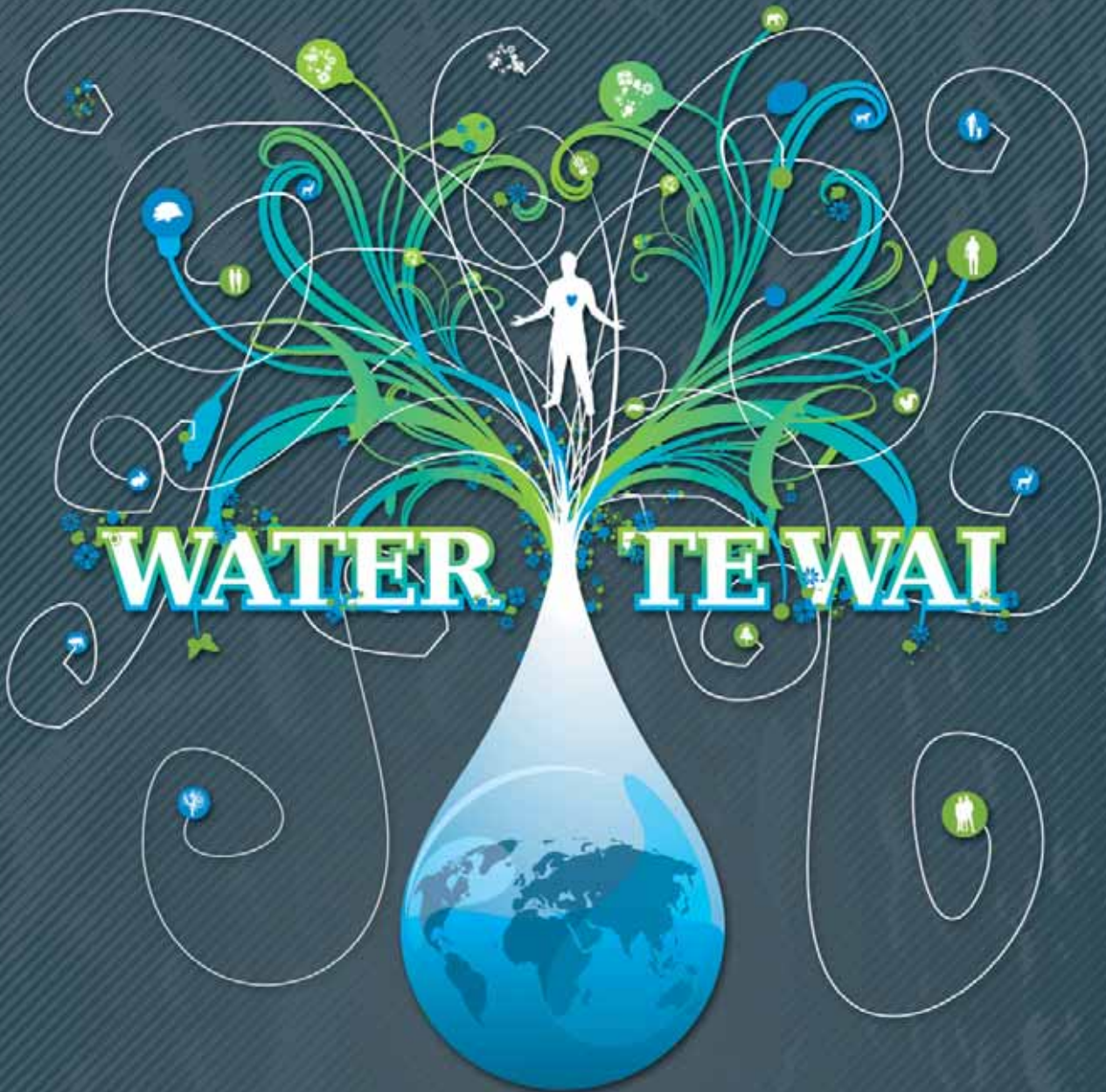


# GLOBAL ISSUES

21 ISSUE

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2007

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“**WATER** IS THE  
SOURCE OF ALL **LIFE**”  
THE QUR'AN



Change for a just world

# Wallowing in water *Ka whakatā ki roto i te wai*

ASKING QUESTIONS

HE PĀTAI

Cool, soothing, refreshing, slippery, and just plain delicious. Drink, swim, slide, splash, wallow, wade, and wash in it. Water is a wonderful, wonderful liquid. In Aotearoa New Zealand, water pours from the sky in torrents, it surrounds our islands, it runs in rivers down our mountains, it gleams in vast lakes, and collects in puddles on our streets. When we turn on our taps, out it comes, ready to drink – but more than one billion people worldwide do not have the same access to safe water that we do.

