Famine strikes Sub-Saharan Africa

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Firstly I would like to thank Martin Pluss, Milton Brown, Kate Donnelly, Mark Eldridge and Susan Caldis for contributing articles in the final edition of the Geography Bulletin for 2011. In this edition a diversity of topics were covered including: an update on the Geography National Curriculum; active citizenship projects (Shades4Aids, Surfaid International); use of information and communications technology (Augmented Reality, Contour Education); school projects (Birth ing Kit Assembly Day at North Sydney Girls’ High School), classroom activities (Natural Hazards Using You Tube at Chatswood High School); contemporary geographical issues (Famine in the Horn of Africa, The Critical Decade: Climate Change Report); globalisation and citizenship (Bitter Sweet Chocolate: From Ground to Mouth, Tobacco: Fatal Global Epidemic); resources (ABS website, book reviews, new resources from World Vision, Oxfam and Global Education); and the importance of Geography for a future career.

Future editions of the Geography Bulletin will no longer be sent to members as a hard copy but will be presented electronically. Instead of increasing membership fees the Geography Council decided that electronic Geography Bulletins will not only be cost saving but also environmentally sustainable.

Secondly I would like to thank the Council for a cohesive hard working and successful year under the leadership of Nick Hutchinson. Also thanks to Dr. Grant Kleeman for not only being the Treasurer and ensuring the organisation made a profit in 2011 but also organising and presenting at the four mini conferences around NSW.

2011 COUNTRY MINI CONFERENCES

Susan Caldis, Senior Curriculum Officer, ACARA, provided an update on the Australian Geography Curriculum, at the four mini conferences held at Newcastle, Canberra, Orange and Coffs Harbour. Rod Lane, David Hamper, Lorraine Chaffer, Nick Hutchinson, Grant Kleeman and Susan Bliss spoke on a variety of topics including: an innovative look at Geography skills; urban dynamics; working with students’ ideas to build geographical understanding; Australia in its regional context with a focus on China; and promoting student engagement and conceptual understanding using contemporary issues, geographical skills and visual literacy.

All conferences received excellent evaluations. Teachers’ comments included: Fantastic; This was an excellent conference, thank you; Excellent worthwhile mini-conference; Had a great time and well organised; Great resources for Geography; Well planned, timed and excellent content selection; Presenters informative, approachable and constructive toward professional development – excellent; One of the best conferences I have been to – the content given was more valuable than the food; Lots of excellent up to date information and ideas to take back to the classroom.
The 2011 GTA annual conference focused on the topic of People and Hazards by exploring the changing nature and characteristics of population, as well as the nature, characteristics and impacts of natural hazards. It was held on 26 August at NSW Parliament House.

The topics presented at the conference related to Stage 4, 5 and 6 in the Geography curriculum. The morning session included speakers who addressed topics such as the causes of natural hazards and the role of technology in weather prediction as well as the government response to natural disasters. The afternoon session included speakers providing practical approaches in the use of ICT technology in both population and natural hazards.

An update on current ACARA developments concluded the conference.

Speakers included: spokesperson from Emergency Management Australia; Dick Whitaker from the Weather Channel; Mick Law from Contour Education; Pat Beeson from the Australian Bureau of Statistics; and Mark Eldridge coordinator of Shades4Aids.

The successful conference was organised by Sharon McLean with the support of Sarah Menassa-Rose, Grace Larobina, Robert Gandiaga, Paul Alger and Carmel Logalbo.

The presentations are available on the GTA website – www.gtansw.org.au/resources.php
Update from ACARA about the Australian Curriculum: Geography

Susan Caldis, Senior Project Officer, Geography
October 2011

The draft Foundation to Year 12 Australian Curriculum: Geography was released for public consultation on 20 October and is published on the Australian Curriculum consultation website at www.australiancurriculum.edu.au/consultation. National consultation will continue through to 29 February 2012.

As with the phase one learning areas of English, Mathematics, Science and History, the Geography section of the consultation website is designed to enable users to register and provide feedback on the draft Australian Curriculum: Geography through an online survey. Alternatively, a written submission can also be provided to ACARA, (ACARA, Level 10, 255 Pitt Street, Sydney, NSW 2000).

39 schools across Australia are currently engaged in testing out and trialling sections of the draft Foundation to Year 12 Australian Curriculum: Geography. Schools are able to decide the amount of time that they will dedicate to engaging with the draft curriculum, they can also decide the year levels and which units or sections of units that they will test out.

Feedback from these schools, along with responses from the national consultation, will be synthesised and used to inform the revisions to the final Australian Curriculum: Geography. It is anticipated that final digital publication will occur during the last quarter of 2012.

The draft Foundation to Year 12 Australian Curriculum: Geography;

(a) has seven underpinning key concepts; place, space, environment, interconnection, sustainability, scale and change

(b) is structured around two interrelated strands;
   - Geographical knowledge and understanding (written in yearly bands)
   - Geographical inquiry and skills (written in two year bands after Foundation Year).

(c) encourages a teaching and learning focus upon fieldwork, the use of spatial technologies and on developing a deep understanding about sustainability

(d) focuses on aspects of both physical geography and human geography

(e) enables teachers to choose specific case studies that they believe most appropriately exemplifies the geographical knowledge and understanding

(f) uses the key concepts of place, space and environment as organisers of learning for the geographical knowledge and understanding strand across Years F-6

(g) has two core units for each year level across Years 7-10 (Unit 1 and Unit 2). The intention of each unit is to provide a combined picture about the aspects of physical and human geography which is related to the area of study in that unit, however, each Unit 1 has a predominantly physical geography focus whereas each Unit 2 has a predominantly human geography focus

(h) integrates learning from the cross curriculum priorities; Aboriginal and Torres Strait Islander histories and cultures, Asia and Australia’s engagement with Asia, and, Sustainability

(i) embeds the development of skills related to the general capabilities; literacy, numeracy, competence in information and communication technology, critical and creative thinking, personal and social competence, intercultural understanding

Consistent with the design of the Australian Curriculum, the curriculum language of content descriptions, content elaborations and achievement standards has been maintained across Foundation to Year 10. In the senior secondary years (Year 11-Year 12), the language used are learning outcomes and content descriptions.

The content descriptions state the expected learning that will occur across Foundation to Year 12. The content elaborations provide an illustration or further example of what could be taught as part of the content description. Content elaborations are not part of the senior secondary curriculum.

The achievement standards provide a basis for teacher assessment and give an indication of the quality of geographical learning expected of students as they progress through school. The achievement standards have been developed around the key underpinning concepts, the geographical inquiry process and progression of competence with geographical tools and skills.

Individuals, faculties, schools, collegiate and organisations are all encouraged to provide feedback to ACARA about the draft Foundation to Year 12 Australian Curriculum: Geography through the online survey and/or a written submission.

If you require further information regarding the draft Australian Curriculum or ACARA’s consultation processes, please contact:
Ms Susan Caldis, Senior Project Officer, Geography on 02 8098 3150 or susan.caldis@acara.edu.au
What is a famine?

‘Famine’ is a powerful emotive word and aid organisations do not use it lightly to describe a humanitarian crisis.

Most major aid agencies describe a crisis as a famine when the situation on the ground reaches level five on the Integrated Phase Classification (IPC) system. This means:

- at least 20% of the population has access to fewer than 2,100 kilocalories of food a day;
- acute malnutrition in more than 30% of children;
- two deaths per 10,000 people, or four child deaths per 10,000 children every day.

Ian Bray, from Oxfam, says ‘Using the f-word gives a very strong message to donors and politicians. It brings in publicity and puts it on the news agenda – without it, the public doesn’t know it is happening’.

Famine strikes Sub-Saharan African countries the hardest as droughts, depletion of food resources, excessive withdrawal of groundwater, wars and poverty results in increased mortality rates – especially amongst young children.

Travelling the road to death

The crises in the Horn of Africa, is the most severe food security emergency in the world today. The region, facing one of the driest years since 1950/51, is experiencing famine resulting in the deaths of tens of thousands of people. Many desperate survivors have been forced to walk for weeks in search of food and water. The UN High Commissioner for Refugees (UNHCR) spokeswoman Melissa Fleming said many people have died en route. There are horrific stories of young children dying of starvation and exhaustion on their journey to reach safety. Tragically, many children arriving in the refugee camp are severely malnourished and despite receiving immediate emergency care and therapeutic feeding, they die within 24 hours.

Josette Sheeran, head of the UN’s World Food Programme, said ‘we saw children arriving so weak that many were in stage four malnutrition with less than a 40% chance of living’. ‘We also heard from women who were forced to leave their babies along the road and others who had the horrifying choice of saving the stronger child in preference to the weaker’.

Photograph: Halima Mohamed lives in an internally displaced persons (IDP) camp in Mogadishu with her family

There are 1.5 million people displaced within Somalia, while a further 650,000 people are refugees in neighbouring countries (July 2011).

Phil Moore/Concern Worldwide.
'Child Dies Every Six Minutes During Somalia’s Famine

Refugee crisis

As of 3 August 2011, more than 860,000 refugees from Somalia had fled to neighbouring countries, in particular Kenya and Ethiopia, where crowded, unsanitary conditions together with severe malnutrition led to a large number of deaths. Other countries in and around the Horn of Africa, including Djibouti, Sudan, South Sudan and parts of Uganda, are also affected by a food crisis.

The UNHCR base in Dadaab, Kenya has the capacity to care for a maximum of 90,000 people in its three refugee camps but currently hosts 440,000 people. At the same time more than 1,500 refugees continue to arrive every day from southern Somalia. About 80% are women and children.

Within the camps, infant mortality has risen threefold in the last few months. The overall mortality rate is 7.4 per 10,000 per day, which is more than seven times the ‘emergency’ rate of one per 10,000 per day. There has also been a four fold increase in sexual violence against women and girls. Incidents of sexual violence primarily occur while travelling to refugee camps. Rapes have been reported in the camps placing these women at risk of contracting HIV/AIDS.

Dollo Ado area in Ethiopia hosts 112,000 refugees from Somalia. Approximately 1,700 refugees arrive each week. The three camps at Bokolomanyo, Melkadida, and Kobe at the Somali-Ethiopic border have exceeded their maximum capacity. Water shortage is affecting all refugee camps and malnutrition rates among children under five years reached 33%.

Table: Figures August 2011

<table>
<thead>
<tr>
<th>Deaths</th>
<th>At least 29,000 in Somalia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death rate</td>
<td>7.4 per 10,000 per day; 13 per 10,000 per day for children under 5 years</td>
</tr>
<tr>
<td>Cause</td>
<td>Severe drought, lack of humanitarian aid, insurgency</td>
</tr>
<tr>
<td>Impact on demographics</td>
<td>More than 12.4 million affected, including 3.7 million in Somalia, 3.6 million in Kenya and 4.6 million in Ethiopia</td>
</tr>
</tbody>
</table>

Map: Horn of Africa drought: interactive map (July 2011)

Note differences in statistics: 12.4 million August 2011

Source: www.guardian.co.uk/global-development/interactive/2011/jul/04/somalia-hornofafrica-drought-map-interactive

Weather a contributing factor

Weather conditions over the Pacific, including an unusually strong La Niña, interrupted seasonal rains for two consecutive seasons. In 2011 rain failed to fall in Kenya and Ethiopia and for the last two years in Somalia. Low precipitation hit communities already affected by poverty, conflict, and skyrocketing food and fuel prices. Pastoralists, whose herds were devastated by drought, were forced to sell their few assets in order to buy food.

The failure of rains has caused the immediate crisis in Somalia but the country has other ailments contributing to the disaster, such as: rapid population growth with many girls leaving school resulting in younger marriages and increased births; insufficient farming investment due to the insecurity of two decades of war; increased desertification in the south caused by the clearing of forests to burn charcoal; and the absence of governance. Obviously this area has been living on the edge of disaster for some time!

Map: Precipitation below normal levels

Source: www.economist.com/blogs/dailychart/2011/07/disaster-east-africa

Is aid sustainable?

The United Nations has urged ‘massive’ action to save millions of people in the drought stricken Horn of Africa who have abandoned their homes and livelihoods as a last resort. A crisis is a crisis – but there’s more to tackling famine than emergency aid.

Today’s situation is so dire that in many cases emergency food aid is the only realistic option. But, while it undoubtedly saves lives, it doesn’t help build resilience, and can destabilise local markets and lock families into dependency. Lifesaving support needs to begin months and years before crisis arrives, by supporting people during the good times so when the bad times strike they have the reserves to carry themselves through.

Today, support with longer-term benefits to help people recover and improve their livelihoods – helping people grow crops and raise livestock, and improve long-term access to water – will be rolled...
out alongside emergency food aid. But much of that can only be funded thanks to money raised on the back of this acute crisis. We in the aid sector must do better at making the case for investment at the times when there are no distressing images to show, or harrowing stories to relate.

‘Emergency food aid appeals save lives, but they don’t solve the root problem. That requires a different, less sensational engagement with the media, with government and with the public – and it needs to be achieved before any of us are able to offer real solutions to extreme hunger in Africa.’

(Source: www.guardian.co.uk/commentisfree/2011/jul/06/famine-emergency-aid-east-africa)

<table>
<thead>
<tr>
<th>Country</th>
<th>Requirements (million US$)</th>
<th>Committed (million US$)</th>
<th>% of Commitment Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>741</td>
<td>382</td>
<td>52%</td>
</tr>
<tr>
<td>Djibouti</td>
<td>33</td>
<td>17</td>
<td>52%</td>
</tr>
<tr>
<td>Somalia</td>
<td>1063</td>
<td>500</td>
<td>47%</td>
</tr>
<tr>
<td>Ethiopia (non-refugees)</td>
<td>398</td>
<td>154</td>
<td>39%</td>
</tr>
<tr>
<td>Ethiopia (refugees)</td>
<td>246</td>
<td>23</td>
<td>9%</td>
</tr>
<tr>
<td>Miscellaneous funding</td>
<td>119</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2481</strong></td>
<td><strong>1195</strong></td>
<td><strong>48%</strong></td>
</tr>
</tbody>
</table>

(Source: UN Office for the Coordination of Humanitarian Affairs (OCHA))

Only about half of what is needed to save African lives has been donated by rich countries, leaving a massive funding gap of $1 billion.

Support after media spotlight fades: UNHCR Australia

Australia for UNHCR is the fundraising arm of the UN Refugee Agency (UNHCR) in Australia. It is a non-government organisation aimed to help Australians change the lives of refugees and displaced people around the world. UNHCR provides emergency relief such as shelter, food, water and medical care and vital practical emergency support such as blankets, jerry cans and cooking sets. These basic items can mean the difference between life and death for refugees.

After the crises, UNHCR provides ongoing support to refugees by providing infrastructure, schools and income generating projects. The Safe Mother and Baby programs in Myanmar, Chad and Somalia, and the construction of the first secondary school in Nakivale refugee settlement in Uganda are a few examples.
b) Active Global Citizenship: UNHCR

- Every refugee has a unique story of courage and determination. United Nations Refugee Agency (UNHCR) hopes that, through these videos, their voices can be heard in homes and their needs better understood. Refer to the video gallery and summarise the work of UNHCR – www.unrefugees.org.au/our-stories/photo-gallery
- Refugees are among the world’s most vulnerable people, and each of the Millennium Development Goals (MDG) relates to the difficulties faced by refugees on a daily basis. Discuss how UNHCR aims to fulfil every aspect of the MDGs through its humanitarian programs and emergency relief work worldwide – www.unrefugees.org.au/what-we-do/millennium-development-goals
- Refer to stories in the field – www.unrefugees.org.au/our-stories/stories-from-the-field/paul-spiegel,-unhcr-ethiopia. Imagine you were a refugee. Compare your life with a refugee

Yet while those angry mobs raged in London, another riot was taking place on the outskirts of Mogadishu in Somalia. On 5 August, 30,000 people were waiting, when the World Food Programme flew 300 tonnes of food into a refugee camp at Badbaado. In the melee that followed, seven people died. This was because, 65 children under the age of five had died in Somalia since the London riots began – simply because their parents didn’t have enough food to keep them alive!

Tim Costello from World Vision journeyed from Cape Horn to the border of Somalia where 12.4 million people are teetering on the brink of what he called an ‘apocalypse’. Unfortunately the famine did not receive the same air time as other issues around the world such as the UK phone hacking scandal and the US debt ceiling. Tim said ethnocentrism played a part in the way the West thought about the ongoing crisis in Africa. There is this perception that they are used to this suffering. In reality this is untrue – “when they lose their children they feel the exact same anguish anyone else would.”

Order won’t be restored, because the fix for the worst famine to hit Africa in 60 years simply cannot be implemented in a few days, months or maybe even years...


PERSPECTIVES: LONDON RIOTS AND AFRICAN FAMINE

Difference between developed and developing world problems

Photographs: The world was outraged when this boy lost his portable PlayStation in the London riots. What about the hungry Somali child?

The fatal shooting of 29 year old Mark Duggan by police officers on 4 August 2011 sparked an outbreak of riots in London. The ensuing arson, burglary, death and disorder spread to other parts of England, mostly centred in major cities.

In London, what started as a protest turned into an opportunity for angry chavs with rich world issues to pillage stores for plasma screen TVs. “I’m getting’ me taxes back,” one looter told Sky News. This was a far cry from the spark of alleged injustice that ignited the riots eight days beforehand. The TV footage from London was referred to as an apocalypse, with violent gangs charging down streets choked by rubble resembling scenes from an end-of-the-world Hollywood blockbuster.
Every hour:
- 30 children die as a result of HIV/AIDS.

Every day:
- 1,000 children are newly infected with HIV;
- of these HIV children over 50% die very young because they are either undiagnosed or do not have access to treatment.

Every year:
- millions become orphans – 16 million children under 18 years have lost one or both parents to AIDS;
- millions suffer discrimination and prejudice.

Those not infected may live in families and communities where HIV/AIDS reduces incomes and increases poverty.

Mother-to-child transmission (MTCT)

‘This epidemic unfortunately remains an epidemic of women.’ Michel Sidibé, Executive Director of UNAIDS.

More than 50% who suffer HIV/AIDS are women. Women’s childbearing role means they also contend with mother-to-child transmission of HIV.

Did you know?
- 2.1 million children live with HIV and AIDS.
- 90% are infected through their mother either during:
  - pregnancy
  - labour and delivery
  - breastfeeding.
- without treatment the transmission rate is 40% during pregnancy, birth or breastfeeding.
- with treatment the transmission rate is below 1%.

Is this equitable and fair?
- in developing countries only 9% of women receive treatment to prevent transmission of HIV to their child.
- in developed countries extensive preventive measures ensure transmission of HIV from mother-to-child is rare. If it does occur a range of treatment options is available. This means a HIV+ child often survives into adulthood.

These facts contradict the basic principles of equity and human rights – referred to as ‘global medical apartheid’.

Prevention is possible!

Preventing HIV infection, providing life prolonging treatment and relieving the impact of HIV and AIDS for children and their families and communities is possible. However there is a lack of:
- investment and resources for testing;
- antiretroviral drugs;
- prevention programmes;
- trained staff.

This means children continue to suffer the consequences of the epidemic.
Good news

The good news is MTCT can be reduced if:

- women’s human rights are promoted and protected;
- women receive an education on HIV prevention;
- there is effective and widespread voluntary testing and counselling;
- antiretroviral drugs are given to:
  - mother before birth and during labour
  - baby following birth.
- safer delivery is practiced;
- safer infant feeding is implemented.

Bad news

The bad news is:

- only 50% of HIV-infected pregnant women in low- and middle-income countries received drugs to protect their babies from infection;
- less than 10% of children received treatment.

What is the cost to prevent HIV mother-to-child transmission?

Most of the cost is in the baby formula. It could be as low as $4.50!!!

What could you buy with $250? Instead you could save a life!

Hope for Cambodian Children Foundation (HfCCF): Australian NGO

Hope for Cambodian Children Foundation (HfCCF) was established in 2004 as the overseas initiative of the AIDS Trust of Australia. HfCC, a non-government organisation, cares for children orphaned by the HIV/AIDS pandemic as no orphanage in Cambodia accepts a HIV positive child. Instead most HIV children are discarded into the streets by hospitals and left to die.

Photograph: Battambang Orphanage Centre

In response the HfCCF built an orphanage in Battambang Province, Cambodia which:

- cares for 130 children abandoned by their families and community because they have or are suspected of having HIV/AIDS;
- provides each child with a loving, caring, safe home environment and ‘hope for the future’.

Today the centre has a small medical and dental facility and offers free education to an additional 150 children from the wider community in and around Battambang. The children range in age from 3 months to 22 years old with three older children enrolled at University, six at Teachers College and eight at Trade School.

