its head upside down

...an ostrich's eye is bigger than its brain?

get out and get to know your planet. it's a world waiting to be discovered!

for MY (future) CHILDREN...



Camila, second from right, with her family.

At 23, I am working for sustainable development because I dream of a better world for the children that one day will be mine.

I started working with communities and young leaders after realizing that reading, writing and developing great research projects was not enough if all that knowledge could not be transferred to other people. I began to give environmental education classes in partnership with a non-governmental organization called Cacto e Trevo, and through educational projects related to my university.

During my university years I participated in every conference I could and tried to make as many contacts as possible. That network enabled me to become familiar with international conferences and showed me that I could be part of international youth groups such as the Commission on Sustainable Development (CSD) Youth Caucus.

In June 2002 I participated with three other Brazilian young people in Rio+10 Brazil, a preparatory conference for the World Summit on Sustainable Development. We had to fight for financial support to be able to go. I understood then that as a young person I would have to battle to be recognized and respected.

I came back wanting to tell my fellow youth leaders about all the opportunities that exist to show the world the amazing projects we develop locally. I started a movement to establish youth councils in every Brazilian state, and to get recognition for the work done by young people. It would also enable youth groups to receive financial support and help with capacity building.

Camila Argôlo Godhino

Tunza Advisor for Latin America and the Caribbean

My work led me to the local Youth Retreat, where I was elected to the UNEP Youth Advisory Council. In August 2003, at the TUNZA International Youth Conference, my position was confirmed as a UNEP youth advisor, representing the Latin American and Caribbean Region. This position will enable me to do more than I ever thought. I will be able to learn with the youth from my region how to make the world more sustainable.

My country is changing. Youth leaders are starting to have an opportunity to speak and ask for greater involvement in government. One example was the establishment by the Ministry of Environmental Affairs of state youth councils for the environment in all 26 states and federal districts. The members of these councils have just participated in the Youth for Sustainability event which I was invited to facilitate, as well as being a member of my state's council.

I believe that we have to fight for our dreams even if everyone says that it is impossible for them to be achieved. Today's youth has an important role in making a better world for my children become a reality.

CLEAN india

Kavitha Iyer

Early this year, a class of some 45 students in a suburban school in Pune, nestled among the hills of western India, went home with a strange demand. Garbage. It was to be collected for a week, segregated meticulously and then carted off to school.

Some parents were aghast, but they warmed to the idea when they saw that their children, at the Dnyan Ganga School, were discovering the wealth hidden within waste. Today, the school has a miniature worm composting (vermiculture) pit, a lush row of plants fed on what it churns out, scores of happy parents whose kitchen waste has been used, and a clutch of students who stride about officiously after class hours, to check if anybody has left behind any litter.

The students' sense of environmental responsibility rubs off at breakneck speed on their peers. They are part of the CLEAN-India (Community Led Environment Action Network) campaign, a massive nationwide attempt to monitor and measure environmental degradation – and then spread the word that there's much to be done. The brainchild of a branch of Development Alternatives, based in New Delhi, it is at work in 35 schools in and around India's capital plus others in 34 cities all over the country.

As soon as the Dnyan Ganga students returned from their Diwali vacation in November, they began scouring Pune's busiest highways, water bodies, public taps and civic water pipelines armed with monitoring kits provided by CLEAN-India. The water-testing kits monitor 14 parameters for water quality including marking off levels of physical, biological and chemical components.

Similar air-testing kits, also used by school students, monitor suspended particulate matter, sulphur dioxide and nitrogen oxides in ambient air. The results from both monitoring exercises go to Development Alternatives' TARA laboratory on the outskirts of New Delhi, a modern research unit, packed with sophisticated equipment.

The findings are always worrying. This monsoon, students from New Delhi schools collected water samples from household taps, groundwater sources, handpumps and even slum areas and found frightening problems with the capital's drinking water. It contained ammonia, bacterial contamination – coliform, which indicates the water has been contaminated by human or animal faeces and causes a host of waterborne diseases – and nitrate values well above permissible norms.