Water is essential to life – but is access to it our right? People are totally dependent on having access to clean water; so what happens when water dries up? Or becomes too dirty to drink? Or there just isn't enough of it to go around? What would we do if water wasn't freely available to us, and we had to pay for each drop that we used? This edition of Global Issues has teamed up with Oxfam to take a closer look at issues relating to access to water.

*Wherever one looks, the life of this world depends on water. But if the water itself feels thirsty, from what well can one quench its thirst?* Somali nomad, Ogaden desert, Africa



## GLOBAL ISSUES

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If you have any enquiries or would like information on global or development issues, contact us:

phone 04 472 9549

fax 04 496 9599

email schools@globaled.org.nz

or check our website www.globaled.org.nz

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# Water, Water, everywhere... *He wai, he wai ki wīwi ki wāwā*

All the water in the world, in the ice caps, the oceans, the clouds, in the rivers and under the ground, is about a billion years old. There's always been the same amount of water on Earth, it just moves around the planet, changing to ice, seawater, rain, or clouds. The tiny percentage of the Earth's water that humans can drink – fresh water – is ancient too. Maybe a dinosaur, thousands of miles away, once drank your next sip of water! Without water, nothing on earth could

survive or grow. We are even made of water: 70% of our tissues and 55% of our blood, is water. In addition, two-thirds of the planet's surface is covered by water. On land, fresh water sustains the *ecological* balance necessary for the planet's health; without it, all the people, animals, and plants in the world would die. In fact, after only three days without water, you or I would die.

## ACCESS TO WATER *HE RAWA TE WAI*



This Brazilian favela has only one water tap for the entire community. © UNICEF/HQ00-0360/Balaguer.



Saadat and Osuda Hasanova in Tajikistan fetch water two or three times every day. © Karen Robinson/Oxfam.

*"It's really hard work because the water buckets are so heavy ... I've heard that in other places people just turn on a tap in their house and the water comes out. I would love a tap like that in our house."*

To meet our basic needs, we each need 20 to 50 litres of clean water, every day. But more than one billion people worldwide – one sixth of the world's population – don't have the access to safe water that they need. As in many places, in Brazil this is partly because although water resources are plentiful, they are unevenly distributed. For example, about 12% of households in Rio de Janeiro do not have running water, over 30% do not have sewage connections, and official electricity connections reach only 70% of the population. In *favelas* – where most people without these services live – residents use illegal connections to water and electricity instead, and sewage is often dumped straight into rivers, drainage ditches, and lagoons.

## WATER, WATER EVERYWHERE ... BUT BARELY A DROP TO DRINK ... *HE WAI, HE WAI, KI NGĀ WĀHI KATOA... ENGARI NOA IHO HE KŌPATA HAI WHAKANĀ I TO HIAINU ...*

There are 1.4 billion km<sup>3</sup> of water on Earth, liquid and frozen. But hardly any of this can be used by humans because 97.5% is in the oceans and is too salty to drink or use for irrigation. Of the remaining 2.5%, two-thirds is locked up in the polar ice caps and permanent snow cover – although this amount is getting smaller and smaller every day because of global warming. Only 0.26% of the world's water is contained in the fresh water lakes and rivers from which we obtain most of the water that we use – and this water isn't just used for drinking, we have to share it with big users like industry and agriculture. Furthermore, if our use of water

resources continues to rise at its current rate, humankind could be using over 90% of all available freshwater within 25 years, leaving just 10% for all other living beings.

| CONSUME     | World | Africa | Europe |
|-------------|-------|--------|--------|
| Agriculture | 69%   | 88%    | 33%    |
| Industry    | 23%   | 5%     | 54%    |
| Domestic    | 8%    | 7%     | 13%    |

Source: [www.wateryear2003.org](http://www.wateryear2003.org)

## KEY WORDS *NGĀ KUPU MATUA*

### Ecological

The relationship between living things and the environment.