HfCCF is affiliated with the University of Sydney’s Faculty of Business and Economics. It received an AusAID annual grant of $240,000, enabling the Foundation to offer 35 scholarships each year for the development of women’s entrepreneurial projects in small to medium business in the ASEAN region.

Since its inception, HfCCF has been committed to addressing global health issues outside the centre. Through developing relationships with the Cambodian Ministry of Health and the Director of the Provincial Health Department, HfCCF has actively engaged in the implementation of Stage 3 of the Cambodian National HIV Strategy, referred to as Provincial Outreach or Shades4Aids.

Photographs: School, Battambang Orphanage Centre

Source: www.hopeforcambodianchildren.org
What is Dina’s story?

In 2006 Dina’s mother died from HIV/AIDS in Battambang Hospital. At the age of five and with no one to care for him, Dina wandered the hospital halls begging and stealing. After nearly a month, a concerned hospital worker paid a motorcycle driver one dollar to drive him to HFCC. Dina was frightened and extremely upset. This traumatic experience hindered his social development. However, after one year in the centre and with fulltime care from housemothers, Dina is healthy and happy. He has just begun studying at school. Dina is a very energetic and cheeky child. He wants to be a police officer in the future.

Why Cambodia?

The Kingdom of Cambodia is located in the southern portion of the Indochina Peninsula in Southeast Asia. The population consists of nearly 15 million people, Phnom Penh is the capital city and Battambang the second largest city.

Cambodia is amongst the poorest countries in the world with a GDP per capita of $1,024 and Human Development Index of 0.494 (124th lowest globally). Poverty is unfortunately rife due to years of terrorism and civil war on the part of the Khmer Rouge regime and corruption within the government.

While Cambodia is on the path to economic development, poverty is still widespread with 40% of the population living under the poverty line. About 90% of the poor live in rural areas. (Refer to poverty photographs – http://blogs.sacbee.com/photos/2010/02/poverty-in-cambodia.html).

Sitting on the Sangker River just south west of the Tonle Sap Lake, Battambang town is at the heart of Cambodia’s ‘rice bowl’

The prevalence of HIV/AIDS in Cambodia is among the highest in Asia. Despite progress:

- 30,000 children live in families affected by HIV;
- each year 500 children are born with HIV or contract HIV within 6 months. With treatment this could be reduced to 10;
- 25% of HIV children die before they reach 5 years;
- most new infections affect married women and their children.

Prime Minister Hun Sen said AIDS has done more damage to the country than decades of war. Many fear the worse is yet to come. A report suggests the projections made 10 years ago concerning the spread of HIV were far too low due to falsified numbers and corruption.

Graph: Projected number of people living with HIV in Cambodia 15–49 years (note more women than men)
SHADES4AIDS?

For the privilege of wearing sunglasses to school for a day, students donate a gold coin to the Hope for Cambodian Children Centre. At school, students learn about the problems facing children in communities affected by the AIDS pandemic, with a focus on Cambodia.

Shades4Aids receives no government funding or corporate sponsorship. It is entirely funded by Australian school children through educational and fundraising initiatives in conjunction with the Departments of Education in states throughout Australia.

In 2008 Shades4Aids was launched at James Ruse Agricultural High School. By 2009, 400 schools had participated in the program. In 2010 the money raised by Australian school students enabled the development of a pilot program to identify 27 HIV+ pregnant women. These women were provided with antiretroviral medication, sterile birthing facilities and blood tests. Also medication was given to their newborn infants. The result saw 27 infants BORN HIV FREE.

Photograph: James Ruse Agricultural High School participating students

FUNDRAISER BRINGS SHADES OF HOPE

Sunglasses are not normally part of the school uniform, but on May 7 students are being asked to don their favourite pair as part of the Shades 4 AIDS fundraising day.

The then NSW education minister Verity Firth launched the event last year at James Ruse Agricultural High School to raise awareness of AIDS. More than 1,500 babies around the world are born daily with HIV.

Shades4AIDS specifically supports Hope for Cambodian Children, an Australian charity aimed at preventing the transmission of HIV from mothers to babies in rural areas of the south-east Asian country. The charity also runs an orphanage in Battambang, Cambodia’s second largest city, for children who are HIV positive and have been abandoned or whose lives have been affected by AIDS.

Shades4AIDS spokeswoman Joy Smithers said it was possible to prevent HIV transmission to an unborn baby for as little as $4.50. “Most people don’t realise this is even possible, let alone for such a small cost,” Ms Smithers said.

Ms Smithers said schools could access lesson plans and online teacher resources including videos on the plight of children with the virus, HIV facts, issues around discrimination as well as fundraising ideas and posters.

“We hope that schools will register on our website and that their SRC will put it on the school calendar or choose another suitable day. On that day they will wear their sunglasses and give a gold coin and we hope that some kind of HIV discrimination awareness is imparted in the classroom through our lesson plans,” she said.

James Ruse Agricultural High School principal Larissa Treskin said her Year 9 students were planning to collaborate with their partner CSIRO, to develop an agriculture plan for hardy crops that could easily be grown in the Cambodian orphanage.

A global citizenship program running at the school called Higher Resolves could link its community service component to the project, by having agricultural students spend time in Cambodia to oversee the crop-planting project.

“The students were very positive in terms of wanting to support – they thought it was a really good cause when so little money was needed to have such a big impact,” Ms Treskin said. “We’ll continue to support Shades4AIDS and make it practical as well. It’s only the first stage – we’re thinking longer term.

Photograph: Students being asked for a gold coin donation to wear their sunglasses at school on Shades4AIDS day.


James Ruse Agricultural High School

James Ruse Agricultural High School not only participates in Shades4Aids day but in 2011, ten students and three teachers, including Deputy Principal Megan Connors, visited the Centre in Battambang for five days. The HICCF was thrilled the students visited and assisted in a range of projects – agriculture, educational and community.
ACTIVE CITIZENSHIP

SHADES4AIDS

Youtube

James Ruse HiCC promotional video clip.mp4 – www.youtube.com/watch?v=O9HDhiX3y3c, 1.47min

Photographs: Wiley Park Girls' High School

The students of Wiley Park Girls’ High School became part of Shades4Aids Day on Friday 7 May.

Shades4Aids can be run on any day of the year that suits the busy school fundraising calendar.

Source: www.wileyparkg-h.schools.nsw.edu.au/sws/view/1475821.node

Poster: Shades4Aids

Fundraising ideas!

Apart from raising donations on Shades4AIDS Day, the school, staff and students can have other fundraising events. Below are some ideas:

Students –
- sausage sizzle.
- doorknocking your neighbourhood.
- car wash.
- raise money for a cause by cycling, running or other marathon event.

Parents –
- have a Shades4AIDS day at work.
- take a donation box to work and once a month have a gold coin day.
- host a lunch or dinner at home, ask your friends to donate.
- put a donation box in a local shop, café or pizza place.
- sponsor a child.
- sponsor a project.

Millennium Development Goal 6: Combat HIV/AIDS

Shades4Aids is closely aligned with Millennium Development Goals 4, 5 & 6, to reduce infant mortality, improve maternal health, halt and reverse the spread of HIV AIDS, malaria, tuberculosis and other diseases. In 2012 Shades4Aids will have an academic partnership with Sydney University Faculty of Medicine (along with other government and non government organisations) to expand the 2011 pilot program throughout 162 villages in the Battambang Province of rural Cambodia. They also aim to establish mobile maternal health clinics, predominantly staffed by volunteer medical students from Australian tertiary institutions.
Target 6a: Halt and begin to reverse spread of HIV/AIDS

Progress 2011:
- spread of HIV stabilised in most regions;
- more people surviving longer.

Target 6b: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it

Situation 2011:
- rate of new HIV infections outstrips expansion of treatment;
- expanded treatment for HIV+ women aims to safeguard their newborns (aim of Shades4Aids).

Shades4Aids plays an important role in teaching children and our society, about HIV and AIDS. Because of wide spread ignorance, AIDS related issues such as discrimination is still rife. Through events such as Shades4Aids, HICCF aims to change this.

GET YOUR SCHOOL INVOLVED:
WEAR SUNGLASSES FOR A DAY

If each school pledged to raise money to save the life of one child a year, Australian schools could eradicate HIV/AIDS in children in Cambodia.

Curriculum:
- Geography: 4G3 (health/poverty); 5A4 (aid/NGO, Human Rights); Years 7–10 Citizenship, Gender.
- National Curriculum: Asia and Australia’s engagement with Asia – focus Cambodia.

Teaching resources:
- Videos, quizzes and information packs available from website – www.shades4aids.org/schools/schools_hiv.html
- School HIV pack covers: Issues on discrimination, poverty and health of children with HIV; Children’s personal stories; Facts and myths such as: Is it safe to share a toothbrush with a HIV+ child?
- Primary and secondary teaching books ‘Make a World of Difference’ will be available in 2012. Content covers current Syllabuses and National Curriculum (Year 10 Geography – Human Wellbeing as well as literacy, numeracy, ICT, ethical behaviour, thinking skills, citizenship and intercultural understanding).

Guest speakers to schools: a representative is available for public speaking opportunities in schools, tertiary facilities, teachers’ conferences and community settings.

Contact: Mark Eldridge Shades4Aids Coordinator.
Hope for Cambodian Children Foundation.
PO Box 889 Surry Hills NSW 2010,
Mobile +61 414 866 662
Email: info@hopefor cambodianchildren.org and info@shades4aids.org
www.hopefor cambodianchildren.org and www.shades4aids.org
Active citizenship

BIRTHING KIT DAY AT NORTH SYDNEY GIRLS’ HIGH SCHOOL

North Sydney Girls work for safe childbirth worldwide

UN statistics show that every minute of every day, a child dies due to complications of childbirth. 529,000 women die in childbirth each year. For every one woman who dies, 30 suffer injury, disability and disease.

In many parts of the world, women cannot access or afford proper healthcare in childbirth – if it exists in the first place. In Australia, women die in childbirth at a rate of one in every 48,000 births. In poorer countries like Afghanistan and Niger, the maternal death rate is one in seven.

Students from North Sydney Girls High School recently volunteered their time, money and effort to try to make a difference to this grim picture. Putting what they have learnt about Global Citizenship into practice, the whole of Year 10 partnered with the humanitarian group Zonta International to purchase and package 3000 birthing kits for women in the Sudan. Before assembling the kits, the students heard a presentation on the unmet need of mothers in the developing world from Dr Susan Bliss, former NSW Director of Global Education.

The incursion was coordinated by Ms Irene Summers, of the social science staff, who invited Zonta International to the school after hearing Dr Bliss’s presentation at a conference. Ms Summers said that the incursion fit perfectly with the Year 10 geography curriculum, giving the students a personal connection with the issues of Active Citizenship, Global Inequality and Gender Disadvantage that they had studied in the classroom. It is hoped that the incursion will become a regular fixture in the school’s calendar.

Each birthing kit put together by the students contained clean gauze and thread, soap, plastic gloves and sheeting and sterile scalpel blades. This cheap and simple equipment, which most Australians would take for granted, provides many women in the developed world with their only opportunity for a sterile childbirth.

The kits don’t cost much to put together – less than a cup of coffee – but their real value is measured in lives saved. Research following up 2350 kits delivered by Zonta International found that only one woman who used the kit died in childbirth.

The experience of directly helping to improve the lives of women in less fortunate countries had a profound effect on the students.

One student, Rebecca Tay, described making the birthing kits as “heaps of fun”, but also noted the seriousness of their mission. “The presentation we heard before this was quite shocking – to see how many women were suffering from infections from birth and complications which led to death or their families being affected even further as a result.”

It’s nice to know that we’re helping people”, she said, “but it’s also kind of sad to think that more could be helped so easily.”

Many students said they were inspired by the experience of volunteering. Jananee Myooran said, “As a personal thing, I love helping other people, and I’ve always seen myself doing aid work in my future... It’s been eye-opening in a way to see how different our societies are to theirs... More developed countries have a duty to help [less developed countries].”

Ed McMahon
English Teacher, NSGHS

Above: North Sydney Girls’ High School, Year 10 students, (From left to right) Jasmine Fyfe, Lois Zhang, Rebecca Jiang, Sharni Nichols and Margery Ai.

Above: Completed birthing kit packages, ready to be couriered to the Sudan.

Below: Ms Irene Summers, Social Sciences teacher (R) presents Judith White, OAM, of the Zonta Club of the Northern Beaches, with a donation of funds raised by the school and students.
One year ago parts of the Mentawai islands were hit by an earthquake and a destructive tsunami claiming more than 500 lives and displacing over 15000 people.

As SurfAid was the first international organisation to react to the disaster, it played a lead role in rapid assessment and delivery of assistance to the affected communities of North and South Pagai. Within 24 hours of the tsunami, SurfAid had their first boat on route from Padang with shelter kits and food.

Between 27 October and 7 November SurfAid field staff conducted formal assessments of 27 communities and 160 people. This information, shared with other NGOs and government agencies, provided the basis for planning. While conducting assessments, aid in the form of food and non-food items was distributed. Two weeks immediately following the tsunami, SurfAid was the only NGO to operate in the Mentawai Islands despite the arrival of the worst storms in the past 10 years.

Following the first phase of operations dealing with immediate relief needs, SurfAid developed a forward strategy that was enacted in two phases.

Table 1 – Mentawai Tsunami Emergency Response and Recovery plan

| Phase I: (26 October – 21 November 2010) | Emergency Immediate Response, Rapid Assessment, Distribution and Planning |
| Phase II: (22 November 2010 – 20 February 2011) | Emergency Recovery |
| Phase III: (21 February – 20 November 2011) | Emergency Recovery |

Note: For information on the cause of the disaster and Phase One see Geography Bulletin: Volume 42, No 4 2010, pp 29 – 32.

Table 2: SurfAid’s Phase II activities

<table>
<thead>
<tr>
<th>Project name</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Disaster Disease Prevention (P4B)</td>
<td>Provided immediate health assistance in communities most badly affected by the tsunami</td>
</tr>
<tr>
<td>Psychosocial Support (PSS)</td>
<td>Identified and strengthened coping strategies and resilience of communities affected by the tsunami as well as optimised preparedness.</td>
</tr>
<tr>
<td>Temporary Shelter (T-Shelter)</td>
<td>Engaged target communities in the planning, designing and construction of high quality temporary shelter.</td>
</tr>
</tbody>
</table>

Table 3: SurfAid’s Phase III activities and sustainability themes.

<table>
<thead>
<tr>
<th>Program</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P4B (Post Disaster Disease Prevention)</td>
<td>Ensures partner communities have access to Posyandu (locally run health post), the process by which primary health care is delivered at community level. SurfAid supports and strengthens local health service providers in their capacity to deliver appropriate health messages.</td>
</tr>
<tr>
<td>PSS (Psychosocial Support)</td>
<td>Leaves community members with the tools and knowledge to be able to address their own long term recovery from post traumatic stress disorders.</td>
</tr>
<tr>
<td>T-Shelter</td>
<td>Trains community members on how to maintain their house and rain water harvesting system, as well as build a community support network</td>
</tr>
<tr>
<td>Clean Water</td>
<td>Selects and trains local community members to ensure facilities are appropriately maintained.</td>
</tr>
</tbody>
</table>
**Hygiene Promotion**
Builds capacity in community groups to ensure they are able to manage their own hygiene and sanitation, and to leave communities with latrines that significantly reduce the threat of diarrhoea and other water-borne diseases.

**E-Prep**
Builds capacity in community level groups to enable them to design, manage and execute disaster risk reduction plans.

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**Long term recovery and sustainability – Phase III**

News about disasters has the habit of dropping out of public view very quickly. The timing from being on the front page to being forgotten can vary from a few days to weeks depending on the severity of the disaster. However this is not the case for people who are affected and the organisations helping with the recovery. Dealing with the impacts becomes the ‘new normal’ and as everyone adjusts to the new reality the long-term vision becomes important.

There will be other natural disasters in these islands, so it is essential all activities undertaken by every NGO and government department recognise this fact. This is why training communities and providing them with the knowledge, tools and confidence to be self sufficient is a vital component of SurfAid’s Emergency Recovery Program.

**Case study: T-shelter**

In the immediate aftermath of the tsunami, survivors construct a shelter. In the midst of dealing with the loss of lives, missing people, destruction of food supplies, poor communications and the worst storms in ten years, shelter was the top priority. In the village of Masakout only one house was left standing out of 100.

**Photo 1: Masokut destruction**

In Masokut 61 of 62 homes were destroyed by the tsunami.

Photo: SurfAid

Emergency dwellings using recycled materials provided immediate shelter then, as aid arrives, tents and tarpaulins fill a vital short term gap.

**Photo 2: Emergency shelter**

Living conditions in a relocation/displaced persons camp, Tumalei. Near Bat Caves. Photo. Rick Hallett/SurfAid

Ultimately, shelter plays a key role in the recovery process. The trauma, stress and disillusionment of having lost friends, family and possessions in the aftermath of disaster highlights the importance and responsibility of an outside agency like SurfAid to facilitate and engage people in the rebuilding process. The community members themselves are the best judge of their own interests. When the community generates the direction and vision for rebuilding this in turn generates confidence and action within the community and ensures greater relevance and resiliency.

**Sample questions to be considered:**

Where will you rebuild? Will it be the same location or a new one?

Does a new location exist?

Will it suit the lifestyle of the people if they move to higher ground given they had been fishing and had low lying food gardens and coconut groves?

What materials are available?

Where can they obtain new materials?

Who will do the building?

Is there sufficient water?

**Activity:**

You are an assessor from SurfAid and you have been sent to a village to ask them what help they need to rebuild their houses. Create a list of items you think the village would urgently need in order to rebuild.

**SurfAid’s T-Shelter construction process**

1. Community agreement that SurfAid will assist with rebuilding.
2. Community selection of site/s.
3. Community consultation and guidance on basic design principles.
4. Participating families sign contract with SurfAid to follow agreed construction guidelines.
5. Construction groups are formed. e.g. 5 families or friendship groups work collectively to assist with the building of each other’s houses.
6. The construction process is divided into stages so the correct criteria for each stage must be met before the next distribution of materials. These criteria are set out in the Construction Progress Monitoring form. (Table 4).

Description of T shelter activity
Once site is selected and land is cleared, the process of supplying material begins.

The cement (two sacks for each family) for the foundations is distributed to begin the process. Before the nails are distributed, the foundations must be completed to the agreed specifications. Before roofing, iron is distributed, and wall bracing and timber connections are incorporated.

It is important to recognise the skills and experience that is unique to these communities. By not specifying one design or model, each family is empowered to build a home that reflects their needs and aesthetic desires.
Table 4: Construction project progress monitoring form

<table>
<thead>
<tr>
<th>Group number and family</th>
<th>Land cleared</th>
<th>Foundations set out and excavated</th>
<th>Sand, gravel and rock</th>
<th>Foundations completed</th>
<th>Timber onsite</th>
<th>Wall framing and bracing</th>
<th>Roof framing</th>
<th>Purlins</th>
<th>Roofing iron fixed</th>
<th>Flooring</th>
<th>Wall cladding</th>
<th>Windows and doors</th>
<th>Percentage completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 A.B</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>1.2 B.G</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>1.3 C.E</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>1.4 D.M</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5 E.F</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>9</td>
<td>97%</td>
</tr>
</tbody>
</table>

Conclusion
The Mentawai remains a challenging and difficult working environment. SurfAid remains committed over the long term to continue to help local communities help themselves.

Further study
1. Global Education links
Both these links have student activities relating to disaster recovery. The activities and questions can be applied using SurfAid’s current disaster recovery activities. www.globaleducation.edna.edu.au/globaled/go/pid/1876; www.globaleducation.edna.edu.au/globaled/go/pid/2259

2. Stop Disaster game – International Disaster Reduction Strategy
This interactive simulation game allows students to prepare an imaginary village showing the impact of a tsunami. Choosing the South East Asia coastal village scenario gives a good example of the challenges these areas face – www.stopdisastersgame.org/en/playgame.html. Develop a plan outlining what you might do if you lived in an area affected by such a hazard.

3. Additional resources – www.surfaidschools.org
Download free teaching resources on Mentawai geography, living conditions, image packs, videos, music and more. For more information about SurfAid International, visit www.surfaidinternational.org
INTRODUCTION

Chocolate provides one of life’s simple and inexpensive pleasures for many Australians with consumption concentrated around Christmas (chocolate Santa Claus), Easter (chocolate eggs), St. Valentine’s Day (chocolate hearts) and Hanukkah (chocolate coins). But while you chomp happily into your next chocolate treat, note there is little happiness for child slaves in the Ivory Coast, who harvest cocoa, an essential ingredient in truffles and chocolate bars. One wonders, if Willie Wonka was aware these child labourers had never tasted chocolate, would he still think the chocolate industry was a benevolent uncle.