Tests by CLEAN-India students across the country in early 2003 found that in 19 cities – from Pondicherry in the south to Dehradun in the north – at least half the drinking water supplies they tested were polluted above permissible limits.



TOP: A PRACTICAL LESSON IN VERMICULTURE.

RIGHT: AN AIR-TESTING PROGRAMME IN PUDUKOTTAI, A SMALL TOWN IN SOUTH INDIA.

PHOTOS: CLEAN-India

ABOVE: STUDENTS CONDUCTING A WATER MONITORING PROGRAMME IN KODAIKANAL, A PICTURESQUE HILL STATION IN SOUTH INDIA.

Colonel V Katju, who manages the programme, says that students 'interact with decision makers' and are catalysts for change. 'They will not rest until their voices are heard and remedial action is taken. From schools to communities, townships, districts, states and regions, a network of like-minded groups is created, fostering cooperation and community action.'

In Shillong in northeast India, a group of children cleaned a stream and convinced the local people not to dump their waste into its sluggish waters. At a school in Noida, near Delhi, students went straight to the management with test results showing bacterial contamination in their drinking water. A filter was installed to exclude it.

Colonel Katju says the students' greatest achievement is in changing people's mindsets and in helping to bring about policy changes like the use of natural gas for public transport, utilizing domestic waste for manure, creating green areas, and getting ecologically harmful practices banned. In the process, they also create a set of trained future citizens who care for the environment.

How does it work?

Schools are selected by local NGOs to participate in this clean-up scheme and their teachers are trained in teaching the environmental concepts. Then the children are provided with kits to carry out the pollution testing and the results go off to the TARA research unit in Delhi. Participating students have also started other projects in vermiculture, composting, fashioning paper bags from old newspapers, using non-toxic, natural colours for festivals, and encouraging others to reuse products.

What you can do:

Hooray for compost!

A third of all household rubbish can be rotted into compost instead of lying on landfill sites, so why not build a compost bin of your own? All you need is a wooden or plastic bin, and lots of fruit and vegetable scraps, leaves, weeds and grass.

Put it all in the bin, mix it around, add some water unless it's already wet (and newspaper if it's mostly kitchen waste) and cover, to keep everything dark and protected from the weather. Then just wait six months to a year (it will work faster if you keep opening it and mixing it around) and it will have transformed into a rich dark earth – compost! – which helps plants and crops grow. Remove the compost from the bottom and add more waste to the top, and it will continue to transform as long as you have rubbish to throw away...



ART BY DEIA SCHLOSBERG/PCI

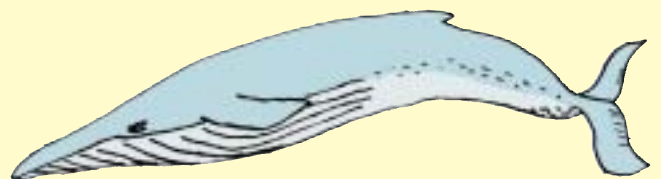
If you live in an urban area and see environmental concerns aren't the hot topic of the city, why not create a nature reserve in your back garden? Wherever you live, you can attract all kinds of animals by providing them with the right plants as a source of food and

shelter. Building a water source like a pond will attract birds and even frogs and toads, wild flowers attract butterflies, and planting shrubs, which produce berries and nuts, might bring small mammals like mice and voles. If you haven't got space for a nature reserve behind your house, build one on top! City dwellers the world over are building gardens on their roofs.

the plastic menace

On 24 August 2000, a Bryde's whale died on the coast of Australia, in Trinity Bay, near central Cairns. An autopsy found that the whale's stomach was tightly packed with plastic, including supermarket bags, food packages, bait bags, three large sheets of plastic and fragments of rubbish bags, but no food. More than 100,000 whales, seals, turtles and birds die from plastic packaging every year and there are so many plastic bags caught in the trees in South Africa, the people have ironically crowned them their national flower.