### Favela

Shantytown or slum, usually on the outskirts of Brazilian cities, in which millions of people throughout Brazil live.

# Global Impact *Ngā Take O Te Ao*



Imagine you're very, very thirsty. You can see a lovely, cool glass of water, and it's within your reach – but you can't get to it. There are rules and laws and restrictions that prevent you getting to that glass of water that you need. As you sit there in frustration, someone comes along, and swallows all the water in one gulp, then continues walking along; not even noticing you sitting there.

This is close to what it's like for the many people who have little or no access to safe water. There's enough water in the world for everyone, but **privatisation**, restricted access to waterways, diverted waterways, pollution, and laws set out by government that prevent traditional usage of waterways, are preventing many people from having the access to water that they need.

**1** When the **Bolivian** government leased the Cochabamba water supply to a corporate giant in 1999, not only did water rates soar, but the locals discovered that the government had promised the corporation annual profits of 16%. In protest, the people took to the streets, blocked roads, fought riot police with stones and slingshots, and called a general strike from work. Despite massive resistance from the government, their protests eventually paid off and the water supply was returned to Bolivian hands.

**2** "I will never forget how I suffered due to the lack of water. There was no water to wash the baby or myself. I was ashamed of the unpleasant smell, especially when my neighbours visited me."

Misra Kedir, recalling her child's birth in Hitosa, **Ethiopia**. In the last 20 years, Ethiopia has experienced recurring droughts followed by food shortages and famines. In rural areas, only 12% of the population has access to an **improved water supply**, and 7% of the population has access to adequate sanitation services.

**3** In 2004, as a result of Māori in the Marlborough Sounds applying to the Māori Land Court for determination of the **foreshore and seabed** in the area as Māori customary land, the Crown passed the Foreshore and Seabed Act 2004. Among other things, this Act said that the Crown owns **Aotearoa New Zealand's** foreshore and seabed (except for the privately owned parts). In response to

the Act (and the way in which the Crown had dealt with the issue of Māori claims to the foreshore and seabed) there was widespread protest by Māori and other New Zealanders and a **hīkoi** from many parts of the country to Wellington. Since then, there has been ongoing and increased awareness by many Māori of the need to protect or reclaim customary rights to waterways.

**4** Only 43 years ago, the Seine River in **France** was considered 'dead'. It was so polluted by industry and agriculture that native fish had disappeared, plant life was dying, and the water was unsafe for swimming. Fortunately, the government realised that it was in the country's best interest to have a healthy river and set up wastewater treatment plants, criteria for water quality, controls for water use by industry, and much more. Now, although there are still some problems, things in the river have changed for the better; and where the Seine travels through Paris, there are even fishing competitions.

**5** Agriculture and industry divert large amounts of water from rivers – sometimes with disastrous effects. The Huang (Yellow) River in **China** ran dry for 600 kilometres from the river's mouth upstream every year in the 1990s; and in 1997, it ran dry for a record 226 days. This had a devastating effect on water quality, the lives of people living along the river, on the local and national economy, resulted in the suspension of industrial activities, and impacted on the water supply to local cities.



## ICY COLD FACTS HE KŌRERO PONO NŌ TE KAUPAPA MAKARIRI

- Every day 4,000 children are killed by diarrhoea, a disease often caused by dirty water.
- 20% of the world's population doesn't have access to safe drinking water.
- It is mainly women and girls who are responsible for collecting water in areas where there is no running water, and many walk several kilometers each day to fetch water for their families.
- Only 25% of the poorest households in developing countries have access to piped water in their homes, as compared to 85% of the richest households.