Obviously all is not sweet in the chocolate industry as it faces many challenges in the 21st century. Today, more than five million families in Africa, Southeast Asia and the Americas grow and depend upon cocoa for their livelihood. Many of them struggle with low productivity due to traditional farming practices, lack of access to credit and property rights, and competition from large plantations. The cocoa industry is also affected by deforestation from clearing forests for cocoa trees and the adverse impacts of pesticides and fertilisers on the environment and on people’s health. Other contemporary issues include the control of the market by transnational corporations; child trafficking in the industry; impacts of El Nina, La Nina and climate change on cocoa production; substitution of cocoa butter with other fats; and genetically engineered cocoa species.

On a more positive note note the main stakeholders along the chocolate chain, from grower to retailer, are under increasing pressure to ensure the cocoa industry is equitable, sustainable and supports human rights.

DID YOU KNOW?

- 1624 Johan Rauch of Vienna condemned chocolate as it inflamed passion.
- 1680s in Martinique, chocolate was used as a reference for time. Arriving ‘at chocolate’ meant arriving at 8 o’clock.
- Main cocoa growing regions: Africa, Asia, Central America and South America between the Tropics of Cancer and Capricorn.
- 70% of cocoa comes from West Africa where 11 million people depend on cocoa for their livelihood.
- Largest producing countries, Ivory Coast and Ghana, supply 56% of traded coffee but only consume 0.5% of global consumption.
- Cocoa tree takes five years to produce its first beans.
- Duration of peak growing period for cocoa tree is 10 years.
• 5–6 million cocoa farmers.
• 40–50 million people depend on cocoa for their livelihood.
• 3 million tons of cocoa is produced annually.
• Annual demand for cocoa increased 3% per year for past 100 years.
• Market value of annual cocoa crop is $5.1 billion.
• 400 beans required to make half a kilogram of chocolate.
• From 2006 to 2012 global chocolate consumption is expected to increase by 15%.
• 22% of all chocolate consumption takes place between 8pm and midnight.
• Cadbury packs 345,000 bars in 12 hours.
• Chocolate manufacturers use 40% of the world’s almonds and 20% of the world’s peanuts.
• Chocolate was the centre of several books and film adaptations such as Charlie and the Chocolate Factory and Chocolat.

WHAT IS CHOCOLATE?

Chocolate comprises of a number of raw and processed foods produced from the seed of the wild tropical Theobroma Cacao tree. Possibly, a spelling error by English traders long ago, led ‘cacao’ beans to be known as ‘cocoa’. This unique bean is the only vegetable that is solid fat (cocoa butter) at room temperature but melts deliciously in your warm mouth!

After fermenting, drying, roasting and grinding cocoa beans, they are converted into chocolate used to flavour biscuits, ice creams, dairy drinks and cakes. Cocoa is also employed in the manufacture of tobacco, soaps and cosmetics and used as a folk remedy for burns, coughs, fevers, malaria, rheumatism and snakebites.

At the core of the chocolate debate is the definition of chocolate. Since 2000, the EU accepts 5% content of vegetable fats in chocolate products, such as palm oil, illipe, sal, shea, kokum gurgi and mango kernel. Cocoa growers object to allowing this food to be called ‘chocolate’, as it will reduce demand for cocoa beans by 200,000 tons a year.

The raw materials in chocolate are one of the most expensive items. Consequently retailers constantly request the price of the bean be kept low or the amount of cocoa be reduced.

DID YOU KNOW?

Each 0.454 grams of milk in chocolate contains:
2300 calories, 140 grams of fat, 100 milligrams of cholesterol, 370 milligrams of sodium, 270 grams of carbohydrates and 31 grams of protein.

Major components of manufactured chocolate include 54% cocoa butter, 11.5% protein, 9% cellulose, 6% tannic acids and colour, 5% water, 2.6% salts, 1% sugars, 0.2% caffeine and 10% organic acids and aromas.

Depending on chocolate manufacturers, the amount of cocoa mass ranges from 7%–15% in milk chocolate and 30%–70% in dark chocolates.

CAUTION! Most of us love chocolate but it is toxic for dogs and cats. Chocolate contains a xanthine compound called theobromine. The toxic dose of theobromine is about 70 mg per pound of pet, but like many substances, it depends on the sensitivity of the animal.

WHERE ARE COCOA TREES GROWN?

Past – tropical rainforests: Cocoa cultivation is restricted to the hot, humid belt between 10°C and 20°C north and south of the equator experiencing an average temperature of 25.5°C. The cocoa tree grows between five and ten metres high and at altitudes between 0masl and 700masl. Leaves covering the ground fertilise the soil and provide a breeding ground for insects to pollinate the cocoa flowers. As cocoa trees are fragile and prefer shade and high humidity, they are generally located on the lower level of evergreen rainforests, protected from wind and sun.

Now – global: As the popularity of chocolate spread, European countries established plantations in colonies located in the hot humid cocoa belt. Today nearly 60 tropical countries grow cocoa. Ghana, Cote d’Ivoire/Ivory Coast, Nigeria, Indonesia and Brazil account for 79% of the world’s production. In 1900 Latin America led the world in cocoa production but today Africa has the largest production.

Map: Cocoa production between the Tropics of Cancer and Capricorn
WHAT CLIMATE IS REQUIRED TO GROW COCOA TREES?

- **Temperature:** High temperatures with a maximum annual average between 27°C and 32°C and a minimum average between 18°C and 21°C.
- **Precipitation:** Cocoa tree yields are mostly affected by rainfall more than any other climatic factor. The trees require 1,500mmpa and 2,000mmpa distributed through the year.
- **Humidity:** The optimum development of cocoa trees requires a hot and humid climate. Relative humidity is high, often around 100% during the day and falling between 70% and 80% during the night.
- **Light and shade:** The cocoa tree was traditionally grown under the shade in evergreen rainforests.

Climate statistics: Accra (Capital of Ghana, a major cocoa growing country in Africa)

<table>
<thead>
<tr>
<th>Month</th>
<th>Temperature</th>
<th>Precipitation</th>
<th>Relative Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>°C</td>
<td>mm</td>
<td>am</td>
</tr>
<tr>
<td>Jan</td>
<td>23-31</td>
<td>11</td>
<td>95</td>
</tr>
<tr>
<td>Feb</td>
<td>24-31</td>
<td>22</td>
<td>96</td>
</tr>
<tr>
<td>March</td>
<td>24-31</td>
<td>56</td>
<td>95</td>
</tr>
<tr>
<td>April</td>
<td>24-31</td>
<td>100</td>
<td>96</td>
</tr>
<tr>
<td>May</td>
<td>24-31</td>
<td>132</td>
<td>96</td>
</tr>
<tr>
<td>June</td>
<td>23-29</td>
<td>215</td>
<td>97</td>
</tr>
<tr>
<td>July</td>
<td>23-27</td>
<td>67</td>
<td>97</td>
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<tr>
<td>Aug</td>
<td>22-27</td>
<td>28</td>
<td>97</td>
</tr>
<tr>
<td>Sept</td>
<td>23-27</td>
<td>72</td>
<td>96</td>
</tr>
<tr>
<td>Oct</td>
<td>23-29</td>
<td>62</td>
<td>97</td>
</tr>
<tr>
<td>Nov</td>
<td>24-31</td>
<td>28</td>
<td>97</td>
</tr>
<tr>
<td>Dec</td>
<td>24-31</td>
<td>18</td>
<td>97</td>
</tr>
</tbody>
</table>

Activities:
- Draw the climate graph of Accra
- Complete the following table

<table>
<thead>
<tr>
<th></th>
<th>Answer</th>
<th>Correct answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual average high temperature</td>
<td>29.6 °C</td>
<td></td>
</tr>
<tr>
<td>Annual average low temperature</td>
<td>23.4 °C</td>
<td></td>
</tr>
<tr>
<td>Average temperature</td>
<td>26.5 °C</td>
<td></td>
</tr>
<tr>
<td>Average annual precipitation</td>
<td>811 mm</td>
<td></td>
</tr>
</tbody>
</table>

Answer the following questions – True or False
- The average temperature in Accra is 26.5°C (T)
- The average temperature range is 4°C (F)
- The highest monthly temperature is 31°C in January, February, March and April (T)
- The lowest monthly temperature is 21°C in August (F)
- Accra receives 787 mm of rainfall per year (F)
- The driest months are January and February (T)
- The wettest weather is in June with 215 mm of rain (T)
- There are 0 days with frost in Accra (T)
- It is hotter and wetter in Accra than Sydney (T)

HOW DO COCOA TREES BECOME CHOCOLATE?

Cocoa tree varieties such as Criollo, Forastero and Trinitario are raised from seeds, cuttings, buddings and marcotting. The world cocoa market distinguishes between two broad categories of cocoa beans, ‘fine or flavour’ and ‘bulk or ordinary’. Generally, fine cocoa beans are produced from Criollo or Trinitario varieties, while bulk cocoa beans come from Forastero trees. Virtually all major production over the past five decades involved bulk cocoa, with the global share of fine cocoa production at only 5%.

Photographs: Cocoa process
1. Growing

Cocoa trees begin to bear fruit in the fifth year and reach peak production around 10 years. Inside the cocoa pod is a layer of sweet pulp, with 20–60 cream coloured cocoa beans. Pesticides must be applied to the cocoa tree as they are affected by pests (e.g. Cocoa beetle and Cocoa pod borer) and diseases causing a reduction in global production between 30% and 40%. For example, Black Pod fungus dries beans and Witches’ Broom fungus results in trees not producing proper pods. As a result shoots grow to look like witches’ brooms. The control of cocoa diseases, pests and fungus is important, as it results in lower cocoa production and higher chocolate prices for the sweet toothed Australian consumer.

Table: Annual reduction in potential cocoa production by major diseases 2001

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Region</th>
<th>Reduced Production ($ million)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Pod</td>
<td>Africa/Brazil/Asia</td>
<td>423</td>
</tr>
<tr>
<td>Witches’ Broom</td>
<td>Latin America</td>
<td>235</td>
</tr>
<tr>
<td>Frosty Pod Rot</td>
<td>Latin America</td>
<td>47</td>
</tr>
<tr>
<td>Swollen Shoot</td>
<td>Africa</td>
<td>28</td>
</tr>
<tr>
<td>Vascular streak dieback</td>
<td>Asia</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: www.apsnet.org/online/feature/cacao/top.html

2. Harvesting

To harvest cocoa, farmers reach the cocoa pods with long handled tools or sharp machetes. After the fruit has been cut down, it is opened and the seeds (beans) with its surrounding pulp are extracted. Although fruits mature throughout the year there are usually two harvests. The main crop generally has larger yields than the mid crop.

Table: Main seasons for crops

<table>
<thead>
<tr>
<th>Country</th>
<th>Main Crop</th>
<th>Mid Crop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>October – March</td>
<td>June – September</td>
</tr>
<tr>
<td>Ghana</td>
<td>September – March</td>
<td>May – August</td>
</tr>
<tr>
<td>Indonesia</td>
<td>September – December</td>
<td>March – July</td>
</tr>
<tr>
<td>Cote d’Ivoire</td>
<td>October – March</td>
<td>May – August</td>
</tr>
</tbody>
</table>

3. Fermenting

After the beans and pulp have been extracted, fermentation takes place. The beans with pulp are placed in fermentation boxes or between banana leaves, for 5-6 days, during which the sugar from the beans will turn into alcohol. During this process heat is generated. When the temperature reaches 50ºC beans lose some of their raw, bitter flavours.

After fermentation, the beans are spread out and dried for 14 days. Large plantations use hot air or heat from the burning wood to dry beans. Smaller farms dry the beans on raised bamboo mats. The beans are required to reduce their moisture level to 8%. Properly dried beans lose half their original weight.

Fermentation and drying affects the quality of the beans.

4. Roasting, Winnowing and Grinding

The next step in the preparation of chocolate is roasting followed by winnowing and grinding. After the beans are roasted the shell is removed to produce cocoa nibs. The nibs are ground to form pure chocolate in rough form. Because this cocoa mass usually is liquefied then moulded it is called chocolate liquor. The liquor may be processed into cocoa solids or cocoa butter.
Sweet chocolate is made by combining cocoa solids, cocoa butter or other fat, and sugar. Milk chocolate is sweet chocolate containing milk powder or condensed milk. White chocolate contains cocoa butter, sugar, and milk but no cocoa solids. In recent years a change in consumers taste led to an increase in dark chocolate with perceived links to improved health.

HOW HAS CHOCOLATE EVOLVED INTO A GLOBAL PRODUCT?

Cocoa, the key ingredient in chocolate, is the base of an intricate global system of people, families and communities who depend upon cocoa for their livelihood. From seed to sweet, chocolate began in the rainforests before it moved around the globe.

Somewhere in Central America, 3,000 to 4,000 years ago a Mayan and Aztec Indian picked up an odd, football shaped fruit from the trunk of a medium size, smooth-barked rainforest tree and started cultivation. Around 1100 BC the Olmec Indians (Maya) made cocoa beans into a drink and offered it to their gods during puberty rites, marriages and funerals.

Cocoa was made into a beverage known as xocolāt (meaning ‘bitter water’) by the Aztecs, flavoured with local spices (chile, cinnamon, musk, pepper and vanilla) and thickened with cornmeal. The Aztecs saw cocoa as a gift of the serpent god Quetzalcoatl (god of light) and was considered a stimulant, intoxicant, hallucinogen and aphrodisiac. The drink was served as a cure for anxiety, fever and coughs as well as warriors counted on cacao’s caffeine to assist them in battle. Today chocolate has progressed from a simple drink and food eaten by ancient Latin American tribes to a sophisticated drink favoured by the rest of the world.

Diagram: Chocolate globalisation timeline – from origin until today

- **3,000 to 4,000 years ago**: Cocoa plants were first cultivated in Mexico by the Myan and Aztec Native Central Americans.
- **1400s**: 1492 Columbus brought cocoa beans to King Ferdinand of Spain after his fourth visit to the New World.
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- **1500s**: 1518 Cocoa use in Aztec court of Emperor Montezuma. He built a cocoa plantation to ‘grow money’ in name of Spain. Beginning of Spanish cocoa monopoly lasting over two centuries.
- **1600s**: 1606 Carletti discovered chocolate in Spain and took it to Italy. Cioccolateri’s opened in Italian cities. Chocolate spread to Germany, Austria, and Switzerland.
- **1700s**: 1700, drinking chocolate expanded worldwide. 1728 Fry set up first chocolate factory in England using hydraulic machinery to process and grind cocoa beans. 1750 European countries acquired cocoa plantations in colonies to ensure own supply of cocoa beans. 1755 English colonies imported the drink.
- **1800s**: 1810 Venezuela produced 50% of the world’s cocoa. Spaniards consumed 30% of chocolate products.
- **1840**: First pressed chocolate tablets produced in Belgium. 1847 Fry created a paste that could be moulded – first modern chocolate bar. 1861 Cadbury created first heart-shaped candy box for Valentine’s Day. 1879 Formation of Nestlé Company. 1879 Lindt invented conching machine to heat and roll chocolate into a smooth consistency. 1895 Hershey sold first Hershey Bar using mass production techniques making chocolate affordable to the masses. 1899 Tobler started to produce chocolate.
- **1900s**: 1900 Price of cocoa and sugar dropped, making chocolate affordable to middle class. 1920s Chocolate became individual sized for snacking. 1939 During WWII, chocolate rationed in Europe, 4 ounces per person per week. 1990s Chocolate became a multibillion-dollar industry.
- **2000s**: 2000 Fusion cuisine: exotic spices such as saffron, curry and lemongrass now commonplace in chocolate. Chocolate has organic and kosher brands. High percentage of cocoa in chocolate recognised as a functional food, delivering antioxidants. 2000 Cote d’Ivoire world’s largest exporter of cocoa beans. Netherlands both imports and grinds the most cocoa.
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WHAT IS CURRENT GLOBAL PRODUCTION AND CONSUMPTION OF CHOCOLATE?

From 2000 to 2011 there were wide fluctuations in the demand and supply of cocoa. Yearly production growth rates ranged between minus 10% and plus 13% with an average of 2.5% per annum. Consumption of chocolate confectionary grew 11% in selected developed countries such as Australia. It is expected global consumption will increase 15% from 2006 to 2012.

Not all countries enjoy the sweet taste of chocolate equally. There is a dichotomy between nations extracting the raw materials and nations indulging in the finished product. For example:

- The eight largest cocoa-producing countries are developing countries – Côte d’Ivoire/Ivory Coast, Ghana, Indonesia, Nigeria, Cameroon, Brazil, Ecuador and Malaysia. These countries represent 90% of world production.
- Nineteen of the top twenty consuming countries are classified as developed, with 16 located in Europe. Brazil is the only developing country on the top list producing chocolate as a natural resource.
- The processing and consumption of chocolate products is dominated by western developed countries with 70% of profits from chocolate sales concentrated in these countries.
- Europeans consume 40% of the world’s cocoa per year of which 85% is imported from West Africa.

Table: Characteristics of world production and consumption

<table>
<thead>
<tr>
<th>Characteristics of world production</th>
<th>Characteristics of world consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predominantly grown by smallholders</td>
<td>• Traditional major markets – Western Europe and North America</td>
</tr>
<tr>
<td>Highly concentrated – 3 major producing countries</td>
<td>• High focus on advertising</td>
</tr>
<tr>
<td>High labour requirement during harvest</td>
<td>• Emerging markets in Asia, Eastern Europe and Latin America</td>
</tr>
<tr>
<td>Increasing threats from pests and diseases</td>
<td>• Growth in China over next decade</td>
</tr>
<tr>
<td>Recent liberalisation of markets in major producing countries led to lower quality and increased exposure of growers to price changes</td>
<td>• Positive health aspects (antioxidant flavinoids) and negative health aspects (fat and sugar content) influences consumption</td>
</tr>
<tr>
<td>Political instability in some producing countries</td>
<td>• Ageing farmers and reduced plant stock in West Africa affects future supplies</td>
</tr>
<tr>
<td>Ageing farmers and reduced plant stock in West Africa affects future supplies</td>
<td>• Low prices led to reduced inputs and lower productivity on many farms</td>
</tr>
</tbody>
</table>

Table: Global production (ICCO)

<table>
<thead>
<tr>
<th>Cocoa year (Oct – Sep)</th>
<th>2009/2010 (thousand tonnes)</th>
<th>2010/2011 forecast (thousand tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>World production</td>
<td>3.596</td>
<td>4.025</td>
</tr>
<tr>
<td>World grindings</td>
<td>3.632</td>
<td>3.798</td>
</tr>
<tr>
<td>End-of-season stocks</td>
<td>1.629</td>
<td>1.816</td>
</tr>
</tbody>
</table>

Growth in production forecasted to increase 6% from 2008/9 to 2012/13

Composite column graph: Changes in world production of cocoa beans in thousands of tonnes 1990–2006

In the early 1970s cocoa production was concentrated in Ghana, Nigeria, Côte d’Ivoire and Brazil but has now expanded to areas such as the Pacific region, where countries like Indonesia have shown spectacular growth rates in production.
WHAT IS ‘BIG CHOCOLATE’?

Today the chocolate industry has been reshaped by globalisation and downsizing. Big Chocolate is essentially an oligopoly between major international chocolate companies such as Kraft (after their purchase of Cadbury plc in March 2010), Mars, Nestlé and Hershey. Together these companies process 12% of the world’s cocoa each year. Mars and Hershey generate $13 billion a year in chocolate sales and account for two thirds of US manufacturers. Big chocolate has a significant impact on economies, many of them poor African nations, relying on cocoa production for foreign trade.

WHAT ARE RECENT TRENDS IN COCOA PRICES?

Cocoa prices have been rising for several years. Some of the problem can be laid at the door of financial speculators, poor management of cocoa farms and poor yields in the Ivory Coast.

The political crisis during 2010 and 2011 led to conflict in the Ivory Coast, a nation which accounts for over 35% of global cocoa production. The conflict led to a reduction in cocoa exports and rocketing prices. Nestlé, a major customer of cocoa from the Ivory Coast, was concerned that if the crises continued there would be insufficient global supplies by 2012. To ensure this does not occur, Nestlé’s multimillion Cocoa Plan aims to provide a sustainable global supply of cocoa by improving farming methods and replanting trees.