Ireland has levied a small charge on each plastic bag to stop shoppers using them every time they go to the supermarket. Use of the stores' plastic bags has dropped dramatically as people bring their own. Between us we are using between 500 billion and a trillion every year. Does your country need to introduce laws to convince you? Just bring your own reusable bags along to the shops and protect our world from the plastic menace.



ART BY DEIA SCHLOSBERG/PCI

I Live the Future – and it Works

by David Riddlestone

I am a British part-time student, studying music technology – and a DJ in my spare time. Eighteen months ago I moved, with my mother and teenage brother and sister, from a typical British semi-detached town house in the south of London to Bed Zed, just 3 kilometres away but one of the most extraordinary places in the world to live. Bed Zed stands for Beddington zero-energy development and is pioneering sustainable living.

People are often confused by the term 'zero energy'. I am often asked: 'How can a house work with no energy?' Some people sarcastically comment: 'what about your television!' Simply put, Bed Zed uses no energy produced by fossil fuels – and consumes half the normal amount of energy. It is 'carbon neutral' and so does not add to the problem of global warming. It achieves this with a combination of renewable energy and innovative architecture. Electricity and hot water are supplied by a combined heat and power plant, which meets all the development's needs burning waste wood from a tree surgery, instead of oil or gas. Any extra electricity generated is sold to the national grid.

The development is specifically designed to generate and hold heat, and this helps give our house a unique character. The walls are 70 cm thick, so

virtually no heat escapes through them – and we have windowsills deep enough to sit in. The entire south-facing wall is made of glass, and so provides solar heat even in the dead of winter, like a greenhouse – and gives us a conservatory on both floors. We don't have to open windows for fresh air because there are brightly coloured 'wind cowl' on the roof collecting air, which is then circulated around the

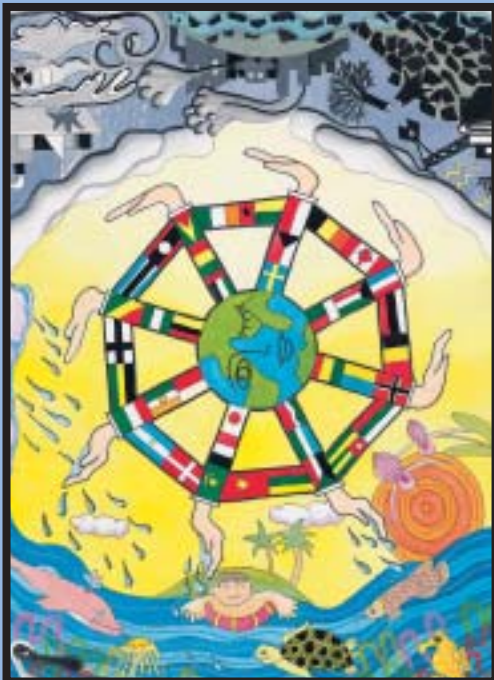
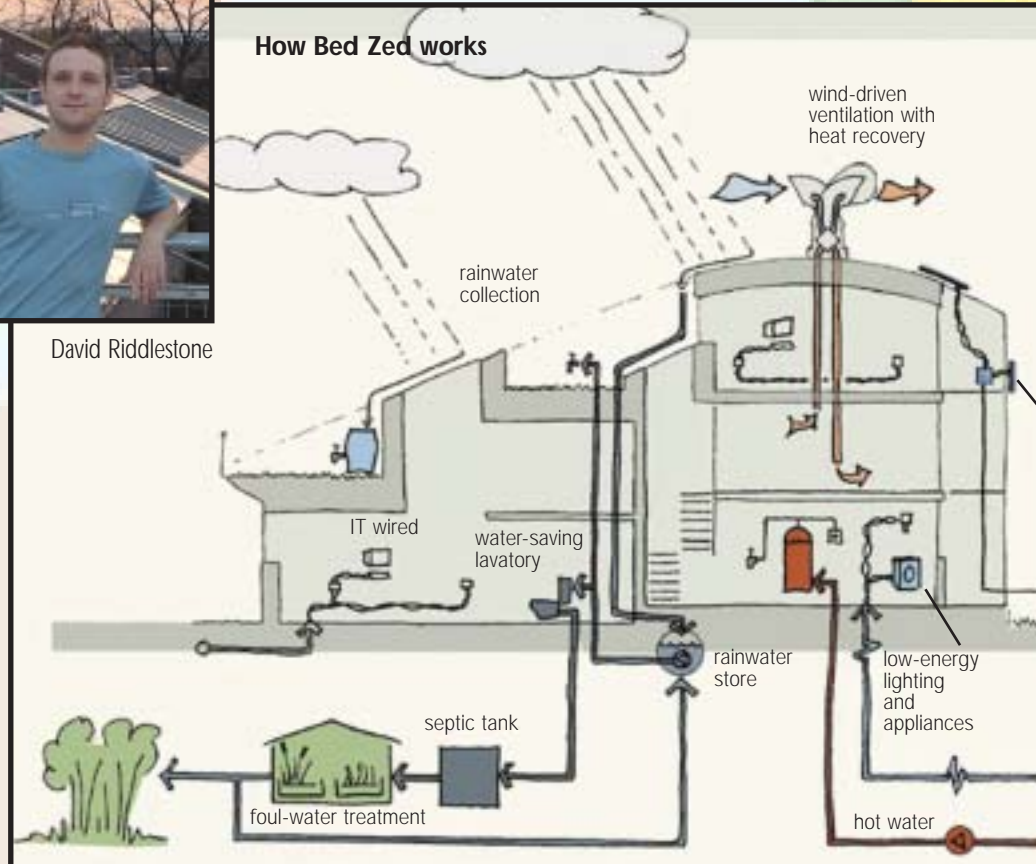
house. In winter cold air coming in is heated by warm air going out, in what is known as a heat exchange system.