## DIRTY WATER THERE = DIRTY WATER HERE HE WAI PARUPARI KAI KŌRA = HE WAI PARUPARU KONEI

Water pollution is a global problem. This is because water does not remain in one place but moves around constantly. Much of it is drained through rivers and streams from high to low ground and eventually into the oceans. It is also constantly recycled between the land, the oceans and the air; meaning that water and air pollution are linked too. For example, air pollution from city traffic and industry can become mixed with water vapour in the atmosphere and affect the quality of water in far away places.



©Luca Barbieri, International School of Geneva in Switzerland, for the UNECE Convention on Long-range Transboundary Air Pollution.

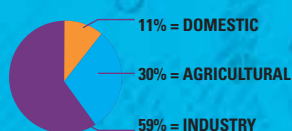
## TOO MUCH OR TOO LITTLE TE MAHA, TE ITI RĀNEI

There is nothing fair about who gets rained on and who doesn't. You could live for 100 years in the middle of the Sahara Desert and collect less rain than falls in a single day in Hawaii. In wet, tropical parts of the world, downpours of rain can be so heavy that rivers burst their banks, crops get washed away, and floods destroy the life that water is supposed to nourish. In China, the flooded waters of the Yellow and Yangtze Rivers have drowned millions of people over the years. At the opposite extreme is *drought*, and *drought's* close friend famine. In an attempt to regulate the flow of rivers, and divert water to places that aren't getting enough, governments sometimes decide to dam rivers. Unfortunately, the results can be disastrous.

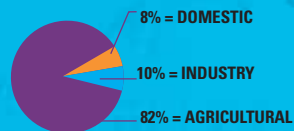
## FEELING STRESSED

"Global freshwater consumption rose six-fold between 1900 and 1995 – more than twice the rate of population growth. About one third of the world's population already lives in countries considered to be 'water stressed' – that is, where consumption exceeds 10% of total supply. If present trends continue, two out of every three people on Earth will live in that condition by 2025." Kofi Annan, UN Secretary-General, in *We the Peoples*, 2000.

### WATER USE IN HIGH-INCOME COUNTRIES



### WATER USE IN LOW AND MIDDLE-INCOME COUNTRIES



## DAMMING INDIA TE MAHI PĀPUNI KI INIA

In the years since India gained Independence in 1947, dam-building grew to be equated with Nation-building. 3,300 dams have been built in the past 60 years; and a further 1,000 are under construction. Yet one-fifth of India's population – 200 million people – does not have safe drinking water and two-thirds – 600 million – lack basic sanitation.

"People say that the Sardar Sarovar Dam is an expensive project. But it is bringing drinking water to millions. This is our lifeline. Can you put a price on this? Does the air we breathe have a price? We will live. We will drink. We will bring glory to the state of Gujarat." Urmilaben Patel, wife of Gujarat Chief Minister Chimanbhai Patel, speaking at a public rally in Delhi in 1993.

"We will request you to move from your houses after the dam comes up. If you move it will be good. Otherwise we shall release the waters and drown you all." Morarji Desai (Prime Minister of India 1977-1979), speaking at a public meeting in the submergence zone of the Pong Dam in 1961.

"Why didn't they just poison us? Then we wouldn't have to live in this s\*\*t-hole and the Government could have survived alone with its precious dam all to itself." Ram Bai, whose village was submerged when the Bargi Dam was built on the Narmada. She now lives in a slum.

"[Dams are] a brazen means of taking water, land and irrigation away from the poor and gifting it to the rich. Their reservoirs displace huge populations of people, leaving them homeless and destitute. Ecologically, they're in the doghouse. They lay the earth to waste.

They cause floods, water-logging, salinity, they spread disease" Arundhati Roy, author and activist.



*Plans to dam the Narmada River have inspired one of the world's most effective people's movements. Source: Harikrishna, www.irn.org.*

## KEY WORDS NGĀ KUPU MATUA

|                              |  |
|------------------------------|--|
| <b>Drought</b>               | A long period of unusually low rainfall, especially one that affects growing or living conditions for the worse.   |
| <b>Foreshore and seabed</b>  | The seabed is land that is completely under seawater. The foreshore is land that is regularly covered by the sea's tidal ebb and flow – it is the wet part of the beach. |
| <b>Hīkoi</b>                 | A march. In this case, a protest march.  |
| <b>Improved water supply</b> | Water supplies that are likely to provide safe drinking water, such as a household connection or a protected spring.   |
| <b>Privatisation</b>         | To change (an industry or business, for example) from governmental or public ownership or control to private enterprise.   |