Unless factors contributing to the decreasing supply of cocoa are sustainably managed, chocolate could become a luxury, only to be consumed by those willing to pay the price for this decadent treat. One wonders – ‘will the increasing price of chocolate become too expensive for the average Joe by 2030?’ The prospect of a future without a ready supply of chocolate is not a pleasant thought for anyone with a sweet tooth but is more terrifying for producer countries dependent on cocoa beans for a huge portion of their income.
Cocoa futures contracts are traded in London and New York.

WHAT IS IMPACT OF EL NINO AND LA NINA ON COCOA PRICES?

Cocoa is sensitive to changes in weather such as duration and intensity of sunshine and rainfall as well as soil moisture and temperature. As La Nina and El Nino events change weather conditions their impact has resulted in changes to cocoa production.

In the past, El Nino events reduced cocoa production by 2.4% and world cocoa prices responded by increasing 1.66%. As El Nino events are not homogenous across cocoa producing areas some countries have been worse off (6.6% decline in production in Ecuador), others better off, and Ghana, Nigeria and Cameroon not affected. In contrast La Nina events in PNG resulted in increased production by 1.6%, possibly because of fewer diseases and pests from lower temperatures.

WHAT IS THE SWEET AND BITTER TRUTH?

Throughout chocolates evolution, from the first bitter beverage to thousands of ways it is enjoyed today, chocolate remains the ‘food of gods.’ This rich imagery of chocolate around romance, luxury, energy and health is associated with the advertising industry. When you buy a box of chocolates remember most of the money goes to transnational corporations and retailers as well as lifestyle magazines and TV stations, with little ending up in the hands of the world’s small cocoa farmers.

According to the European Fair Trade Association, farmers receive 5% of the profits from chocolate, whereas trading organisations and the chocolate industry receive 70%. This means producers obtain 5 cents from every dollar spent on chocolate while the companies receive 70 cents – 14 times more!

West Africa produces 75% of the world’s cocoa and feeds 2 millions smallholders. In the Côte d’Ivoire, 800,000 small-scale farmers, each earn about $300 a year. Despite growing most of their food, farmers face the following problems:

- lack of long term security due to fluctuating prices.
- receive a small fraction of the sale price for their beans which means they are unable to buy essential tools, fertilisers and pesticides and pay for school fees, medicine, transport and clothes.
- often underpaid by local cocoa buyers using ‘fixed’ (false) scales.
BITTER SWEET CHOCOLATE: FROM GROUND TO MOUTH

- find it difficult to switch to other crops, which takes time to grow and requires new farming skills.
- caught in a trading system benefiting transnational corporations based in rich countries.

There is also an equity issue. In 2000 Kenneth Wolfe, CEO of Hershey Foods, took home $7,877,554 in compensation plus $2,615,838 in stock options. G. Allen Andreas, owner of ADM Cocoa, received $8,381,371 in compensation for his services to the company.

In 2009, Bill and Melinda Gates foundation provided $48 million to support 200,000 small cocoa farmers in Cameroon, Ivory Coast, Ghana, Liberia and Nigeria. The project, aims to increase the revenues of small cocoa farmers by increasing productivity and the quality of cocoa.

Map: Africa cocoa bean production 2009

WHAT IS BLOOD CHOCOLATE?

While many of us are aware of Blood Diamonds, thanks to the movie starring Leonardo DiCaprio, most do not realise Blood Chocolate also exists as a tragic reality for a significant number of very poor people in West Africa.

The $50 billion dollar-a-year chocolate industry is steadily growing but its consumption comes at a heavy price. Chocolate slavery is widespread in West African countries such as Mali, the Ivory Coast (Côte d’Ivoire), Cameroon, Ghana and Nigeria. More than 109,000 children toil in cocoa fields under horrendous conditions. On a daily basis children work long hours, in hot temperatures, with dangerous tools and poisonous pesticides, and are then locked up at night to prevent escape. The majority of young children are either kidnapped or sold into slavery, robbing them of their freedom and a chance for an education.

Cartoon: Be My Valentine

There are 15,000 children from Mali working as slaves on 600,000 cocoa farms in the Ivory Coast. The ‘locateurs’ wait at Mali bus stations looking for children, mostly boys aged between 9 and 15 years, who are begging or lost. They offer the children well paid jobs then lock them in warehouses near the bus stations overnight. They are then transported in small vans to the Ivory Coast where they are sold as slaves to cocoa farmers. Mali’s Save the Children Fund director described ‘young children carrying 6 kg of cocoa sacks so heavy that they have wounds all over their shoulders.’

The Ivory Coast, blamed transnational corporations for keeping prices low and farmers’ poor, driving some into using child and forced labour. Cadbury, Hershey and Nestlé buy cocoa at commodity exchanges where Ivorian cocoa is mixed with other cocoa. The industry advocates the cocoa buying chain is so complex it is impossible to guarantee fair working practices on every farm.

Howard can we work towards a sustainable cocoa chain?

The 2001 Sixth International Cocoa Organisation (ICCO) Agreement promotes a sustainable cocoa economy where each person in the supply chain should be able to earn a decent income for themselves and their family, work in fair and healthy conditions, and in a manner which does not harm the environment.

The cocoa industry works with West African governments, non-governmental organisations (NGOs) and other stakeholders to ensure cocoa is grown responsibly, without the worst forms of child labour and slavery. The Harkin-Engel Protocol aimed to implement standards to certify cocoa was produced without the ‘worst forms of child labour’ by 2005. Following an extension of the Protocol the standards have yet to be implemented. Check the video on progress, ‘Bubbles of Nothing’ http://souleconomy.com/blood-chocolate-no-more-australia-buy-fairtrade-chocolate-this-easter/

Table: Active local-global citizenship

| UTZ Certified | In Ghana and Cote d’Ivoire the Certification process is underway. Nearly all children surveyed both helped on the family farm and attended school. Whether it involves hazardous tasks or takes place at the expense of education, is more difficult to determine accurately. |
An investigation by the BBC into the supply chain delivering most of the chocolate sold in the UK, found evidence of human trafficking and child slave labour. It also found there was no guarantee chocolate marketed as Fairtrade, did not involve child labour. By the time chocolate hits the shop it becomes increasingly hard to trace. There is no doubt the issue is complex, but if you are consuming something you have a responsibility to find out what you are buying.

HOW HAVE LOCAL COCOA COMMUNITIES BEEN EMPOWERED?

The World Cocoa Foundation (WCF) supports cocoa farmers and their families worldwide. The WCF programs raise farmer incomes, encourage sustainable cocoa farming, and strengthen communities.

World Coffee Foundation Projects:

Vietnam

Aim:
Promote cocoa among smallholder farmers in 12 provinces.

Progress:
- Cocoa breeding program.
- Maintains demonstration plots in 8 provinces to teach farmers about cocoa and conduct experiments.
- 5,252 farmers and local officials trained.
- Post harvest and pest control research.

Liberia

Aim:
Work with 5,600 smallholder cocoa farmers.

Progress:
- 4,365 farmers trained through farmer field schools: 2,500 farmers trained in crop diversification. Farmer Field School participants developed 39 nurseries and provided 481,843 improved cocoa seedlings.
- 17 farmer associations supported.
- 2,082 farmers trained in Farming Business – 1,000 farmers now keep farm records.
- 2,016 farmers trained on access to credit.
HOW CAN FAIR TRADE SUPPORT COCOA FARMERS?

Fair Trade supports small cocoa farmers by focusing on the following principles:

- producers receive a fair price – a living wage.
- forced labour and exploitative child labour not allowed.
- buyers and producers trade under direct long term relationships.
- producers have access to financial and technical assistance .
- sustainable production techniques are encouraged.
- working conditions are healthy and safe.
- equal employment opportunities for all workers.
- trade and production open to public accountability.

The Endangered Species Chocolate Company purchases cocoa through Fair Trade. By supporting small farm cooperatives, the company encourages Indigenous people to harvest naturally grown cocoa rather than producing cocoa requiring the clear cutting of rainforests.

In 2011 more Australians selected ethically produced Easter eggs and bunnies according to Oxfam Australia. The increase coincides with the release of a report showing only 3% of the world’s chocolate supply is certified as being produced without the use of child labour.

WILL ORGANIC CHOCOLATE BE THE FUTURE PRODUCT?

The organic cocoa market represents a small share of the cocoa market, estimated at less than 0.5% of total production. The ICCO estimates production of certified organic cocoa at 15,500 tonnes, sourced from: Madagascar, Tanzania, Uganda, Belize, Bolivia, Brazil, Costa Rica, Dominican Republic, El Salvador, Mexico, Nicaragua, Panama, Peru, Venezuela, Fiji, India, Sri Lanka and Vanuatu. However, the demand for organic cocoa products is growing as consumers are increasingly concerned about the safety of their food supply along with other environmental issues, such as food miles.

More than a decade ago, cocoa producers in Sao Tome and Principe were suffering from the falling global price of cocoa. Many abandoned their cocoa plantations, while others cut trees to clear land for maize or other crops. Thanks to the International Fund for Agricultural Development (IFAD), 2,200 farmers now grow cocoa certified as organic or fair trade for the global chocolate industry. As a result smallholder families participating in the programme saw their income increase from 25% below the poverty line to 8% above it. Many farmers invested in home improvements and purchased items such as bicycles, generators, radios, refrigerators and televisions.

WHAT ABOUT THE ‘OZ’ COCOA INDUSTRY?

Around the 1900s cocoa seeds were introduced into North Queensland but with limited commercial success. In 2008 Australia harvested its first commercial cocoa crop at Mossman, located in Far North Queensland. This ‘super chocolate’ is low in GI sugar and high in anti-oxidants.

Cocoa farming using innovative horticultural practices to improve yields made cocoa growing and processing a viable new industry in Australia by:

- using the cocoa pod packed with bioactive compounds (previously discarded).
- identifying lower temperature tolerant cocoa plants aimed to push the productive growing range further south to Mackay and west to the Atherton Tablelands.
- using reduced water.
- working on the microbiology of cocoa fermentation, using Australia’s and New Zealand’s dairy and brewing expertise.

While the crop improves, Horizons Science’s, 100% owned subsidiary, Cocoa Australia, aims to integrate the cocoa industry from plantation to consumer.

Also Cocoa Farm’s Wine Chocolate is hailed as a world first. The chocolates contain Australian Vintage wine, high in cocoa antioxidants and polyphenols. The Wine Chocolate has won many awards.

CONCLUSION

The harvesting of cocoa beans is in decline warning chocoholics the afternoon chocolate fix could become a costly indulgence and as rare as caviar by 2030. In fact within 10 years an expected 2% increase in consumption will require an area corresponding to another Cote d’Ivoire to satisfy demand. In 2010 the decoding of the cocoa
Active citizenship

Bitter Sweet Chocolate: From Ground to Mouth

Genome aims to produce greater quantities of cocoa from fewer trees using less land, as well as improving nutritive properties. Higher yields will free up land for other under-utilised crops in West Africa such as yams, sorghum and plantains.

Chocolate may be sweet but child trafficking, financing of conflicts, poverty and unsustainable farming practices are the bitter truth. The next time you savour a bite of chocolate — remember the sweet treat is the product of a global supply chain including shippers, processors, marketers, natural habitats and about 6 million farmers. In fact 284,000 children who toil in abusive labour conditions in West African cocoa fields have never tasted chocolate as it is both too expensive and most is exported. In other words your minor indulgence comes with major consequences.

Action is necessary, but it must be accompanied by wisdom. As recent events on the global stage indicate the enormous dangers in acting without ‘thinking it through’.

ACTIVITIES

TV

YouTube
- Chocolate: The Bitter Truth – Child Trafficking, BBC Panorama Investigation. 5 videos – www.youtube.com/watch?v=LD85fPzLUjo
- Child labour and child trafficking in cocoa industry and citizenship – www.cocoainitiative.org/ 7.52 min

PowerPoint

GEOGRAPHICAL INQUIRY AND SKILLS

- Geographical inquiry refers to the method geographers use to understand and explain the world around them. Students learn to design and apply the inquiry process, reflect on their findings and are open to multiple explanations. How much cocoa is in chocolate? How much of what we pay for our chocolate fix, makes its way back to cocoa farmers? Is chocolate sustainable? What can we do as active informed citizens to eradicate poverty, unfair trade and child labour in the chocolate industry?

- Geographical skills are the techniques and tools used by geographers. These skills are employed both in fieldwork and in classroom investigations.

Diagram: Developing geographical skills

1. Where is cocoa grown?
2. What type of climate is required to grow cocoa?
3. Where is most cocoa produced? What countries are the largest producers?
4. How does cocoa bean become chocolate? What are the processes?
5. What countries are the largest consumers of chocolate?
6. Where are emerging chocolate consuming countries located?
7. What are the largest chocolate companies? Why are they wealthy?
8. Where and why is child labour in the chocolate industry? What should we do about it?
9. Why are the producers of cocoa in Ghana still poor?
10. What is fair trade?
11. What can you do about unfair trade and child labour?
12. How can cocoa production be ecologically sustainable?
13. What are the recent changes to the industry?
Activities:

• Answer the geographical inquiry questions
• Collect information from a variety of primary and secondary sources evaluated for reliability and bias
• Gather and process information into maps, tables, graphs, diagrams and photographs
• Decide whether action is required in order to respond to the results of the investigation based on environmental sustainability, economic costs and benefits, and social justice
• Communicate findings using a combination of verbal, audio, visual and texts
• Reflect on the investigation (strengths and weaknesses)
• Develop an action plan to address issues identified through the investigation
• Implement action

ACTIVE CITIZENSHIP: CHOCOLATE FUNDRAISING


Diagram: Fair-Trade Morning Break

 ROLE PLAY

Take a chocolate bar (complete with wrapper) and divide students into seven groups relating to the cocoa supply chain such as:

1. **Producers**
e.g. farmers, miners.

2. **Raw materials**
e.g. cocoa beans, sugar, milk, wood for paper wrappers, aluminium for foil wrappers.

3. **Manufacturers**
e.g. chocolate factories, sugar mills and refineries, milk processors.

4. **Distributors**
e.g. warehouses, transport companies (delivery trucks).

5. **Retailers**
e.g. supermarkets, service stations, vending machines, hotels.

6. **Service providers**
e.g. designers, advertisers, market researchers.

7. **Consumers**
e.g. everyone!

Each group provides a short oral presentation detailing their key stage in the supply chain. Their presentation should include the problems of each stakeholder e.g. harvesting times, perishable nature of the product, type of transport used (refrigerated tankers) and price.

Source: www.tdtvictoria.org.au/rightmove/activity5.htm

Other activities

• Design an information leaflet explaining how the chocolate you are eating is connected to people producing cocoa in Ghana.

• Design a class or family survey on chocolate. Questions could include: What kinds of chocolate flavoured items do they eat? Where do they buy chocolate items (large supermarket, small business)? Have they eaten fair trade chocolate? Would they buy fair trade chocolate if it was more expensive than other types of chocolate?

• There is a sinister twist in the chocolate industry as it is not always a symbol of sweetness and innocence. Discuss the sweet and bitter truth providing global examples.

• Discuss how political awareness of slavery in cocoa production has moved individuals, organisations, governments and the chocolate industry into action.

• Explain how small poor farmers manage an increase of 107% for cocoa prices but at the same time experience an increase of 657% for insecticides, 250% for fungicides and 400% for spraying machines. Discuss a future scenario if this trend continues. Suggest sustainable strategies.

• Plantations have higher yields than small farms as they use more agrochemicals and slave labour. Explain how the promotion of organic chocolate only improves ‘part’ of the environment.
Bitter Sweet Chocolate: From Ground to Mouth

- Most children in Africa are unwilling to take over farms from their ageing parents. Discuss the future problems for the cocoa producing industry.
- When cocoa prices go up— the quality of small cocoa farmers’ life goes down. Explain the irony in this statement.

ICT Activities

Read the article on Chocolate History and Cocoa at www.cadbury.co.uk/ and answer the following questions:

- What are the origins of chocolate?
- Who brought the first cocoa beans back to Europe around 1503?
- What is the name of the explorer who first realised the commercial value of cocoa beans?
- What new information about chocolate surprised or interested you the most?
- Describe the ICI initiative – www.cocoainitiative.org/en/projects
- Describe the World Cocoa Foundation – www.worldcocoafoundation.org/
- Discuss how the farmer is connected to the consumer http://www.worldcocoafoundation.org/learn-about-cocoa/
- “The Australian Fair Trade Association and organisations such as Oxfam and World Vision want Australian chocolate lovers to start thinking about the suffering behind the indulgent treat.’ Explain this statement. www.theage.com.au/articles/2007/11/03/1193619205911.html.

Websites

- Developments and challenges – www.csae.ox.ac.uk/resprogs/cocoa/pdfs/CAA-Development-Challenges.pdf
- Dubble: Cacao trail – Follow the cacao trail – games (e.g. cacao chaos) and movies – www.dubble.co.uk/
- Ending slavery – www.freetheslaves.net/
- Fair trade and chocolate – www.globalexchange.org/campaigns/fairtrade/cocoa/-student-activities
- Fair trade into classroom – www.globalexchange.org/campaigns/fairtrade/cocoa/fairtradeintheclassroom.html
- Growing cocoa – www.icco.org/about/growing.aspx
- History of chocolate – www.bendicks.co.uk/history/chocolate.html
- ICCO agreements – www.icco.org/about/agreement.aspx
- Nestle – http://en.wikipedia.org/wiki/Nestle%C3%A9
- School of chocolate – http://library.thinkquest.org/4317/
- Slave free chocolate – www.slavefreechocolate.org/
- Teach about fair trade and cocoa – www.papapaa.org/
- World Cocoa Foundation – www.worldcocoafoundation.org/

Cartoon: Raphael’s famous portrait “Death by Chocolate Cake” oil on canvas, circa 1508

Source: www.cartoonstock.com/directory/c/chocoholic.asp
ICT UPDATE: Augmented Reality

Martin Pluss, Learning Technologies Coordinator, Loreto Normanhurst
http://twitter.com/plu

Watch the tennis, netball or the football and you will see writing and images on the court or field. No matter which way you look at the writing and images they are always the right side up. This is not because the court and the field have been painted but rather it is because reality has been augmented by the use of technology. Welcome to the world of Augmented Reality (AR).

Photograph: A more advanced application of Augmented Reality

This was viewed on a digital camera capable of AR. When you point out a building or certain location, it provides you information on restaurants, shops and other information available on the area.

Let’s have a cuppa!

While having a cuppa in the Toaster you take in the view of the Harbour Bridge. You then read the details of its construction on your smartphone, on foursquare, and note tips other people have left about the location. On the other side of the Opera House, where the Botanical Gardens are located, you note there is a nice run or walk along the foreshore to Lady Macquarie’s Chair.

A week later in Brisbane, in a cafe again, you access your smart phone. The process repeats itself and again there is a nice run on the other side of the river along South Terrace. Once again foursquare has added to your experience.

These two examples illustrate augmented reality. The same principles can be used for geography fieldwork. Real world interaction is enhanced by the use of technology and grass root involvement by people provides information for others to use.

Over a decade

Let’s take a step back a decade. As early as 2002 the University of Washington’s Augmented Reality was used to teach earth sun relationships to undergraduate geography students. The transference from 2D to 3D enhanced the experience and the learning of the students. This was made possible with the support of computer labs with headphones and special glasses for computers.

Almost a decade later widespread adoption is still limited although the talk about Augmented Reality is more prevalent and accessible due to the increased use of smart phones. What is fascinating about this research almost ten years ago is how it has been so slow to build traction when you consider other tools have accelerated in their use over a shorter period of time, such as geo locational devices and web tools (e.g. foursquare) and locational features (e.g. Facebook and Twitter).

In Augmented Reality the user maintains a sense of presence in the world. It specifically requires a mechanism (like a mobile phone) to combine the virtual and real world. Some of the broader uses of AR include consumer and engineering design, entertainment, manufacturing, maintenance and repair, and in the fields of medicine, the military and education.

More recently AR has been more clearly defined as a way of enhancing the real world with some technical information. For geography you can go on fieldwork and information can pop up on your phone about the location you are studying. For example the Yelp application on your iPhone feeds you information about your geographic location.

What else can you do?

Some of the more advanced AR applications include:

- attached to the windshield of your car and powered by a Garmin there are map overlays showing you where to turn with arrows;
- Breadcrumb App shows you on your phone a visible trail of where you have been;
- binoculars explain what you are seeing;
- tape measure takes measurements with its camera and saves the numbers which would be great for cross sections and transects in the field;
- contact lenses where you have your own personal dashboard;
- door peephole which I guess needs to be seen to be believed.