Our water is metred and this has made us more conscious of our usage. A green water system is used for the lavatory and garden hose. The water is recycled in reed beds, which is more sustainable than treating it in the same way as drinking water.

For me, Bed Zed's best feature is the



David Riddlestone



Competition Winners

TUNZA ran a competition in the last issue to design a poster on the theme of WATER FOR THE FUTURE, and here we have the winning designs. Congratulations to Lau Hei Tung of Hong Kong (left) and Stanny Bastienne of Seychelles (below)! They have won postcards of their designs and a copy of *Pachamama: Our Earth, Our Future* as well as a teachers' guide with CD-ROM for their schools. Thank you to everyone who entered. The contributions were fantastic.

Why not have a look at our next competition on p16?



roof garden, opposite the back of our house and accessed via a small footbridge. I can't explain why it is different from a small ground-level garden, but it feels special.

The only problem with the house is a lack of storage space. There is no loft or basement and the small space under the stairs is not adequate for a family of four.

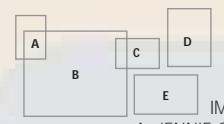
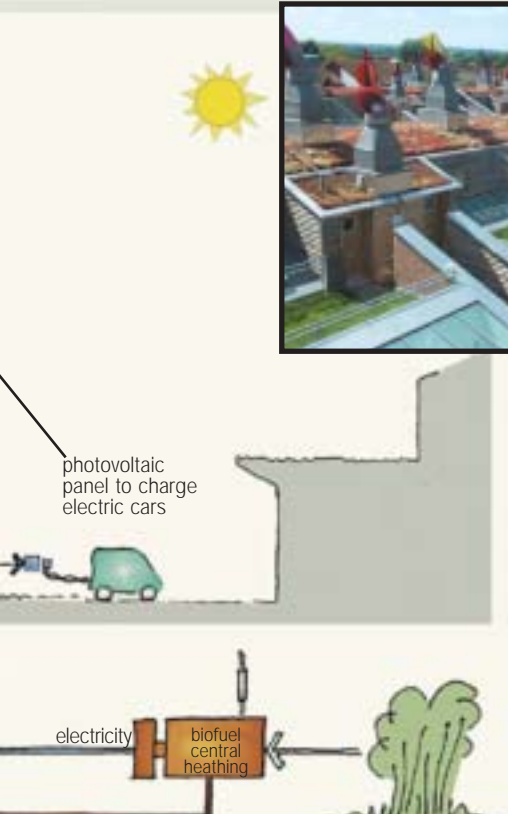
All this may sound somewhat futuristic and different to living in an average house – but I felt 'at home' much sooner than in our previous move. Bed Zed's concept and its exterior may be unique, but inside it is much the same as a normal house.