# Perspectives on water

He Whakaaro Wai

WATER

TE WAI

## HE TANIWHA – MONSTERS OR GUARDIANS?

Nā Hiria McRae, Te Kura Māori, Victoria University of Wellington School of Education

A lot of us have grown up understanding “taniwha” as being mythical monsters or bad omens, lurking in our streams, lakes, rivers and oceans. For a number of Māori tribes, taniwha have the role of “kaitiaki” or guardians in our environment, especially in the many waterways of Aotearoa New Zealand.

Stories of taniwha as guardians of the sea, date back to the arrival of the Polynesian explorer Kupe. The taniwha Tuhirangi guided Kupe to New Zealand and was then placed at French Pass in the Marlborough Sounds, to guide other canoes through dangerous waters. Tuhirangi lives there in a cave called Kaikaiawaro. Other examples include: the belief of the Ngāti Wai people, who used to live on the Poor Knights, Great Barrier and Little Barrier Islands, that dolphins acted as messengers in times of need, bearing news from the islands to the mainland. The tribes living around Cook Strait talked of Paneiraira, a taniwha that resembled a whale. It would help canoes cross the tricky strait between the North and South islands.



Another sea creature several Māori legends relate to are sharks. In the far north, the ocean taniwha Ruamano took the form of a mako shark. If a waka overturned, the crew called upon Ruamano to deliver them safely to land. When the captain of the Te Arawa canoe, Tamatekapua was voyaging towards New Zealand, he met Te Parata, an ocean creature who almost swallowed the canoe. Tamatekapua and his crew were saved by a shark. The shark symbol can be seen in Māori artworks displayed in Te Arawa marae.

A well-known tribal proverb about the Waikato tribes refers to the dwelling of taniwha in the Waikato river: “Waikato-taniwha-rau. He piko, he taniwha. He piko, he taniwha.” (Waikato of a hundred taniwha. At every bend a taniwha can be found) It is said these taniwha represent a chief or person of tremendous influence, expressing the mana of the Waikato people.

*The taniwha, Ureia, from the interior of Hotunui, a Ngāti Maru marae from Thames. This marae is now in the Auckland War Memorial Museum.*

## HOLY WATER TE WAI TAPU

Indra, Hindu God of Rain.



Throughout history, and around the world, water has been sacred. But partly because for many (but not all) of us, our source of water is the kitchen tap or a plastic bottle, it can be easy to forget that water is a gift. In India, every river is sacred. For Hindus, life on earth is related to the release of heavenly waters by Indra, the god of rain. Indra’s enemy Vrtra, the demon of chaos, held on to the waters and prevented creation from occurring. When Indra defeated Vrtra, the heavenly waters fell to earth and there was life.

According to Hindu mythology, the Ganges River begins in the heavens. Because the Ganges comes down from heaven, it is seen as a sacred bridge to the divine; which is why many Hindus cast the ashes of their dead into that river. Catholic, Anglican, Islamic, Sikh, and Eastern Orthodox religions all either bless water (making it holy) or consider some sources of water to be blessed or sacred. The Well of Zamzam, for example, is one of the holiest sites of Islam. Muslims believe that the well was revealed to Hagar, Ibrahim’s wife. She was desperately seeking water in the hot, dry valley for her baby son Ishmael, but couldn’t find any. God then sent the angel Gabriel, who caused the spring to appear. Since then the spring has been considered blessed.

# What do you think?

*He Aha Ōu Whakaaro?*

## TELL ME ABOUT A BODY OF WATER THAT HAS SPECIAL SIGNIFICANCE TO YOU.

**Evie:** I am amazed at how the whole ocean all over the world hasn't deteriorated. We pollute the ocean with all the oil spills and sewage that pours into it is still clean enough for animals to live in and such.