‘When someone knocks on our door, we want to know who they are. This could be possible using a facial recognition camera built into the peephole. While we’re at it, why not a quick popup of our visitor’s Facebook profile or their most recent tweet? In an AR world, ain’t nobody taking us by surprise!’

* How can I become a mayor in foursquare? If you’ve been to a place more than anyone else we’ll crown you the ‘The Mayor’ of that place. We calculate mayorships based on the most days with check-ins in the past 60 days (so 2 check-ins to the same place in one day just count 1x). Look out though – if someone else comes along who has checked in more days than you, they will steal the ‘Mayor’ title back from you. http://support.foursquare.com/entries/188263-how-can-i-become-a-mayor-in-foursquare

You can start a foursquare account through your browser and then obtain the App to use on your mobile phone. Three years ago if you were using foursquare there were limited locations to which you could connect. Why? The reason is the content is derived at the grassroots level. Now you can visit any major urban suburb on your foursquare account and a whole range of information and places to visit are available for your investigation. Side by side with this are reviews of consumer products and suggestions of attractions in the location you are visiting.

The 2011 Horizon Report gives AR a two to three year adoption horizon. The term, also linked to the notion of blended reality, is mainly used in the consumer sector – marketing, social engagement, amusement and location based information. The latter has more direct connection to geography.

Applied to Geography at Loreto

In relation to Geography, the 2011 Horizon Report discusses AR, Blogs and GeoTagging where a ‘simple AR layer’ is complemented with geo-tagged photos and blog entries. At Loreto Normanhurst we developed our simple version by using TripLine for Year 8 fieldwork to the Blue Mountains to investigate ecosystems and tourism. Students mapped out the trip and linked information to factual information, photographs and maps. This year we experimented with the use of iPads and iPhones with Google Maps and foursquare when we took Year 9 on an Outreach community service and learning experience in Far North Queensland.

What can we do in our teaching? Let us take a step back and start with something simple which you can use in the classroom or in the field. AR foursquare is an example of how you can use student’s mobile phones to access locational information. Foursquare has useful grassroots tips to assist learn about a location you are visiting. Try to look past the notions of *mayorships and the like and see what the experience is like and see how you can more broadly use the application for fieldwork.

‘AR interfaces do not merely change the delivery mechanism of instructional content. They fundamentally change the way that the content is understood, through a unique combination of visual and sensory information that results in powerful cognitive and learning experience’ (Sheleton, 2002). This 2002 quote rings true today. Evidence shows AR is now enhanced with smart phones and the iPad.

In 2011 AR is more accessible for geography teachers to use in their teaching and learning in the classroom and out in the field. Once you have learnt how to use foursquare you can build on your learning and share with other geographers by linking your movements to your school Twitter and Facebook accounts and profiles.
This aggregation of information provides a centralised location to collect information and report fieldwork findings when back in the classroom.

Did you know?
You may think you don’t know ‘augmented reality’ but unconsciously you are dealing with it everyday. It is found in computer games, newscasts, television shows and sports live telecasts. It’s a new way of presenting physical reality plus virtual reality. This is not a new technology. In fact, it was first introduced in 1990.

Sources:
- www.ambruceli.com/augmented-reality/

You Tube

Augmented Reality using GPS, displays a map – you will never get lost again! The military, using special goggles, provides augmented reality. Finding extract points and escaping enemies could become a breeze.

References
- Six Augmented Reality Gadgets – www.scordit.com/blog/6-augmented-reality-gadgets-we-want-now/

Did you know?
You may think you don’t know ‘augmented reality’ but unconsciously you are dealing with it everyday. It is found in computer games, newscasts, television shows and sports live telecasts. It’s a new way of presenting physical reality plus virtual reality. This is not a new technology. In fact, it was first introduced in 1990.

Sources:
- www.ambruceli.com/augmented-reality/

Geography and the Digital Age: Contour Education

www.contoureducation.com
For those who didn’t have the privilege of attending the annual GTANSW conference, Mick Law from Contour Education, discussed how to implement spatial programs in the Geography class.

The pace of the digital age is relentless. Every year smaller, newer, sleeker, more powerful, faster and more efficient digital technologies are released into the market and teachers have the overwhelming task of keeping up.

Contour Education aims to cater to the specific needs of teachers in the field of spatial technologies (Google Earth, GIS, remote sensing, GPS and more). Contour Education resources, available free online, contribute to answering those ‘where’ questions that form the basis of Geography:

Natural Hazards Using Youtube

Who said Youtube couldn’t be used wisely?

Year 9 Geography class had the challenge of making 5 minute mini-documentaries on natural disasters which they posted on Youtube.

The student’s spent the majority of Term 2 working on this task by researching, collecting images and more...then room 16 turned into a cinema!

**Students undertook the task in the following stages:**

**Step 1** – research a natural hazard according to assessment and syllabus requirements

**Step 2** – write a commentary/narration and record this using Audacity (on the DER laptops)

**Step 3** – source appropriate maps, diagrams and graphs

**Step 4** – import audio and visual material in to Windows Movie Maker or Adobe Premiere Elements to create an engaging presentation.

**Step 5** – publish the movie on Youtube and send Ms Donnelly the link

**Step 6** – SHOWTIME...’Geography at the movies’ lesson where we ate popcorn while watching a number of fantastic documentaries.

Links to a few examples of these fantastic documentaries are below. You will be amazed at the detail and effort put in by such a committed class.

<table>
<thead>
<tr>
<th>Name</th>
<th>Disaster</th>
<th>Weblink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annabelle Buda</td>
<td>Drought</td>
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<td>Greg Hartanto</td>
<td>Earthquakes</td>
<td><a href="http://www.youtube.com/watch?v=aTjqxjbPhhU">www.youtube.com/watch?v=aTjqxjbPhhU</a></td>
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<td>Nancy Ng</td>
<td>Bushfires</td>
<td><a href="http://www.youtube.com/watch?v=uh2s7LrCioo">www.youtube.com/watch?v=uh2s7LrCioo</a></td>
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<tr>
<td>Tom Herbert</td>
<td>Bushfires</td>
<td><a href="http://www.youtube.com/watch?v=xqn0_eKImtc">www.youtube.com/watch?v=xqn0_eKImtc</a></td>
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<tr>
<td>Harlan Ikin</td>
<td>Cyclones</td>
<td><a href="http://www.youtube.com/watch?v=mvRuuz9k1M">www.youtube.com/watch?v=mvRuuz9k1M</a></td>
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<tr>
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<td>Mandar Kelkar</td>
<td>Cyclones</td>
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<td>Marcus Chen</td>
<td>Bushfires</td>
<td><a href="http://www.youtube.com/watch?v=qYggokcrt90U">www.youtube.com/watch?v=qYggokcrt90U</a></td>
</tr>
</tbody>
</table>
Chatwood High School
Assessment Task – Year 9 Geography

Topic:
Natural Hazards

Due date:
Week 5 – Monday 23 May

Outcomes:
You will be assessed on your ability to:
5.1 Identify, gather and evaluate geographical information.
5.2 Analyse, organise and synthesise geographical information.
5.3 Select and use appropriate written, oral and graphic forms to communicate geographical information.
5.6 Explain the geographical processes that form and transform Australian environments.

Task:
Produce a news report or documentary about a natural hazard in Australia.

It should be between 3 – 5 minutes (max) in length.

Select ONE natural hazard from the list below:
• Bushfires
• Cyclones
• Earthquakes
• Floods
• Droughts
• Storms

Information to be included:
1. State the nature of the natural hazard.
2. Use a map to indicate the hazard prone areas in Australia
3. Explain the geographical processes associated with the natural hazard.
4. Outline a specific incident of this natural hazard that occurred within Australia (when, where, how much damage was caused).
5. Investigate the economic, environmental and social impacts of the natural hazard.
6. Analyse the responses of individuals, community-based groups and the various levels of government to the natural hazard (e.g. SES, police, charity groups).
7. Discuss the responsibilities of different groups (individuals, community, govt) with regards to this natural disaster.

Your news report / documentary should include appropriate recent statistics, footage and pictures of your selected research hazard.

Marking Criteria
You will be assessed on your ability to:
• Produce a news report / documentary with appropriate and accurate information.
• Integrate relevant geographic information such as examples and statistics.
• Produce high quality and detailed information on natural hazards.

Collect appropriate pictures, graphs, maps, footage and import these along with your commentary in Adobe Premiere Elements, Windows MovieMaker or a similar movie making program. Only after you have complete the academic side, should you start using special effects.

Đông không lo – chúng ta sẽ có thời gian trong lớp để sử dụng phần mềm, nghiên cứu và giải quyết vấn đề!

Đoàn nghiên cứu và tổng hợp thông tin đầu tiên.

Sau đó viết bình luận chi tiết sử dụng Microsoft Word và lưu nó vào một thư mục thuộc Natural Hazards Assessment.

Ghi chép bình luận sử dụng Audacity. Online tutorials for Audacity programs can be found at the Teaching and Learning Exchange (www.tale.edu.au). Search via DER resources and Tools 4 U.
MARKING CRITERIA

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| 17–20 | Accurately identifies a natural hazard with a detailed geographical map  
Comprehensive explanation of all the geographical processes  
Selects an appropriate example with thorough explanation of all three features  
Thorough investigation of all 3 impacts  
Superior analysis of the response of all 3 groups (individuals, community, govt)  
Thorough discussion of the responsibilities of all 3 groups  
Produces an outstanding multi-media documentary or news report within the time limit provided |
| 14–16 | Accurately identifies a natural hazard with a satisfactory geographical map  
Satisfactory explanation of all the geographical processes  
Selects an appropriate example with explanation of all three features  
Satisfactory investigation of all 3 impacts  
Some analysis of the response of all 3 groups  
Satisfactory discussion of the responsibilities of all 3 groups  
Produces a satisfactory multi-media documentary or news report within the time limit provided |
| 11–13 | Accurately identifies a natural hazard with a geographical map  
Attempts to explain all the geographical processes  
Selects an example with some explanation of all three features  
Attempts to discuss all 3 impacts  
Description of the response of all 3 groups  
Some examination of the responsibilities of all 3 groups  
Produces a documentary or news report within the time limit provided |
| 6–10 | Identifies a natural hazard with a map  
Describes some of the geographical processes  
Selects an example with description of some features  
Identifies some impacts  
Attempts to describe the responses of some of the groups  
Some understanding of the responsibilities of all 3 groups  
Produces a multi-media item |
| 1–5 | Identifies a natural hazard with/without a map  
Lists some of the geographical processes  
Selects an example with limited description of some features  
Identifies an impact  
Limited description of the responses of some of the groups  
Basic understanding of the responsibilities of some groups  
May / may not produces a multi-media item |
TOBACCO: FATAL GLOBAL EPIDEMIC

USING GEOGRAPHICAL TOOLS
Dr. Susan Bliss

‘Today, my subjects are starving and malnourished growers of tobacco, a crop that poisons its growers, the people who handle it and all those who consume it… My subjects deserve a better livelihood than being producers of poison.’

King Solomon Iguru, Bunyoro Kingdom, Uganda, 2004

GEOGRAPHY SYLLABUS

Knowledge and Understanding: Globalisation, Global Inequalities (Health, Poverty); Geographical Skills and Tools: Maps, Graphs, Photographs, Statistics, Diagrams; Citizenship: Local-Global; Values: Equity, Social Justice, Sustainable Environment; Cross Curricula Features: Gender, ICT, Numeracy, Literacy; Perspectives

NATIONAL CURRICULUM

Concepts: Place, Space, Environment, Sustainability, Interconnection, Change and Scale. Cross Curriculum – Asia, Sustainability, Citizenship and Geographical Inquiry and Skills – Maps, Graphs, Statistics, Tables and Photographs

INTRODUCTION

Billions of times a day, a match is struck and a cigarette puffed. Although governments aim to stamp out public smoking, its hazards don’t start with the flick of a cigarette lighter and stop with a final drag. Instead, tobacco begins with the pernicious destruction of trees and ends with the trodden butt finding its way into rivers and oceans.

By the beginning of the 21st century, the tobacco industry was producing six trillion cigarettes each year – enough to create a continuous chain from Earth to Mars and back, several times annually. Tobacco, responsible for more than five million deaths a year, is expected to rise to 10 million by 2030, with 70% of deaths occurring in developing countries. Today tobacco related deaths are more than the combined deaths from HIV/AIDS, malaria, tuberculosis, maternal mortality and childhood diseases.

Controversial issues surrounding tobacco growing and smoking are constantly in the news. For example: African countries produce tobacco for economic growth; pavement dwellers spend 86% of their income on tobacco in Mumbai; tobacco farmers are subsidised in the EU; child labour occurs in the tobacco industry in Malawi; money from selling cocaine and heroin is laundered back to drug barons through tobacco; billions of exported cigarettes go missing each year; and tobacco smoke is a potent mix of over 4,000 chemicals.

Tobacco smoking not only kills people but exacerbates poverty and contributes to world hunger by diverting prime land away from food production. The United Nations Millennium Development Goals (2000–2015) aim to lower tobacco use to improve health as well as reduce deaths, poverty and hunger in developing countries.

Diagram: More than 4,000 chemicals, 60 of which are known carcinogens

Source: http://4.bp.blogspot.com/-4e1bzBAOOlI/TdRP7jAajxI/AAAAAAAAABE/zSR3evaS2NQ/s1600/cigarette_chemicals.jpg

Cartoon: What is the message in the cartoon?

Source: www.worldsfastestclown.com/cc8.html
DID YOU KNOW?

- 1.3 billion people smoke.
- Cigarette sales are increasing 2% a year.
- Every 6.5 seconds someone dies from tobacco use (WHO).
- 84% of smokers live in developing and transitional economy countries.
- 100,000 young people start smoking every day.
- 63% of males smoke compared to 3.8% of women in China.
- 33 million people cultivate tobacco.
- Chinese state tobacco monopoly is the world’s largest cigarette producer.
- Cigarettes account for 96% of manufactured tobacco products in the world.

**WHAT IS TOBACCO AND TOBACCO SMOKING?**

**Tobacco**, discover by Columbus in 1492, is an agricultural product processed from the leaves of plants in the genus *Nicotiana*. Flavour, tar, nicotine and sugar content of tobacco varies depending on where the crop is grown, the position of the leaves on the stalk (leaves near the bottom of the stalk are lower in quality), and the weather during growing. Also the curing process (flue, air or sun cured) and leaf colour (light or dark) contributes to different types of tobacco.

‘**Tobacco smoking** is the act of burning dried or cured leaves of the tobacco plant and inhaling the smoke for pleasure, for ritualistic or social purposes, self-medication, but most commonly to simply satisfy physiological dependence on, among other chemicals, nicotine.’
(Source: www.nationmaster.com/encyclopedia/tobacco-smoking)

**WHERE IS TOBACCO PRODUCED?**

Tobacco is a cash crop grown in 125 countries of which 80% are developing countries. Over 4 million hectares of land (or 1% of the world’s agricultural land) is devoted to growing tobacco. The top tobacco producing countries are China (39.6%), India (8.3%), Brazil (7.0%) and the United States (4.6%). While tobacco creates employment, taxes for governments and trade for countries, there is also widespread use of child labour on tobacco farms.

Although tobacco farming is profitable for transnational corporations, small farmers often fall into debt as the cost of running the farm is larger than the resulting profits. The **Framework Convention on Tobacco Control** (WHO) calls for financial and technical assistance to tobacco growers in developing countries heavily dependent on tobacco agriculture. Moving farmers from producing tobacco to producing nutritious, economically viable and environmentally sound alternatives, is a preferred future for tobacco producing nations.
HOW IS TOBACCO GROWN?

The tobacco plant is grown in a variety of climates and on a diversity of soils but prefers to grow in a sunny location on well-drained soils. Extremely small tobacco seeds (not much larger than a pinprick) are generally sown in a greenhouse between 50 and 60 days. When the plant reaches 10cm in length it is then transplanted into the soil.

Tobacco requires plenty of water as well as fertilisers and pesticides during its growth. After tobacco is planted in the same soil for 5 years the farmer rotates tobacco with other crops to increase fertility and reduce the threat of pests and viruses. Tobacco is then harvested by removing leaves which are hung in a curing room. Following curing, tobacco is packed into various forms for consumption such as smoking, chewing and sniffing.

Table: Six steps to produce tobacco

1. Choose the soil
2. Obtain quality seeds
3. Plant the seeds
4. Use fertilisers and pesticides
5. Remove tops and suckers
6. Harvest and cure

Activities:
- What is tobacco?
- Where is tobacco grown?
- Describe the physical environment for growing tobacco.
- Explain the process from planting tobacco to curing its leaf.
- Refer to this interactive website www.tobaccoatlas.org/growing.html. List the hectares allocated to tobacco growing in Australia, Russia, USA, Brazil, India, Kenya, Nigeria, Indonesia, China and PNG.

WHY IS TOBACCO A GLOBAL PRODUCT?

Tobacco commenced growing in North and South America around 6,000 BC. In 1492, Columbus received tobacco leaves from the American Indians and sailors contributed to spreading the seed globally. Tobacco became so popular it was used as money and said to be as ‘good as gold’. Demand for cigarettes grew during World War I (1914–1918), and were referred to as the ‘soldiers smoke’.

Over time anti-tobacco movements evolved. In 1643 Tsar Michael of Russia declared smoking a deadly sin and smokers were flogged or had their lips slit. The earliest citywide European smoking bans were enacted in parts of Austria in the late 17th century. Only in the early 1960s when organisations opposed smoking, combined with health concerns from medical groups, did the tobacco control movement become popular globally.

Advertisement: Marlboro advertisements during WWII

Clandestine smoking by the avant-garde and the fashionable females occurred prior to World War I. Changes to society during the 1920s brought female smoking into the open.

Today tobacco is big business for both the raw material (tobacco leaves) and the finished product (manufactured cigarettes) with more than a trillion cigarettes passing through international borders each year.

Increased trade, foreign investment and global marketing led to the globalisation of the tobacco epidemic. At present Japan is the largest importer of cigarettes, China the largest producer of tobacco, Brazil the largest exporter of tobacco leaf, and Russia and the USA the largest importers.
Because USA tobacco is highly demanded globally, the country both imports and exports tobacco.

While tobacco production and consumption have been falling in many developed countries, the opposite is true for many developing countries:

- **Production** of tobacco leaf hit 7.1 million tonnes (WHO) with growth in developing countries but a decline in developed countries. Developing countries production growth was due to a 128% increase in productivity and an increase of 200% in land devoted to tobacco in China, Malawi and Tanzania. In contrast a contributing factor to the decline in developed countries was a 50% decrease in land devoted to tobacco in USA and Canada.

- **Consumption** decreased in developed countries and increased in developing countries with the later now containing 70% of the world’s smokers. China is said to be a ‘ticking time bomb’ with 320 million smokers, who smoke 30% of the world’s tobacco.

Some forms of tobacco, historically localised to specific regions of the world (such as hookah and bidi), spread to every continent and Indonesian kreteks are marketed to youths in developed countries. These exotic regional forms of tobacco gained a foothold in other countries but failed to gain a significant share of the traditional manufactured cigarette market. Instead, these cigarettes frequently serve as a gateway to addiction, luring youths into a lifelong dependence on cigarettes.