Above all there is a real community spirit: neighbours say 'Hello' and feel embarrassed about asking you to turn the music down! There are community activities such as aerobics and film clubs – and this summer there was even a festival. There is never any trouble, as this sense of community makes it very safe. It's a far cry from the situation on local estates, yet only a few yards away. I know people who live in very rough areas and they are constantly looking over their shoulders.

My mother is a

director of BioRegional Development Group, an environmental organization that developed the Bed Zed idea. She is also a single parent and leads a demanding life, but she does not own a car. At Bed Zed there is a communal 'car club': you pay a small cost for the mileage and time you use and there is a user-friendly internet booking scheme and swipe card system. On-site recycling banks and an organic fruit and vegetable delivery service are also available.

The success of Bed Zed rests on how easy it is to lead a sustainable lifestyle when given the opportunity, and the main force behind the community spirit here is a common belief that living this way makes sense.



IMAGES:
 A. JENNIE ORGAN
 B. ARUP
 C. BILL DUNSTER
 D. BIOREGIONAL DEVELOPMENT GROUP
 E. BILL DUNSTER
 BACKGROUND: BIOREGIONAL DEVELOPMENT GROUP

ALL IMAGES BELOW: UNEP



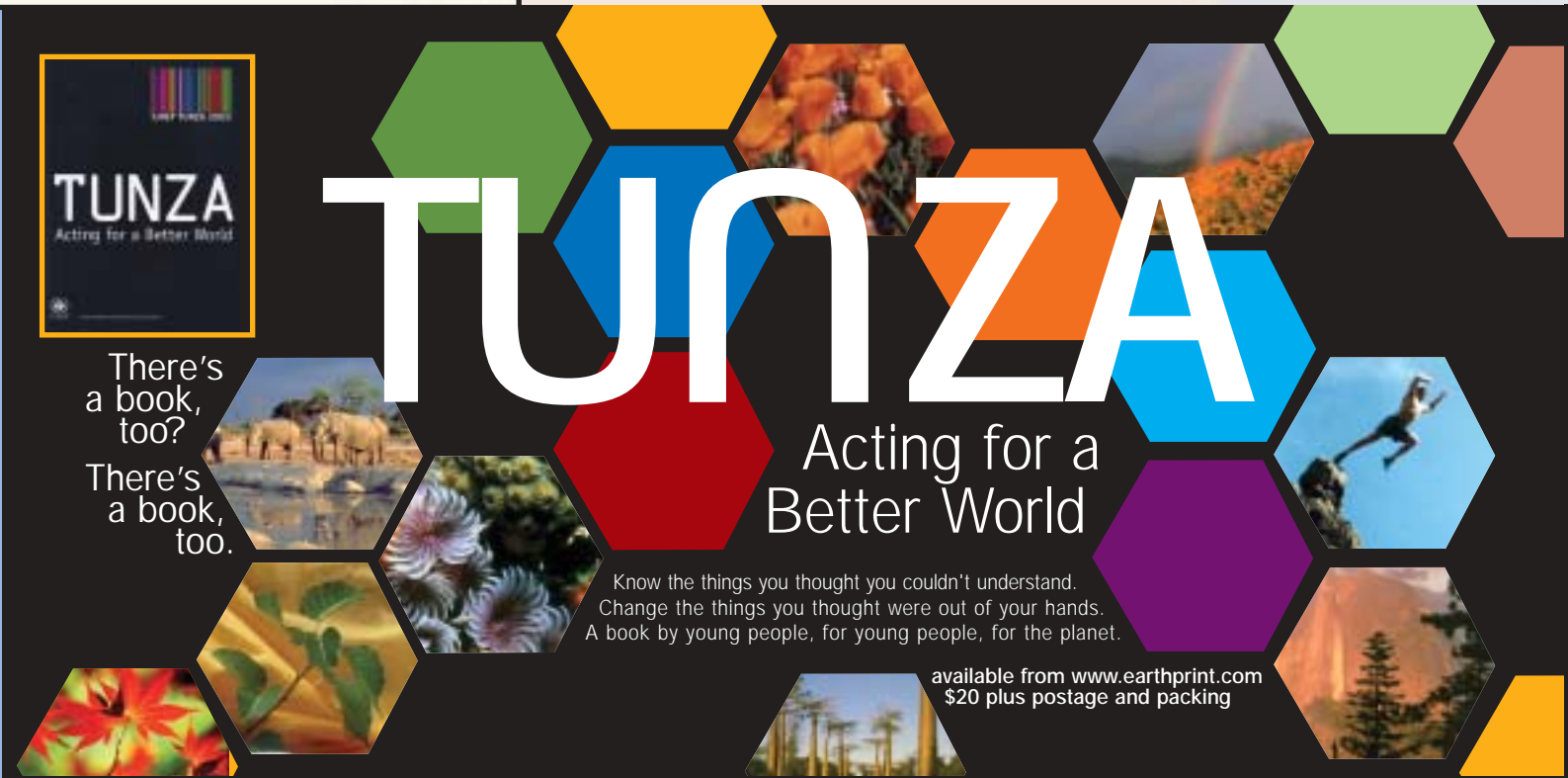
TUNZA

Acting for a Better World

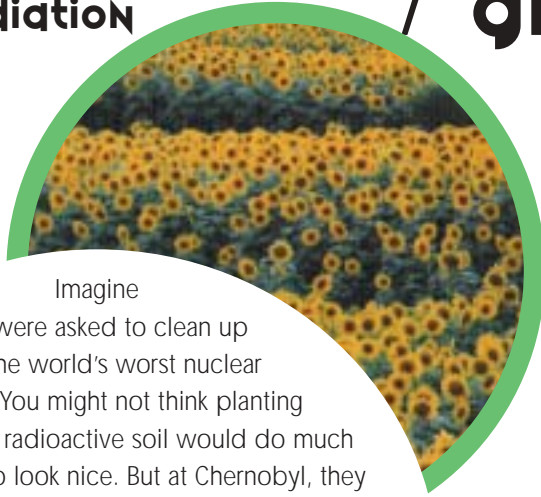
There's a book, too?
 There's a book, too.

Know the things you thought you couldn't understand.
 Change the things you thought were out of your hands.
 A book by young people, for young people, for the planet.

available from www.earthprint.com
 \$20 plus postage and packing



1. bioremediation



Imagine you were asked to clean up after the world's worst nuclear accident. You might not think planting flowers on the radioactive soil would do much good, except to look nice. But at Chernobyl, they have been doing precisely that: using sunflowers to clean up the contamination. It's a growing practice, as you might put it. Poplar and willow trees are being used to clear petrol from old gas stations from groundwater. And geraniums are particularly good at taking up polluting heavy metals like nickel, copper and chromium from contaminated soil: the metal can then be recovered to use again.