**Lisa:** A body of water that has special significance to me is the Taieri river. It runs through the bottom of our property and down by the main part of the river, it is a great place for picnics or for going swimming on a hot day, which lots of people do in the summer. It has special significance to me because we quite often pack a picnic lunch and have it down by the main part of the river which is always a nice way to relax.

## WHAT DO YOU THINK OF THE IDEA OF OWNERSHIP OF WATERWAYS – FOR EXAMPLE OF RIVERS AND LAKES?

**Evie:** I think it is better if the government owns the lakes and rivers because then we know that someone would be looking after it. Also so then the public too could enjoy the river/lake.

**Lisa:** I really dislike this idea, I don't think that it would be fair. For example, take the locals that have lived in that area for ages and love nothing more than having a picnic lunch and



**Evie (13),** Tawa College, Wellington



**Lisa,** Queens High School, Dunedin

going swimming in the river. Suddenly, this privilege is taken away from them. I don't think that one person or a group should be allowed to own a waterway when it was intended for everyone to enjoy.

## DO YOU TRUST THAT THE WATER THAT COMES OUT OF YOUR TAP IS GOOD TO DRINK? WHY/WHY NOT?

**Evie:** I trust the water because I've never had anything coming out of the tap looking weird or tasting funny. But I am afraid that one day someone will overlook something and something poisonous might drip into the system.

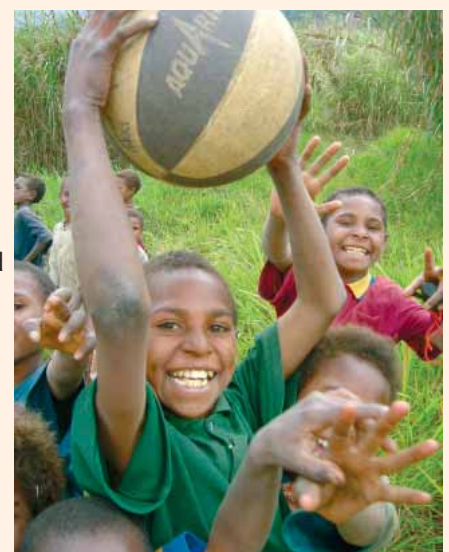
**Lisa:** I do trust that water for public consumption is good to drink. It should have been treated for bacteria and such before it would be allowed to be sold, so it shouldn't make anyone sick. I expect that when I drink water, it has been treated to make sure that the bacteria have been gotten rid of, and also that it has been tested to make sure the bacteria are gone and won't make anybody sick. The water should be a nice clear colour and not white/cloudy.

## PAPUA NEW GUINEA

Papua New Guinea (PNG) has high rainfall but less than 10% of the population has access to safe drinking water. How can this be the case? In the remote Fane area, people living near the Auga river in the village of Ala are some of the poorest in PNG. The river, which they have always used as their water source, is now seriously polluted because of waste from the Australian and South African jointly owned Tolukuma gold mine. Although the mine makes an enormous amount of money for its owners and shareholders, the people of Fane do not get any jobs, money, or other economic benefits from the mine – just a polluted river. In order to help these people get safe water, Oxfam New Zealand provided money and support to build household rainwater catchments for each family.

The only way to reach Fane is by small plane, and then Ala is still a difficult three hour walk away. So Oxfam needed to design tanks using materials light and small enough to fit in the plane and be carried all the way to the village on people's backs. The residents of Ala also move their village from time to time as they plant crops in different areas, so the water tanks needed to be easy to dismantle and shift to another location.

This problem was solved by the local people, who helped to design and build the rainwater catchments and tanks; and also provided all the wood for construction. The catchments now supply enough clean, safe water for all of the families' daily needs. This saves the women and children from the back-breaking daily job of fetching the dirty water from the river and carrying it uphill to the village. The greatest benefit, however, is that the people of Ala no longer risk their lives by drinking polluted river water.



Children in Papua New Guinea. © Kate Medlicott/Oxfam.