### Table: Global overview

<table>
<thead>
<tr>
<th>Countries</th>
<th>Land growing tobacco Hectares</th>
<th>% of agricultural land to tobacco</th>
<th>Tobacco produced Metric tons</th>
<th>Cigarette Exports Millions</th>
<th>Cigarette imports Millions</th>
<th>Tobacco leaf exports Tonnes</th>
<th>Number of workers</th>
<th>Marlboro $A pack</th>
<th>Local brand $A per pack</th>
<th>Labour to buy international brand Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>3,185</td>
<td>0.01</td>
<td>7,770</td>
<td>4,000</td>
<td>1,600</td>
<td>1,803</td>
<td>1,569</td>
<td>3.46</td>
<td>3.20</td>
<td>29</td>
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<tr>
<td>Brazil</td>
<td>309,989</td>
<td>0.45</td>
<td>588,000</td>
<td>700</td>
<td>---</td>
<td>343,030</td>
<td>18,807</td>
<td>0.85</td>
<td>0.80</td>
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<td>China</td>
<td>1,441,147</td>
<td>1.1</td>
<td>2,563,600</td>
<td>41,566</td>
<td>47,740</td>
<td>131,980</td>
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<td>1.57</td>
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<td>Cuba</td>
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<td>30,570</td>
<td>100</td>
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<td>6400</td>
<td>44,970</td>
<td>---</td>
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<tr>
<td>India</td>
<td>463,200</td>
<td>0.23</td>
<td>702,000</td>
<td>1,500</td>
<td>200</td>
<td>119,650</td>
<td>54,000</td>
<td>1.25</td>
<td>0.90</td>
<td>103</td>
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<td>Indonesia</td>
<td>223,000</td>
<td>0.72</td>
<td>145,000</td>
<td>17,500</td>
<td>140</td>
<td>38,000</td>
<td>237,400</td>
<td>0.62</td>
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<td>Malawi</td>
<td>113,823</td>
<td>6.18</td>
<td>120,000</td>
<td>30</td>
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<td>93,000</td>
<td>74</td>
<td>---</td>
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<tr>
<td>Myanmar</td>
<td>30,000</td>
<td>0.31</td>
<td>46,260</td>
<td>800</td>
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<td>---</td>
<td>2,060</td>
<td>---</td>
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<tr>
<td>Turkey</td>
<td>290,000</td>
<td>0.77</td>
<td>260,000</td>
<td>111,006</td>
<td>30</td>
<td>129,284</td>
<td>21,504</td>
<td>1.29</td>
<td>0.89</td>
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<tr>
<td>USA</td>
<td>191,176</td>
<td>0.15</td>
<td>477,650</td>
<td>148,261</td>
<td>15,064</td>
<td>190,538</td>
<td>27,300</td>
<td>3.71</td>
<td>3.60</td>
<td>20</td>
</tr>
</tbody>
</table>

### Activities

Refer to table and complete the following questions:

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>What country has the largest area of land devoted to growing tobacco? How much?</td>
<td>China; 1,441,147 hectares</td>
</tr>
<tr>
<td>What country has the smallest area of land devoted to growing tobacco? How much?</td>
<td>Australia; 3,185 hectares</td>
</tr>
<tr>
<td>What is the difference between the largest and smallest area devoted to growing tobacco?</td>
<td>1,437,962</td>
</tr>
<tr>
<td>What country has the highest percentage of agricultural land devoted to growing tobacco? What is the percentage?</td>
<td>Malawi; 6.18%</td>
</tr>
<tr>
<td>What country has the lowest percentage of agricultural land devoted to growing tobacco? What is the percentage?</td>
<td>Australia; 0.01%</td>
</tr>
<tr>
<td>Which country produces the most tobacco? How much?</td>
<td>China; 2,563,600 metric tons</td>
</tr>
<tr>
<td>Which country exports most cigarettes? How many?</td>
<td>USA; 148,261 million</td>
</tr>
<tr>
<td>Which country imports the most cigarettes? Why?</td>
<td>China; Increased demand. Over 60% of men smoke in a country of over one billion people.</td>
</tr>
<tr>
<td>Which country requires workers to work longer minutes to buy a packet of cigarettes? Explain</td>
<td>India; Need to work 103 minutes for a packet of international brand cigarettes</td>
</tr>
<tr>
<td>Which country requires workers to work longer minutes to buy a packet of cigarettes? Explain</td>
<td>USA; Need to work 20 minutes</td>
</tr>
<tr>
<td>What country charges the most for international brand cigarettes? How much?</td>
<td>USA; $3.71</td>
</tr>
<tr>
<td>Why is the international brand more expensive than the local brand of cigarettes?</td>
<td>Import duties to be paid and protection of workers and tobacco industry in the country</td>
</tr>
</tbody>
</table>
Questions | Answers
--- | ---
What is the difference in cost between and international and local brand of cigarettes in: Australia, China, Turkey | 24 cents; 17 cents; 40 cents
List the three countries with the highest number of people employed in manufacturing? | China, Indonesia, India
Cuba is known for cigars rather than cigarettes. Why are there no cigarette imports in Cuba? | US economic sanctions imposed by USA on Cuba, prohibits imported goods. In reality international brands can be purchased in Cuba. They have been smuggled into the country.
How many people work in the manufacturing of tobacco in Malawi? | 74; Most are employed on farms. Most tobacco is exported and manufactured in other countries

WHY ARE CUBAN CIGARS DEMANDED GLOBALLY?
Cuba’s premium cigars dominate the world market with 70% of sales. In a world of conspicuous consumption people pay $500 for a box of Alejandro Robaina’s Cuban cigars, due to Cuba’s favourable soil and climate, and strict quality control and selection during the growing and processing stages.
Approximately 200,000 private farmers and family members depend on growing and curing the leaf under contract with the government. Tens of thousands of workers earn their living hand rolling the crop into the famous Habanos or Puros for export
In 1962 the Cuban tobacco industry was nationalised by Fidel Castro’s communist government. As a result the government created Cubatabaco to handle production and distribution of Cuban tobacco products both locally and internationally. In 1994 Habanos S.A. was formed to export cigars and cigarettes worldwide, except to the US, which has a trade embargo against Cuba since 1962.
Castro, Churchill and Kennedy enjoyed a puff, but Cuban cigar exports have fallen by two-thirds in the last three years. Global economic troubles and the worldwide spread of smoking bans are taking their toll on Cuba’s famous cigar industry. Also a drop in the number of airline passengers to Cuba has hit duty free cigars, which comprises a quarter of its sales.

WHO ARE THE LARGEST CONSUMERS OF TOBACCO?
Worldwide tobacco sales totalled an impressive $661 billion in 2010 with cigarettes accounting for 91% of tobacco sold. Cigarette smoking declined in developed countries due to bans on cigarette usage in public places, restrictions on advertising, high taxes and health warnings on retail displays. While sales declined in developed countries they accelerated in developing and emerging markets.
Tobacco companies aggressively focused on young people living in developing countries. On one hand, the developing countries spent decades supporting child health programs while on the other hand they allowed the tobacco industry to target their children – the new generation of tobacco consumers.

Column graph: Rising global cigarette consumption

Table: Top tobacco consuming nations 2009

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Million Tonnes</th>
<th>% World Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China</td>
<td>3.11</td>
<td>38.0</td>
</tr>
<tr>
<td>2</td>
<td>EU</td>
<td>0.91</td>
<td>10.2</td>
</tr>
<tr>
<td>3</td>
<td>India</td>
<td>0.72</td>
<td>7.4</td>
</tr>
<tr>
<td>4</td>
<td>Russia</td>
<td>0.64</td>
<td>6.4</td>
</tr>
<tr>
<td>5</td>
<td>USA</td>
<td>0.63</td>
<td>6.2</td>
</tr>
<tr>
<td>6</td>
<td>Brazil</td>
<td>0.33</td>
<td>3.3</td>
</tr>
<tr>
<td>7</td>
<td>Japan</td>
<td>0.28</td>
<td>2.6</td>
</tr>
<tr>
<td>8</td>
<td>Indonesia</td>
<td>0.27</td>
<td>2.4</td>
</tr>
<tr>
<td>9</td>
<td>Turkey</td>
<td>0.24</td>
<td>2.0</td>
</tr>
<tr>
<td>10</td>
<td>Pakistan</td>
<td>0.20</td>
<td>1.4</td>
</tr>
</tbody>
</table>
Table: Cigarettes smoked per person in 2009

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Number cigarettes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Greece</td>
<td>3,017</td>
</tr>
<tr>
<td>7</td>
<td>Russia</td>
<td>2,319</td>
</tr>
<tr>
<td>12</td>
<td>Japan</td>
<td>2,028</td>
</tr>
<tr>
<td>25</td>
<td>China</td>
<td>1,648</td>
</tr>
<tr>
<td>39</td>
<td>USA</td>
<td>1,196</td>
</tr>
<tr>
<td>41</td>
<td>Australia</td>
<td>1,130</td>
</tr>
<tr>
<td>51</td>
<td>Cuba</td>
<td>1,010</td>
</tr>
<tr>
<td>52</td>
<td>Indonesia</td>
<td>974</td>
</tr>
<tr>
<td>109</td>
<td>Bangladesh</td>
<td>172</td>
</tr>
<tr>
<td>116</td>
<td>India</td>
<td>99</td>
</tr>
<tr>
<td>121</td>
<td>Ethiopia</td>
<td>52</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>% of young smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Palau:</td>
<td>58.5%</td>
</tr>
<tr>
<td>2</td>
<td>Chile</td>
<td>37.9%</td>
</tr>
<tr>
<td>4</td>
<td>Argentina</td>
<td>28.1%</td>
</tr>
<tr>
<td>5</td>
<td>Bolivia</td>
<td>26.4%</td>
</tr>
<tr>
<td>6</td>
<td>Poland</td>
<td>24.4%</td>
</tr>
<tr>
<td>8</td>
<td>Philippines</td>
<td>23.3%</td>
</tr>
<tr>
<td>9</td>
<td>Indonesia</td>
<td>22.0%</td>
</tr>
<tr>
<td>10</td>
<td>Mexico</td>
<td>21.7%</td>
</tr>
<tr>
<td>28</td>
<td>Kenya</td>
<td>13.0%</td>
</tr>
<tr>
<td>29</td>
<td>China</td>
<td>10.8%</td>
</tr>
<tr>
<td>30</td>
<td>Nepal</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

Source: www.nationmaster.com/encyclopedia/tobacco-smoking

WHY IS CHILD LABOUR IN MALAWI’S TOBACCO INDUSTRY?

‘WHO encourages countries to abide by the terms of the Convention on the Rights of the Child by taking necessary legislative and regulatory measures to protect children from tobacco, and ensure the interests of children take precedence over those of the tobacco industry.’


Tobacco companies are implicated in child labour in Argentina, Brazil, China, India, Indonesia, Malawi and Zimbabwe. While some children work with their families on small family owned farms, others work on large plantations. As Malawi is dependent on the tobacco industry for 70% of its foreign exchange it uses child labour in the quest to minimise costs. In Malawi 78% of children aged between 10 and 14 years and 55% between 7 and 9 years work full or part time with their parents on tobacco farms. Child labourers are forced by economic necessity to work with their poor family in the tobacco fields, risking their health and future. Children clear the land, build tobacco drying sheds, weed and pick tobacco. When they cut and bundle tobacco leaves they are at risk of absorbing pesticides and nicotine from the tobacco leaves through their skin, causing nausea and dizziness. Some even apply pesticides with their bare hands. This work violates not only international standards but also ILO convention 138 that sets a minimum working age of 18 years, which Malawi signed.

‘However, children involved in tobacco production face multiple problems including physical abuse, in the form of beatings from supervisors for not completing work, sexual abuse being perpetrated particularly against girls in exchange for more money, food or because they are late for work; being subjected to health hazards and working for long hours (an average of 12 hours a day) with very little pay’ (Plan). In 2010 a campaign against child labour in Malawi resulted in 2,000 children being removed from the country’s hazardous tobacco farms.

Photograph: Malawian Child labourer

Child labourers who pick tobacco in Malawi are poisoned by absorbing up to two cigarette packs’ worth of nicotine each day.

Source: www.care2.com/news/member/465852358/1229853

Cartoon: Playing with children’s lives. What is the message?

Source: www.corpwatch.org/article.php?id=14947

HOW IS TOBACCO LINKED TO HEALTH AND DEATH?

Most of tobacco’s damage to health is not evident until years or decades after the onset of its use. As the current tobacco industry’s marketing strategy targets young people in developing countries tobacco related diseases and deaths have yet to reach its peak.
In addition to the harmful effects caused by the direct use of tobacco, people are also exposed to indirect or second hand tobacco smoke, resulting in a 20%-30% increased risk of lung cancer and a 23% greater risk of heart disease. Nearly 700 million, or almost half of the world's children, breathe air polluted by second hand smoke and said to be at a higher risk of sudden infant death syndrome, pneumonia and asthma.

Table: Comparing tobacco deaths in developed and developing countries

<table>
<thead>
<tr>
<th>Shifting Tobacco Deaths</th>
<th>World Annual Tobacco Deaths in Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>Developed countries e.g.</td>
<td>2</td>
</tr>
<tr>
<td>Australia, USA, Japan</td>
<td></td>
</tr>
<tr>
<td>Developing countries e.g.</td>
<td>2</td>
</tr>
<tr>
<td>Most of Africa, South and Central America and Asia</td>
<td></td>
</tr>
<tr>
<td>World Total</td>
<td>4</td>
</tr>
</tbody>
</table>

Line graph: Twenty year lag between smoking and lung cancer

Pie graph: Deaths from tobacco use and smoking 2009

Activities:

- How many people died from tobacco use in 1950 and 1975 in developed and developing countries?
- What are the expected changes in deaths from tobacco use between 2000 and 2030?
- Why do you think there will be more deaths in developing countries rather than developed countries in the future?
- Explain the lag time between smoking and lung cancer.
- Do you think the lag means young people are more likely to take a chance – and smoke?
- Describe passive smoking.
- List the effects of smoking on your body – www.who.int/tobacco/research/smokers_body/en/index.html
- Research the problems of smoking when you are young.

WHAT ARE IMPACTS OF TOBACCO ON POOR PEOPLE?

Smoking kills one person every 6½ seconds. Poor uneducated people tend to be the largest smokers in both developed and developing countries, as they consider smoking one of life’s few pleasures. By the mid-2020s, WHO predicts, 85% of smokers will live in the world’s poorest countries.

In Latin America, low cost cigarettes between 50 cents and $1.30 a packet, aims to encourage smoking amongst the poorer sector of society. These countries refuse to clamp down on smoking for fear of losing valuable foreign investment.

Tobacco makes poor economic sense for small farmers in tobacco producing countries. For example in Malawi, profits from export earnings tend to go to the rich elite and thousands were moved off their land to make way for large tobacco estates, with minimal compensation.
Smokers may exacerbate the problem of malnutrition in developing countries because they tend to finance their habit by dipping into the family food budget. Surveys of 33,000 mostly poor households in Java, Indonesia, found the average family with at least one smoker spent 10% of their already small budget on tobacco. About 68% of a smoking family’s budget went on food compared to 75% of a non-smoking family.

Table: People living on less than a $1 a day in developing countries who smoke and the extent of malnutrition

<table>
<thead>
<tr>
<th>Country</th>
<th>Men</th>
<th>Women</th>
<th>$1 day</th>
<th>Child malnutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yemen</td>
<td>77%</td>
<td>29%</td>
<td>15.7%</td>
<td>46%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>69%</td>
<td>3%</td>
<td>7.2%</td>
<td>25%</td>
</tr>
<tr>
<td>Kenya</td>
<td>67%</td>
<td>32%</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>51%</td>
<td>4%</td>
<td>17.7%</td>
<td>34%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>48%</td>
<td>21%</td>
<td>36%</td>
<td>48%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>36%</td>
<td>9%</td>
<td>13.4%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Activities:

- Discuss the relationship between poverty and child malnutrition.
- Compare the percentage of poor men and women who smoke.
- Explain what poor people miss out when they buy a cigarette.
- Discuss the effects of smoking on families’ health.
- Describe what you could buy with the money you paid for a packet of cigarettes.

WHAT TOBACCO COMPANIES CONTROL THE INDUSTRY?

Over 50% of the world’s cigarette market is under the control of four transnational corporations. These companies are Philip Morris International (PMI – 16%), British American Tobacco (BAT – 16%), Japan Tobacco Inc (JTI – 11%) and Imperial Tobacco Group (ITG – 6%). The remaining market share is the China National Tobacco Company (39%) and the U.S. operations of Philip Morris through Altria (3%). The remaining tobacco companies account for 11% of the market.

In 2010, Louis Camilleri CEO of Philip Morris received $21,656,906 in compensation compared to the median tobacco worker’s wage of $33,190. In other words Camilleri received 652 times more than the median worker’s pay. Is this equitable?
WHAT ARE THE DIFFERENT PERSPECTIVES ON TOBACCO?

Table: Perspectives

<table>
<thead>
<tr>
<th>British American Tobacco (BAT)</th>
<th>Philip Morris USA</th>
<th>World Bank</th>
<th>India</th>
<th>Malawi and Zimbabwe</th>
<th>European Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda – 850,000 adults smoke and are aware of the health risks.</td>
<td>Agrees cigarette smoking causes lung cancer, heart disease and emphysema in smokers. They state there is no safe cigarette.</td>
<td>When health costs are taken into account the global tobacco market has an annual loss of $200 billion.</td>
<td>Government subsidises rolled-leaf smokes called bidis. Six million children under 14 years hand-roll tobacco. Government unsuccessful in curbing spread of toothpaste with tobacco in it, giving children an early taste.</td>
<td>Depend on tobacco production for economic growth. Both face food crop deficits and deforestation as hectares of trees are cleared to cure tobacco. Aims to end tobacco subsidies. Crop is only 0.1% of farmed land in Europe yet it receives $1.2 billion annually. Tobacco farmers receive 20 times the subsidy per hectare compared to those who grow food.</td>
<td></td>
</tr>
<tr>
<td>India Malawi and Zimbabwe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity: Complete the sentences

Malawi and ………1………. depend on tobacco for economic growth. The EU subsidises tobacco farmers who get times ………2…….. the subsidy per hectare compared to those who grow food. In India hand-rolled tobacco involves the work of ………3…….. children under 14 years. Global tobacco market has an annual loss of ………4…….. when health costs are included. In Uganda ………5…….. adults smoke and are aware of the health risks. In ………6…….. you can buy toothpaste with tobacco in it. It gives ………7…….. an early taste. Philip ………8…….. states that cigarette smoking causes lung cancer, ………9…….. and emphysema in smokers. Malawi faces food-crop deficits and ………10…….. as hectares of trees are cleared to cure tobacco. In Uganda two million jobs and ………11…….. depend on tobacco as their only source of income. There is ………12…….. safe cigarette. BAT enables governments worldwide to earn ………13…….. a year in taxes.


Photograph: A tube of IPCO obtained from a local Indian grocery.

This toothpaste tube was full of tobacco.

HOW IS SMOKE SMUGGLING AND INTERNET CONNECTED?

Billions of exported cigarettes go missing each year. The smuggled cigarette business is 14% of total consumption and illegal domestic production is 23% of legitimate production. Smuggling evades taxes and sales increase because cigarettes are cheaper. Smuggling is more common where there are weak border controls and in countries with import restrictions on tobacco.
Cigarette smuggling is also bolstering violent organised crime groups. In Brazil these groups use cigarette smuggling channels to supply weapons and munitions to its most dangerous syndicates, including the First Command of the Capital (FCC), the leading criminal gang in Sao Paulo prisons.

Recently transnational corporations have moved into less detectable forms of smuggling, such as selling tobacco on the Internet. The result has been a torrent of spam trying to sell cheap tobacco. In 2004 Philip Morris agreed to pay $1billion to the EU to fight tobacco smuggling.

Activities:
- Why are cigarettes smuggled?
- Suggest strategies to stop smuggling.
- Discuss how Philip Morris is fighting smuggling.
- Refer to this website – www.cigarettesreviews.com/tobacco-paradise and discuss the illegal cigarette trade in the following articles:
  - Cocaine moves into the booming illegal cigarette market (February 25, 2010)
  - Bedouin smugglers armed Hamas (April 16, 2009)
  - Inside Baltic Tobacco's smuggling empire (April 8, 2009)
  - Tackling illicit trade (May 4, 2009)
  - Thailand Tobacco Monopoly (August 9, 2010).

IS ADVERTISING EFFECTIVE?

To keep people smoking, cigarette advertising is everywhere. The advertisements associate cigarettes with success, glamour, excitement and a carefree lifestyle. It is far removed from cancer, heart and chest diseases.

‘All cigarettes are basically the same: tubes of chopped dried leaves of a particular species of plant, wrapped in paper, intended to be lit and the resulting smoke inhaled. So the fact that the same product can be rugged and macho in one brand but slim and feminine in another is almost entirely due to advertising. Tobacco companies argue that they need advertising to communicate important information to their customers. But there is virtually no worthwhile information in tobacco advertising. ’

Source: www.newint.org/features/2004/07/01/pushing/

Advertisements with a diversity of messages

http://elane.stanford.edu/images/exhibits/tobacco/luckystrike/irritationL.jpg
http://elane.stanford.edu/images/exhibits/tobacco/luckystrike/girlancientprejudicerevoledL.jpg
http://elane.stanford.edu/images/exhibits/tobacco/luckystrike/doyouinhalecoupleL.jpg
http://elane.stanford.edu/images/exhibits/tobacco/kent/morescientistseducatorssmokekentL.jpg

Anti-smoking groups, particularly cancer charities, along with government health departments attempt to counter tobacco advertising by creating their own advertisements to highlight the negative effects of smoking. The earliest commercials focused on aiding smoking cessation, increased risk of lung cancer and problems associated with passive smoking. Some campaigns now focus on decreased physical attractiveness and risk of erectile dysfunction. These aim to target younger smokers.