3. enviro tax



We are used to governments taxing goods. How about them taxing 'bads', like environmental damage, instead. Green taxes are growing in popularity. Income tax levies a toll on jobs – good things, which we want to increase. The new taxes penalize pollution and wasteful energy use, which we should reduce. So switching from one to the other both makes the environment cleaner and increases employment. Some European countries have now begun to do this. Finland and the United Kingdom, for example, have cut taxes on jobs to penalize dumping rubbish; Germany, Italy and Spain to tax fuel; Sweden and France to crack down on pollution; and Denmark to tax pesticides. It is all fairly small scale so far. But it is likely to increase as politicians realize that these may be the seemingly impossible – popular taxes.

1. NANDAKUMAAR/UNEP/TOPHAM
2. BANSON
3. VLADIMIR AKIMOV/UNEP/TOPHAM
4. MARK EDWARDS/STILL PICTURES
5. JOHN LAI TECK KEE/UNEP/TOPHAM
6. HONDA
7. GREENPEACE

7 green wonders OF

2. solar power

Every year the equivalent of some 90,000 billion tonnes of coal lands on the surface of the Earth as solar energy. Capturing and using just one twentieth of 1 per cent of it could give everyone on Earth a good standard of living. It is distributed free by nature – without oil tankers, pipelines or electricity grids – and most goes to the world's poorest areas. Increasingly we are beginning to capture it with solar cells, originally developed for the space programme. The number of solar cells in the world has been doubling every two years, and their cost has been tumbling. They still only provide less than 1 per cent of the world's electricity, but with more research and development for this clean form of energy, it is likely to power the future.



4. on the level

How could a piece of transparent hosepipe, filled with water and tied between two sticks, save a whole people? It happened in Burkina Faso, on the southern edge of the Sahara. Twenty years ago many villages in its Yatenga region faced disaster because they had lost a third to half of the precious soil in which they grow their crops, washed away by the rain. Then, helped by the charity Oxfam, the local farmers used the hosepipe as a crude spirit level to allow them to lay level lines of stones along the contours of their fields. The stones slowed down the speed of the rainwater running off the land, and held back the soil it carried. Harvests rose by 40 per cent, the technique spread to 400 villages, and the area even began exporting surplus food.



THE WORLD

5. poverty-fighting banks



Would you lend money to a very poor person? The banks won't; they don't think they'll get their money back. But so called 'microcredit' schemes, providing loans to some of the Earth's poorest people, are beating back destitution all over the world. The idea started when a Bangladeshi economist, Muhammed Yunus, lent 62 cents each to 42 craftsmen, so that they could buy materials in advance, and sell the finished products when they were offered a good price. It worked so well that he went on to found the Grameen Bank, which now serves 40,000 villages in his country, helping people buy equipment and start businesses. It has lifted a third of its clients out of poverty. By 1999 over 23 million people worldwide had received loans from similar 'banks': the aim is to reach 100 million by 2005.



His great-great-grandfather, Henry Ford, brought the mass-produced petrol-driven car to the market in 1903. Now William Clay Ford, the present CEO of the Ford Motor Company, says that cars fuelled by hydrogen 'will finally end its 100-year reign'. Big car companies including Toyota, BMW, DaimlerChrysler, Honda, General Motors and Nissan are all developing hydrogen cars that do not cause pollution, or add to global warming; they only emit water. DaimlerChrysler estimates that one in every four new cars will be driven by the gas by 2020; BMW puts it even higher at one in three. But to be truly non-polluting, the hydrogen must be made using renewable fuels, not oil, gas or coal.

6. Hydrogen cars



It is, you could say, a cool way to save the planet. Eleven years ago, the environmental group Greenpeace – usually a critic of industry – went into business itself, promoting environmentally friendly fridges. Until then, fridges were all cooled by chemicals that attack the Earth's ozone layer, or help cause global warming. Instead the group backed a new invention, using non-polluting gases, which they called Greenfreeze. Immediately big fridge-making companies attacked, trying to stop the new development. But the public backed it, and soon the companies had to start making them themselves. Now there are 80 million Greenfreeze fridges humming away around the world. The whole of German industry has converted to the technology, and more than half the 10 million-plus fridges sold in China each year are Greenfreeze ones.



7. greenfreeze