For more information on the Tolukuma gold mine and the impact it has on the PNG people and environment, visit: [www.oxfam.org.au/campaigns/mining/ombudsman/2004/cases/tolukuma/index.html](http://www.oxfam.org.au/campaigns/mining/ombudsman/2004/cases/tolukuma/index.html)

# Taking Positive Action *Te Mahi Pai*

## WHAT CAN I DO? *ME AHA AHAU?*

**SAVE WATER!** Here in Aotearoa New Zealand we use around 150 litres of water every day per person but most people in the developing world use less than 10 litres of water every day. Oxfam New Zealand suggests 10 ways you can save water:

1. Don't leave water running anywhere!
2. Don't leave the tap running while you brush your teeth, and use a cup of water to rinse with. Running the basin tap = 15 litres of water a minute.
3. Put a bottle filled with water in to your toilet cistern so that when you flush, not so much water is wasted.
4. Only flush when something needs to be flushed. Full toilet flush = 9 litres of water, half flush toilet = 4.5 litres of water.
5. Turn off the water in the shower when you're soaping yourself. Remember to keep your shower time short.
6. Have a shower more often than a bath, it uses less water. A shower = 20 litres of water per minute eg: 5 minutes = 100 litres of water.
7. When you're doing the dishes, rinse them with the plug in the sink. Running taps waste more water.
8. Don't run a tap waiting for cold water; Keep a bottle of water in the fridge. Running the kitchen tap = 15-20 litres of water a minute.
9. If you help with watering the garden, do it in the evening. This means the water won't be evaporated by the sun.
10. If you're washing the car, use a bucket instead of a hose. Do it on the grass so the extra water feeds the plants. Running a garden hose = 40 litres of water a minute.



**Remember, World Water Day is on March 22.** The theme in 2007 is Coping With Water Scarcity. See if you can come up with some ideas for coping with water scarcity to help celebrate this day. You could also take a close look at your local river, lake, or seashore. If it's not looking very healthy, you could get together with whānau and friends to start cleaning it up. One thing that waterways like is riparian zones. This is the space between the land and flowing water. If the riparian zone is covered in healthy plantlife, the waterway – and all the plants and fish within it – will be happier and healthier too.

Oxfam New Zealand is working to help communities in Africa, Asia and the Pacific who desperately need clean water now. Oxfam doesn't dig wells for people but supports local people to dig wells for themselves. Oxfam uses locally sourced materials and spare parts and draws on local skills and knowledge. This approach means that the communities can sustain the projects themselves after Oxfam's funding is completed. If you would like to find out more about Oxfam's work on water and other issues please go to this website: [www.oxfam.org.nz](http://www.oxfam.org.nz)

## WEBSITES *TE IPURANGI*

[www.oxfam.org.nz](http://www.oxfam.org.nz)

The Oxfam Water for Survival Programme supports work to provide clean water and sanitation and hygiene education programmes for people in some of the world's poorest regions.

[www.unicef.org/voy/explore/wes/explore\\_wes.php](http://www.unicef.org/voy/explore/wes/explore_wes.php)

UNICEF's Voices of Youth website explores issues relating to water; and includes interactive games, discussion boards for young people, real-life stories, factsheets and more.

[www.wateraid.org](http://www.wateraid.org)

Wateraid is an international charity dedicated to helping people escape poverty and disease caused by living without safe water and sanitation. The site includes a Learn Zone with teaching and learning resources for use in the classroom, home and elsewhere.

[www.niwasience.co.nz](http://www.niwasience.co.nz)

The National Centre for Water Resources (NCWR) provides

public information on river, lake, and groundwater conditions across New Zealand including water quantity and quality.

[www.wateryear2003.org](http://www.wateryear2003.org)

The International Year of Water website includes water myths, stories, and proverbs from around the world, facts and figures, a photo library, and information on taking action for sustainable water use.

[www.ywat.org/aboutus/index.html](http://www.ywat.org/aboutus/index.html)

The Young Water Action Team is a global network of young water professionals and students aged 18-30 whose mission is to increase the awareness, participation and commitment of young people to water-related issues.

<http://hdr.undp.org/hdr2006/>

For up to date statistics and information on issues relating to development and water worldwide, visit the 2006 UNDP report online.

**“Water is the source of all life.”**

*The Qur'an*



Change for a just world

Visit our website:  
[www.globaled.org.nz/schools/global.html](http://www.globaled.org.nz/schools/global.html)

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