Advertisement: Marlboro Man – The rugged cowboy was seen on TV commercials and in magazine advertisements since the 1960s.
Pakistan: Glamour – pushing and peddling

Pakistan Tobacco Company (PTC), local subsidiary of BAT, conveys exciting, glamorous messages to young people, such as the advertisement showing a suave young man with a macho Western car. At the same time BAT increased its self promotion as a benefactor, including an advertisement about a fleet of mobile health dispensaries ‘that reach out to patients in far-flung places who need medical attention.’

Starting young in Senegal

‘When cigarette branded gear on child sized clothing like this is brought to the attention of tobacco companies, they are usually forced to stop unauthorised use of their brand name. But they are favourites for illicit copying because of the saturation coverage their brands get in many poorer countries.’

Targeting youth ‘be tobacco free!’

Most smokers start in their teens. The health warnings have a hard time getting through to young people for whom the risk of a heart attack or cancer years down the line appears distant.

Activities:
- What is the message in this poster?
- Why do you think the poster is focused on youth?
- Design a poster discouraging young people to smoke

Tobacco is advertised through a variety of media. The 2005 WHO Framework Convention on Tobacco Control requires the 168 countries, which signed the treaty, to ban tobacco advertising. In Australia, the 1992 Tobacco Advertising Prohibition Act prohibits most forms of tobacco advertising, including sponsorship of sporting or other cultural events. In the past various sports relied on sponsorship money from tobacco companies, both for the participants and for competitions, such as cricket (Benson and Hedges Cup) and women’s tennis (Virginia Slims).

Activities:
- Summarise the messages in the advertisements
- Explain how tobacco companies manipulate young people
- Marlboro man was a global image. What is the message in the advertisement today?

WHAT ARE LOCAL—GLOBAL CITIZENS DOING?

a) World Health Organisation MPOWER strategy:

M Monitoring tobacco use and prevention
P Protecting people from tobacco smoke
O Offering help to quit tobacco use
W Warning people about the dangers of tobacco
E Enforcing bans on tobacco advertising, promotion and sponsorship
R Raising taxes on tobacco

b) The World Health Organisation Framework Convention on Tobacco Control (FCTC) supported by 191 countries aims to: protect ‘all’ people from the effects of tobacco consumption and second-hand tobacco smoke; eliminate illicit trade in tobacco products; ban tobacco sales to minors; and promote alternative livelihoods for tobacco growers. The 2007 World No Tobacco Day focused on 100% smoke free environments and the two holy cities of Mecca and Medina in Saudi Arabia were declared tobacco free. Actions against tobacco use include: Kick Butts Day which empowers youths to take action against tobacco use; Smoke-Free Soccer FIFA program; and tobacco-free Olympic Games. Also the National Association for Stock Car Auto Racing (NASCAR) banned the sponsorship of tobacco companies from their races and encouraged employees who smoke to quit. Ultimately, Formula One aims to ban the sponsorship of tobacco companies from their races.

Cigarette package: Many governments now require tobacco packaging to carry health warnings
c) **Smoking bans** are public policies, including criminal laws and occupational safety and health regulations, which prohibit tobacco smoking in workplaces and/or other public spaces. Refer to map on smoking bans at http://en.wikipedia.org/wiki/File:Smoking_bans.png

d) **Tobacco laws** have been ineffective in many developing countries. For example in Malaysia smoking kills 10,000 people a year even though tobacco laws ban advertising on TV and radio. Instead tobacco companies sponsor sporting events and pop concerts. Today Malaysia is known as the world’s capital for indirect tobacco advertising. In 2005, Kuala Lumpur hosted a trade expo called 'Emerging Tobacco Markets' where tobacco barons made plans on how to exploit Asia, the most important future market.

e) **Individuals (personal scale)**

What can you do as an active citizen?

- Don’t smoke!
- Encourage action, for example writing to your local Member of Parliament – www.cancercouncil.com.au/editorial.asp?pageid=1071
- Become involved with Kick Butts Day – http://kickbuttsday.org/

**WHAT IS THE AUSTRALIAN STORY?**


Tobacco smoking first reached Australian shores when it was introduced to Indigenous communities by visiting Indonesian fishermen in the early 1700s. British patterns of tobacco use were transported to Australia in 1788. By the early 1800s tobacco was an essential commodity issued to servants, prisoners and convicts as an inducement to work, or conversely withheld as a means of punishment. By 1819, 80% to 90% of male labourers were smokers. Home grown tobacco was outlawed after initial plantings, since producing food for the new colony was deemed a priority. Illegal crops continued to flourish, however in 1803 tobacco growing was sanctioned once more.

In 2008, the rate of regular smoking among Indigenous Australians was over twice (45%) that of non-Indigenous Australians (19%). About 66% of Aboriginal and Torres Strait Islander children aged 0–14 years lived in households with one or more regular smokers compared with 35% non-Indigenous children.

British American Tobacco Australia (BATA), Philip Morris International (Australia), PMA and Imperial Tobacco Australia (ITA) operate in Australia as wholly owned subsidiaries of their overseas parent. Although per capita consumption is declining, tobacco companies remain profitable businesses with 1100 packs of 25 cigarettes sold in Australia every minute. In an effort to reduce consumption Australia raised tobacco taxes by 25% in 2010. Former Prime Minister Kevin Rudd pledged the government would spend $85 million on anti-smoking advertising campaigns as ‘cigarettes are not cool.’

**Activities:**

- Compare Indigenous with non-Indigenous smokers at 18, 35 and 55 years. Explain the differences
- Discuss the impact of exposure to tobacco smoke on Indigenous children’s health

The decline in smoking in Australia is attributed to increased publicity concerning the adverse effects of smoking and the introduction of tobacco control policies. This includes improved enforcement of laws prohibiting sales to minors, increased cigarette prices and Quit campaigns. By the mid 1990s, smokefree policies were introduced and as a result government offices have become smokefree and restrictions were introduced in shopping centres, hospitals, schools, child care centres and entertainment venues.

It is now commonplace in developed countries for smoking to be banned in most indoor public spaces including licensed premises such as pubs and nightclubs. Support for smoking bans has spread through the developing world, with Bhutan and Iran enacting smokefree legislation.

**Column and line graphs:** Major events in tobacco control and tobacco products per person 15 years and over in Australia 1906 to 1998–99, (grams)

NEWS ITEM
May 2011: The Australian Government’s decision to enforce plain cigarette packaging may fuel the underground market in illegal tobacco trade and products. This includes cheap contraband products known as ‘chop chop’ from China, Indonesia, the Middle East and Eastern Europe.

British American Tobacco Australia is one company fighting the Government’s plan to make producers use drab green coloured packaging on all products. The company says there is no evidence the move will curb smoking rates and cheaper prices will lead to more people, including children, smoking.

Source: www.qutnews.com/2011/05/17/plain-packaging-may-fuel-illegal-tobacco-trade/

IS TOBACCO SUSTAINABLE?
An estimated 200,000 hectares of forests are cut down each year for tobacco farming. Cigarette manufacturing uses wood to cure the tobacco and to roll and package the cigarettes. Approximately one tree is consumed for every 300 cigarettes produced. In Brazil, 60 million trees per year are required for curing, packaging and rolling cigarettes. Tobacco cultivation in China, Malawi and Zimbabwe caused 5% of the deforestation, leading to increased desertification and flooding and decreased food output.

Tobacco also requires large quantities of chemical inputs such as pesticides and fertilisers:

- **Pesticides**: Up to 16 applications of pesticides are recommended during a three-month growing period. As a result pesticides may run off into water courses, contaminating local water supplies.
- **Fertilisers** are essential as tobacco plants leach nutrients such as phosphorus, nitrogen and potassium from the soil. The plant is particularly potassium hungry, absorbing up to six times as much as other crops, leaving soils in a poor condition for essential food crops.

The manufacturing of tobacco products produces an immense amount of solid and chemical waste as well as litter. Even though littering of cigarette butts is illegal in Australia, seven billion cigarette butts a year or 60% of Australian smokers, do not dispose of their butts in a proper manner when smoking outside. Chemicals in cigarette butts and toxic residue within filters leach into the soils and waterways, polluting these environments.

**Tobacco packages** consisting of cardboard, foil and plastic wrappers as well as matches, match boxes and lighters contribute to smoke related litter. Discarded cigarettes and matches cause fires. In the US they cause 1,000 deaths and 3,000 injuries a year and in Australia, around 14 people die annually. Every year the NSW Fire Brigade is called to hundreds of roadside fires believed to be caused by discarded butts. In 1987 the world’s worst forest fire caused by cigarettes in China killed 300 people and destroyed 1.3 million hectares of land. Costly forest fires make sensational headlines, especially in dry, hot Australian environments. Since January 2009, all cigarettes sold in Arkansas have a Safe Cigarettes (FSC) label and Philip Morris uses ‘banded cigarette paper’ to comply with the performance standard in the FSC laws.

During 2007 the Federal Department of the Environment, Water, Heritage and the Arts announced a ‘National day of action on cigarette butt litter’. Also the Victorian Litter Action Alliance compiled a Litter Prevention Kit encouraging municipalities to take action on butt litter.

Pie graph: Number of fires on public land in Victoria

Advertisement: Please But it! Then bin it!

Source: www.kabnsw.org.au/programs_old/tabid/47/articleType/ArticleView/articleId/82/Butt-It-Then-Bin-It.aspx
WHAT IS TOBACCO’S FUTURE?

The global outlook for the tobacco industry is optimistic. The developing world, home to 80% of the world’s smokers, is ripe for future exploitation due to governments’ willingness to embrace tobacco growing and manufacturing in return for substantial financial inducements as well as lack of effective tobacco regulations.

In Australia and other developed countries, smoking will continue to be concentrated among the disadvantaged sectors of the community. To cater for this market the industry will ensure tobacco products are affordable. Tobacco companies also acknowledge their markets are likely to become more tightly controlled in the future. Constraints could include: controls on emissions and ingredients; deletion of brand names and imagery; introduction of generic packaging; and government control of non-profit tobacco distribution and sale. Litigation will continue to remain a concern for the industry.

Whatever your views on smoking, most tobacco companies state ‘there is no safe cigarette’.

Activities:

a) Perspectives: Role play

There are many sides to a story. In groups explore the advantages and disadvantages of smoking tobacco. Allocate pairs to different roles such as: economist, environmentalist, doctor, World Health Organisation, small tobacco farmer in developing country, child labourer in Malawi, person dying from lung cancer from smoking, youth who follows peers and smokes, developing country dependent on tobacco for economic growth, head of a large tobacco company, subsidised tobacco farmer in the EU, tobacco retailer, smuggler of cigarettes, retail seller on the Internet, lawyer on tobacco cases, and anti-smoking activist.

After the role play class summarise the different perspectives

b) Perspectives: Group work

Divide into four groups. Each group complete the scaffold on: Why Australia should adopt a smoke free environment.

- Present findings as a PowerPoint. Use a variety of resources such as pictures, movies, graphs, statistics and maps.
- Write a letter to a member of parliament on whether or not Australia should support 100% smoke free environments.

Scaffold

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1: White hat:</td>
<td>Information and Data</td>
</tr>
<tr>
<td>Group 2: Yellow hat:</td>
<td>Values and Benefits</td>
</tr>
<tr>
<td>Group 3: Black hat:</td>
<td>Caution, Difficulties, Problems and Risks</td>
</tr>
<tr>
<td>Group 4: Green hat:</td>
<td>Alternatives, Creativity, Growth</td>
</tr>
</tbody>
</table>

c) Ticktactoe

Write one note in each section on how the topic is related to tobacco. Give an example or a statistic.

Who will finish first?

<table>
<thead>
<tr>
<th>Small Farmer in Developing Country</th>
<th>Child labour</th>
<th>Global Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transnational Corporation</td>
<td>Impacts on Environment</td>
<td>National and Global Citizenship</td>
</tr>
<tr>
<td>Impacts on Health</td>
<td>Global Production</td>
<td>Smuggling and Internet</td>
</tr>
</tbody>
</table>

d) Problem solution chart

Students firstly brainstorm the problems of smoking. They secondly research the possible solutions to the problems

<table>
<thead>
<tr>
<th>PROBLEMS</th>
<th>POSSIBLE SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>For example:</td>
<td></td>
</tr>
<tr>
<td>Young smokers</td>
<td></td>
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<tr>
<td>Lung cancer from smoking</td>
<td></td>
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<tr>
<td>Lack of education on the link between health and tobacco use</td>
<td></td>
</tr>
<tr>
<td>Poor returns to small tobacco growers in developing countries</td>
<td></td>
</tr>
</tbody>
</table>

e) Fact and opinion

Graphic organisers can be used to help distinguish facts from opinions in a news article. This is a useful tool for developing critical thinking skills.

- Facts are statements shown to be true or can be proved. You can look up facts in reference books or see them for yourself.
• Opinions express how a person feels about something. Opinions do not have to be based upon logical reasoning.

- Add details to each column.

<table>
<thead>
<tr>
<th>FACTS ON TOBACCO</th>
<th>OPINIONS ON TOBACCO</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

f) Literacy paragraphs

- Expository Paragraph: This paragraph explains an idea; it is also called an information paragraph. For example: Explain how tobacco is grown.
- Persuasive Paragraph: This paragraph tries to convince the reader of something. This type of paragraph may start with a phrase like: ‘I think that...’ The support section may include sentences that start with, ‘One reason is...’; or ‘For example...’. It may end with something like, ‘This is why I think that...’ For example: Why young people should not take up smoking.
- Narrative Paragraph: This paragraph describes an event or tells a story, usually in chronological order. For example: The adverse health effects from smoking on a person you have either met, heard on TV or read about.

Scaffold

- Topic Sentence
- Support details and examples
- Concluding Sentence

- g) Other activities

  **YouTube:** Smoking – www.youtube.com/watch?v=atgF27aIgY4
  **BBC Child Labour in Malawi:** www.executiveinterviews.net/playert/full/default.asp?order=UK04067
  **PowerPoint presentation:** World Bank – www1.worldbank.org/tobacco/presentation.asp


  **Media literacy: Videos**
  Smoking portrayed in movies amounts to virtual advertising for smoking:
  - **Smoke Screeners** is an educational program teaching media literacy skills – www.cdc.gov/tobacco/youth/educational_materials/videos_dvds/media_literacy/smokescreen.htm
  - **Secrets through the Smoke** is a 55-minute video featuring the tobacco industry. It covers the ingredients in cigarettes, marketing practices and campaigns. A teacher’s guide and questions are provided – www.cdc.gov/tobacco/youth/educational_materials/videos_dvds/tobacco_industry/ssmoke.htm

  **Short response:**
  - Design a poster or PowerPoint presentation promoting a smoke free home, school and work environment.
  - Children have easy access to cigarettes, despite the fact it is illegal to sell tobacco to minors. Comment.
  - Explain the message in this poem from the pop song *Stop! (Smoking)* by Ugandan superstar Rachel Magoola.

  **h) ICT Activities**

  - Explain how tobacco caused deforestation and starvation in Africa – www.newint.org/features/2004/07/01/kenya/
  - Draw a time line illustrating the globalisation of tobacco – www.tobacco.org/History/Tobacco_History.html#aa4
THE CRITICAL DECADE – CLIMATE CHANGE REPORT

In its first report, titled The Critical Decade, the Climate Commission says evidence the planet is warming is now even stronger. It warns global warming could cause global sea levels to rise up to one metre by the end of the century, higher than previously thought. To minimise the risk of climate change, the commission says Australia must decarbonise its economy and move to clean energy sources by 2050.

While the report acknowledges the science is advancing, it notes there are still questions in the public arena. ‘The public still seems to be confused about a few of those issues and I think that’s partly due to uninformed opinion,’ Professor Flannery said. Climate scientist and commissioner Professor Will Steffen is concerned the science is being muddied in the media by many with no credentials. ‘I don’t think we have the luxury anymore of climate denialism. We need to get beyond this fruitless phoney debate in the media,’ he said. Professor Steffen says the decisions made between now and 2020 will determine the level of severity of global warming.


• Explain how Australia is managing direct and indirect smoking on people’s health – www.ashaust.org.au/

• Discuss the purpose of the Tobacco Free Kids message – www.tobaccofreekids.org/

• Describe how advertising companies promote smoking – www.newint.org/features/2004/07/01/pushing/

• Satellite imagery: Where are tobacco companies manufacturing plants located? Cigarette Citadels project illustrates where ‘cancer sticks’ are produced – www.stanford.edu/group/tobaccopr/wordpress/?tag=world-health-organization. The map allows you to zoom in via satellite imagery on tobacco companies’ manufacturing plants. News video on the project at – www.stanford.edu/group/tobaccopr/wordpress/?page_id=1105

i) ICT


• International Tobacco Control – www.idrc.ca/tobacco/

• OxyGen – Australian youth oriented tobacco site provides information on tobacco related topics and issues – www.oxygen.org.au/

• Tobacco Atlas – www.tobaccoatlas.org/

• Tobacco Fact File – www.tobaccofactfile.org/

This guide focuses on some of the features to help you

www.abs.gov.au – ABS INFORMATION IS FREE
All content on the ABS website is free. It includes 1996, 2001 and 2006 Census data, all publications from 1994 onwards and time series spreadsheets.

Spotlight on...
* Highlights topical ABS information

Regional Statistics –
* National Regional Profiles, a range of data compiled for geographic area
* States & Territories Statistical Indicators

National Statistics
* Key National Indicators – Useful summary of key national indicator data
* Census Data – QuickStats, MapStats, Census Tables, Community Profiles, CDataOnline, Table Builder
* Picture of the Nation 2006 – analysis of 2006 Census

Key Products
* Australian Year Books
* Measures of Australia’s Progress
* Australian Social Trends
* Australia’s Environmental Issues and Trends

Topics @ a Glance
ABS statistics organised by broad topics:
* Economy
* Environment & Energy
* Industry
* People
* Regional

All Statistics: Catalogue
1. General (e.g. Year Books, directories, catalogues)
2. Census of Population and Housing
3. Demography (e.g. births, deaths, migration, population)
4. Social Statistics (e.g. education, health, environment)
6. Labour Statistics and Prices (e.g. unemployment)
7. Agriculture (e.g. land use, products)
8. Secondary Industry and Distribution; Mining
9. Transport (e.g. motor vehicle registration)

ABS SITE – TIPS ON HOW
* When you see a ‘twistie’ like this► in a list, you need to click on the twistie itself to go to the next level down. E.g. the twistie beside Australia has been clicked, opening up a list of states.

If you want data for the whole of Victoria, click on the word "Victoria".
If you want data for a part of Victoria,

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for Geography Teachers

make the best use of the website for your students.

National Information & Referral Service (NIRS)
Phone: 1300 135 070, Email: client.services@abs.gov.au
ABS Education Services – Phone: 1800 623 273, Fax: 03 9615 7798, Email: education@abs.gov.au

Search
Type in your word to search the entire ABS website.

* Classroom activities: Geo01– Geo14, Years 7–11
* QuickGeog: Single lesson activities based on a graphic, Social & economic datasets, packaged for classroom use
* Historical datasets: 1788 onwards, with data visualisations
* Indigenous Statistics for Schools.
* Interactive population pyramids.
* Activities for Geography, Maths and Humanities.
* Education News – keep up to date with ABS data relevant for schools, including CensusAtSchool.

Geography
* Population Clock: animated & interactive age/sex pyramids
* ABS Geographies: ASGS (Australian Statistical Geographic Standard) Cat. 1270.0.55.001 (introduced July 2011) replaces ASGC (Cat. 1216.0). Maps of ABS geographical areas in range of formats (.pdf, .csv) MapInfo Interchange & ESRI Shapefile formats (zipped). Cat. 1270.0.55.003 ASGS Maps of Non-ABS geographies
* Social Atlas: thematic maps of social indicators for Australia’s capital cities (Cat. 2030.0).

GIS Free Digital Data
* Boundaries: ASGS – 1270.0.55.001(mesh blocks, SA1, SA2, SA3, SA4, Greater Capital cities, States) in MapInfo Interchange, ESRI Shapefile formats (zipped), (click on ‘Downloads’ tab). ASGC (Pre 2011) – Cat. 1259.0.30.001, 1259.0.30.002, 1259.0.30.003, 1259.0.30.004, MapInfo Interchange, ESRI Shapefile formats
* ASGC Census geographies: 2006 Cat. 2923.0.30.001.

TO FIND INFORMATION
click on the twistie (►) and the next level of geography will appear (Melbourne, Barwon, etc)
* ABS Data opens on the ‘Summary’ page. You need to go to the ‘Downloads’ tab to get to the data itself. From here you can download the file that you want.
* Always check whether you have the latest data by clicking on the ‘Past and Future Releases’ tab.
GEOGRAPHY BOOKS AND JOURNALS

The New Introduction to Geographical Economics, 2nd Edition

Authors: Steven Brakman, Harry Garretsen and Charles van Marrewijk
Publisher and date: Cambridge University Press, May 2009
ISBN: 9780521698030
Number of pages: 596 pages, 17 maps, 58 tables

Resource description: Teacher reference book
Abstract: Geographical economics starts from observing economic activity is not randomly distributed across space. This revised edition uses the modern tools of economic theory to explain the who, why and where of the location of economic activity. The text presents a global analysis using case studies from around the world, including North America, Europe, Africa and Australasia. It also contains computer simulations and end of chapter exercises to encourage learning and understanding through application.

Geomorphology: The Mechanics and Chemistry of Landscapes

Author: Robert S. Anderson and Suzanne P. Anderson
Publisher and date: Cambridge University Press, July 2010
ISBN: 9780521519786
Number of pages: 654

Resource description: Teacher reference book
Abstract: This textbook provides a modern, quantitative and process-oriented approach to equip teachers with the tools to understand geomorphology. Insight into the interpretation of landscapes is developed from basic principles and simple models. Boxed worked examples and real-world applications bring the subject to life for students, allowing them to apply the theory to their own experience. The book covers cutting edge topics, including the importance of geomorphology in understanding environmental changes. This book arms teachers with tools to fully explore processes and understand this topic in the National Curriculum.

Culture and the Middle Classes

Author: Simon Stewart
Publisher and date: Burlington, VT: Ashgate Publishing Company, 2010
ISBN: 9780754675334
Number of pages: 193

Resource description: Teacher reference book
Abstract: This book provides a detailed analysis of cultural practices, including the middle-brow, traditional culture vultures, middle class plunderers, the urban arts eclectic and the English gentleman. There is a particular focus on those expressing the ‘silver disposition’ – predominantly affluent, middle-aged and white, with a taste for conspicuous consumption and established cultural forms. The book brings together a range of disparate sources on the middle classes and offers a sustained engagement with the concept of ‘culture’. The findings emphasise the continuing link between class and taste. Other comments at www.independent.co.uk/opinion/columnists/thomas-sutcliffe/tom-sutcliffe-workingclass-culture-thats-so-middle-class-1787354.html

Historical GIS: Technologies, Methodologies, and Scholarship

Author: Ian N. Gregory and Paul S. Ell
Publisher and date: Cambridge University Press, February 2008
ISBN: 9780521671705
Number of pages: 240 pages, 8 colour illustrations, 3 tables

Resource description: Teacher reference book
Abstract: Geographical Information Systems (GIS) is used to research the geographies of the past. This technology offers opportunities to add insight and rejuvenate historical research through the ability to identify and use the geographical characteristics of data.
THE GEOGRAPHICAL SOCIETY OF NEW SOUTH WALES

The Geographical Society of New South Wales publishes a range of resources and documents:

- The Australian Geographer is the oldest academic Geography journal in Australia. Three issues are published each year. The site can be accessed at www.tandf.co.uk/journals/carf/00049182.html

Copies are available from Bruce Ryan at cincinnati@ozemail.com.au for $40 plus postage.

The Society also publishes proceedings from conferences it has organised, a quarterly Newsletter for its members and conducts Study Tours. See details at www.gsnsw.org.au/publications.htm

Colin Sale who is an experienced and knowledgeable geographer and tour leader will again lead three tours in 2012 to:
- Myanmar, Yunnan and Tibet
- Scandinavia – Denmark, Sweden, Finland and Norway
- Mekong

Further details on the tours at www.gsnsw.org.au/studtours.htm

GEOGRAPHY BOOKS AND JOURNALS

GLOBAL EDUCATION TEACHING RESOURCES

Focus online


Youtube:

- Seeds of Life: July 14, 2011, 3.40min. – www.youtube.com/user/AusAIDvideo. Foreign Minister Kevin Rudd and East Timorese President Jose Ramos-Horta visited a farm in Maliana participating in AusAID’s Seed of Life program.
- Kiribati Education Improvement Program – KEIP: June 2, 2011, 9.58min. – www.youtube.com/user/AusAIDvideo#p/u/2/x1eGbSAEV2M. The young people of Kiribati face a potentially different future in the modern world, and one in which a good education will play a major role. In response for assistance from the Government of Kiribati, Australia in partnership with UNICEF and UNESCO, is supporting a ten year education reform program.
- Samoa – Health: April 27, 2011, 2.15min. – www.youtube.com/user/AusAIDvideo#p/u/5/l6NWI6Hq8vQ. Australian surgeons, supported by the Australian aid program and the Royal Australia College of Surgeons, are treating patients and training local surgeons in Samoa.
- Tuvalu – Climate Change Adaptation: April 4, 2011, 2.24min. – www.youtube.com/user/AusAIDvideo#p/u/11/OPOJEB0rTCo. Australia has increased the reliability of, and access to, clean water for 85% of residents on the main island of Funafuti. AusAID installed 607 water tanks and improved roof and gutter systems of households to capture more fresh water.

AusAID news

20 July 2011: Australia gave a further $30 million to countries in the Horn of Africa affected by one of the worst droughts in 60 years – www.ausaid.gov.au/hottopics/topic.cfm?ID=1484_6285_7702_7966_6121&From=HT
NEW RESOURCES: Non government organisations

World Vision Australia

Get Connected Issue 9 – Global Inequalities

The resource answers key questions: Why is global inequality important? What are the physical and human factors in global inequality? What is the world doing about global inequality?


Oxfam Australia

Sneaky Business

Sneaky Business is an interactive educational website that aims to increase student’s awareness about human rights in the global manufacturing industry. Students learn about working conditions in different countries by participating in a virtual march in support of footwear workers’ rights.

There is also: DVD – From the Factory Floor; Fact Cards; and Unfair Factory Game

Resources available at www.oxfam.org.au/explore/education/education-resources; and www.oxfam.org.au/explore/workers-rights/resources-for-students

Global Education – Developing Global Citizens

The Developing Global Citizens DVD is designed to assist students to acquire the knowledge, skills and values necessary to become active global citizens. It integrates global perspectives into units of work commonly undertaken in schools and promotes active learning about complex global and environmental issues.

Primary units:
• Our homes
• Food for all?
• A world of clothes
• Water and sanitation
• Peace building

Secondary units:
• Reconciliation
• Generating electricity
• The Millennium Goals
• Going global
• Responsible tourism

Support materials on the DVD include interactive multimedia resources, images and student activity sheets. There is also a film profiling global education through simulation games, role-plays, whole school activities and community interaction.

Copies of this resource are available from the Professional Teachers’ Council NSW. Go to www.ptc.nsw.edu.au or phone 02 9564 3322
I'm a Geographer

EXPLORING NEW VISTAS
Why study geography?

Amid all the changes occurring in UK universities, one thing is abundantly clear – geography remains one of the best subjects to study. Whether measured in terms of students’ enjoyment of their course, rates of completion, or employment rates and career paths following graduation, geography ranks in the very top group.

In a recent report entitled ‘Informed Choices’, the 20 leading UK universities rated geography as a ‘facilitating subject’. They see A-level geography as a solid qualification that will help you make good progress into university study – whether you choose to study geography or a different subject at university.

As you think about studying geography at university, there are a number of questions you will be asking:

**Will I be employable?**

Over the past year, the Royal Geographical Society (with IBG) has looked closely at surveys of employers and conducted our own analyses of government data. These all confirm that employers are actively searching for the skills, knowledge and understanding that geography graduates possess.

Employers recognise that geographers can write, undertake research, analyse and visualise data, integrate ideas and work independently and in groups. They also have expert knowledge of many of the most important issues of our time – whether it be climate change, sustainable development, migration, resource security, environmental degradation and social cohesion, or equality. Geographers’ ability to understand these issues from a breadth of different perspectives, and their implications locally and globally, mean that their knowledge and skills are highly sought after in the workplace.

Moreover, in a world where much of our information is now spatially based – from postcodes to sat navs – geographic information science (GIS), which is studied in all geography degrees, has rapidly grown to become an essential tool in business and government, creating even more opportunities for those with geographical skills and knowledge.

**What kind of career would I be able to enter?**

The Society’s careers brochure ‘Going Places with Geography’ (downloadable from www.rgs.org/careers) highlights a wide range of careers and opportunities in which geography graduates flourish. It shows what these jobs entail and the value of geography to them, and when taken together with the profiles contained within the following special supplement, it illustrates the amazing diversity of paths open to geography graduates.

**How do I find out more about choosing a university course and making a successful application?**

Geography is a popular choice at university – across the UK, almost 90 universities offer degree courses in geography. The range of options is large and constantly developing. You can choose from single honours degrees in geography (offered as either a BSc or a BA) or joint degrees if you want to combine geography with, for example, economics, a language or a science such as biology or chemistry. You can also specialise in a particular area of geography, such as geo hazards, climate change, international development, or GIS.

The Society has developed a number of resources to support young geographers, with advice and guidance on progressing to university. Our ‘Study Geography’ web resource (www.studygeography.rgs.org) provides information on university courses, how to apply, guidance on key issues to think through when choosing the best programme of study, and advice on writing a strong application. The site is constantly being updated with key information for students, the latest information on careers and employability, and also updates on new initiatives and opportunities for funding. Do have a look.

**What should I write in my personal statement?**

Entry to university is competitive. Clearly, academic background is vitally important, but universities also want to see evidence of your motivation and passion, so make the most of the opportunities and resources that the Society has to offer. Join us (see www.rgs.org/joinus) and become a Young Geographer; attend lectures and debates or use our online resources, such as 21st Century Challenges, Geography in the News, and Discovering Britain; or draw on our advice about getting the most from a gap year using our online toolkit. And above all, be clear about why you want to study geography.

Dr Rita Gardner, CBE
Director, Royal Geographical Society (with IBG)
Andrew Badham, air-traffic-management specialist

Andrew Badham has come full circle in his long career in aviation. After starting out in air-traffic control, he worked in airport management for 18 years before coming back to air-traffic control again.

After graduating from UCL with a BSc in geography in 1980, Andrew went on to study for a Masters degree at the University of Liverpool. ‘I studied town and transport planning, and obtained the fancy title of master of civic design,’ he says. ‘I did my thesis on planning and design of airports.’ Just nine months later, he landed his dream job as an air traffic control officer (ATCO) with the National Air Traffic Services. ‘My interest in airports then allowed me to move on to management positions at Luton and Glasgow airports. I spent 18 years with the British Airports Authority specialising in airport safety.’

Two years ago Andrew joined the UK Civil Aviation Authority as an air-traffic management specialist, bringing him back into the world of air traffic control. ‘Some of the issues I deal with now are developing air traffic control policies and procedures, unmanned aircraft systems, space tourism and space weather, and more recently, working with other experts in developing airspace procedures for the Olympics,’ he says.

Andrew had a keen interest in aviation from an early age, and knew he wanted to be involved in it in his career. Geography, he says, certainly helped. ‘It has always been said that geographers can do almost anything: it’s a good general degree to have,’ he says. ‘My knowledge of maps, navigation and meteorology helped with becoming an ATCO.’

Geography has now come full circle in Andrew’s family, too: ‘My son has just completed his first year studying geographical information systems at Bath Spa University – so he did listen to something I told him!’

Nick Williams, police officer

Nick Williams completed his Bachelor of Science degree in human geography in 2004 and is now fulfilling a lifelong ambition, working as a police officer. ‘I love the job as it’s vital, unique and extremely varied; a bit like geography,’ he says. ‘It’s different from one day to the next, and you get to meet and help a lot of people. I respond to a variety of calls on a daily basis when people ring 999 in an emergency, or when they have problems in their life.’

Like many geography graduates, Nick cites the field trips as the most enjoyable parts of his degree. He recalls a trip to Dublin: ‘We went to study the culture, both historical and modern. It was probably one of the most enjoyable experiences I have had, and what other course would involve studying the Guinness factory?’

Despite all the Guinness, Nick learnt a lot of valuable lessons from his geography studies. ‘My degree has helped me by giving me a broad skill base to take into my career,’ he says. ‘I’m able to analyse a lot of information quickly and identify patterns and trends that support good decision making. Being able to process information quickly and accurately is a skill I developed on the course and it helps me on a daily basis.’

Nick describes geography as a degree for those who like variety and independence, but points out that it also makes graduates highly employable. ‘It’s such a fantastic subject,’ he says. ‘The emphasis is really on the student to put the work in and do the wider reading. It’s also a subject that’s appealing to employers as it demonstrates versatility.’

Rose-Marie Roberts, trainee geography teacher

Rose-Marie Roberts loves being outdoors, which was one of her reasons for choosing to study geography at university. It’s hardly surprising, then, that field trips were the highlights of her degree – a snowball fight on Mount St Helens is a particularly fond memory, she says. Her studies also inspired her to get involved with other adventurous souls at the University of Exeter: ‘I had a particularly keen involvement with the expedition society, the sailing society and the geography society,’ she says.

After graduating in 2009 with a BSc in geography with environmental management, Rose began teaching environmental education at an outdoors centre that offered inner-city students an experience of the countryside, often for the first time. ‘This allowed me to offer students opportunites to do the fieldwork that I loved when I was at school, and also helped me realise that I loved teaching,’ she says.

This led her to apply for the PGCE for which she’s currently studying, again at Exeter, which she describes as ‘brilliant’. ‘I’ve been very fortunate with my placement schools – they’ve been very positive about my passion for fieldwork, thankfully,’ she says. ‘Everyone has now got used to seeing me running around the school grounds with clipboards and class in tow!’

Rose is now busy applying for teaching jobs, and intends to complete a Masters of Education within the next two years, investigating the advantages of creativity and out-of-class learning. ‘When I selected geography, the only real inspiration I had for a career was being outside,’ she admits. ‘The process of completing my degree focused my interests and showed me that sharing my knowledge about the environment with young people is something I truly enjoy. To have the opportunity to do it as a career is ultimately a thank you to skills I acquired during my degree.’
Christopher P Baker, adventurer, travel writer and photographer, USA and South America

Before he went to university at UCL in the 1970s, Christopher Baker hadn’t set foot outside of England. Geography introduced him, quite literally, to the world, he says. ‘In 1975, I participated in a university field-study programme to the Moroccan Sahara, driving through France and Spain to get there,’ he says. ‘The experience sparked a passion for travel, adventure and discovery.’

Although he envisioned a career as a political journalist after studying journalism in California, he began working within the adventure-travel industry and soon became a professional travel writer and photographer. He has written guidebooks to the Caribbean and Central America, and is regarded as an expert on Cuba. He’s currently writing a novel and planning a TV travel show.

‘I don’t see my profession as a job,’ he says. ‘It’s my vocation, and an expression of who I am. To earn a living travelling to far-flung places and writing about my experiences combines two of my passions.’

One of the elements Christopher loves about his profession is the ability it gives him to shape his professional life to his interests and whims. In 1996, he shipped his BMW motorcycle to Cuba and spent three months riding the island end to end, resulting in the publication of a travel memoir, he says. ‘Studying geography helped to fuel my fascination with the world. It has also given me the fundamentals of a broad worldly understanding that infuses my writing. For example, most recently, I researched and wrote a book about the best scenic drives in California, in which I was able to explain the processes that have shaped the magnificent landscape, from the dunes of the Mojave Desert to the glacier-carved valleys of Yosemite.’

‘For Christopher, geography forms a perfect connection between the sciences and the arts. But most importantly, it opens the eyes and the mind to a world of possibilities.’

Beth Knowles, activism coordinator, Oxfam

Born and bred in the Cheshire countryside, Beth Knowles graduated from the University of Liverpool with a BA in geography two years ago. After interning with the British Red Cross, she became an activism coordinator for Oxfam. ‘This involves supporting Oxfam’s activist and university group network across the north of England to campaign on Oxfam’s main issues,’ she explains.

‘I’m so lucky to be able to channel the energy I have for fighting injustice and working for positive change into my day-to-day work,’ she continues. ‘I honestly love my job, as every day I work with Oxfam activists who are incredibly passionate and enthusiastic about changing the world for the better.’

Beth says her degree has helped her to understand the issues that underlie world poverty – why it exists and how it can be overcome – and she believes that having this understanding is vital to a career in the international-development sector. ‘In my role as a campaigner, the political awareness I gained from my degree is essential, especially understanding the political reasons behind why countries are either developed or developing,’ she says.

‘The thing that Beth enjoyed most about studying geography was learning why places, politics and people are the way they are,’ she says. ‘A field trip to Berlin and modules on the fight against fascism and shaping of democracy in South America were fascinating, and still help me to understand the world today,’ she says. ‘I also loved being constantly surprised at just how much geography covers. There’s a running joke at work that I always have the answer to every “why is that?” question. I don’t, but when I do, I always say that it’s because I’m a geographer.’
CAREERS  I'm a Geographer

Jess Keeling, future transport logistics manager

Jess Keeling chose to study geography out of sheer passion for the subject. 'It’s much more than a mere subject – a passion, a pleasure, a way of thinking and perceiving the world around me,' she enthuses. 'With geography you learn to approach things holistically, merging the present with history, idealism with realism, society with the physical environment – it gives you a very critical and nuanced perspective.'

Jess began her geography studies at Oxford but transferred to the University of Reading when the workload became too much for her as a stressed-out single mother. Since gaining a BSc in human geography, she has completed a Masters in spatial development and analysis at the University of Luxembourg with a heavy focus on cross-border cooperation. I spent half a year in Belgrade, Serbia, doing an internship as part of my Masters degree, and did my thesis on EU-funded cross-border cooperation programmes in Kosovo,' she says.

Having just completed a major house renovation project, her next move is into transport logistics. With an online course under her belt, she's now looking for a job. 'Logistics is a very practical, job-friendly subtopic of geography, and it combines my passion for geography with the exciting real world of trade and business,' she says.

What Jess really enjoys about geography is its breadth. 'Geography is so broad that everybody can find something in which to specialise, be it politics, international relations, social issues, science, economics, maths, computing, transport, planning… But careers apart, geography must surely be the most pleasurable subject in the world – it’s just so damned interesting.'

Patrick Hearne, helicopter pilot

'I've wanted to be a military pilot for as long as I can remember,' says Yorkshire lad Patrick Hearne. Patrick is now living his dream. As a helicopter pilot flying the Merlin Battlefield Support Helicopter, he gets to travel all over the world. 'It can be very hard work and pretty unpredictable, but that's part of the attraction – it never stops challenging me and there's always something new to learn. As a global politics and technology change, we often find ourselves at the forefront of both arenas, doing things that ten years ago we would never have imagined,' he says. Patrick graduated with a BSc in geography from the University of Birmingham in 2001. After spending a couple of years doing charit- akiwork, a ski season and working in the renewable energy and energy conservation department of Wiltshire Wildlife Trust, he joined the RAF.

'Studying topics such as geopolitics, foreign cultures, history and ethics as part of my geography degree now affords Patrick a deeper understanding of the areas in which he finds himself, such as the Middle East. 'I often find myself in situations where something I learnt ten years ago and haven't touched since suddenly becomes relevant again,' he says. 'More specific skills that I still use today are the study of meteorology, remote imaging and satellite systems, and in-depth understanding of the physical environment, such as topography.'

Making groundbreaking discoveries in his dissertation was an especially enjoyable part of his studies. 'Working on my dissertation was very interesting as it resulted in the discovery of evidence of human habitation in ancient Turkey of which we were previously unaware,' he says.

Patrick would recommend geography to anyone. 'A geography graduate is very well rounded and possesses a broad skill set, with an ability to analyse situations from many different angles,' he says.

Colin Lovell, head of land use planning, Transport for London

Colin Lovell uses the geographical knowledge he gained at university to advise the mayor of London. Colin heads the land-use-planning team at Transport for London, advising the mayor on the transport issues he has to consider when considering planning applications for large developments in the city. 'My geographical knowledge is critical to analysing the spatial impact of decisions on major developments such as the reuse of Battersea power station or Tottenham Hotspur’s proposed stadium in north London,' he says.

Most of Colin's work is high profile, making for a challenging but interesting job in which no two days are the same. 'The job is very exciting because we are working to ensure London maintains its role as a major but liveable world city with a high quality of life, where people can move around without congestion or poor air quality,' he says. 'I'm very privileged to have this job, and I believe my degree in geography set me on the right path all those years ago.'

Colin specialised in urban geography and planning in his degree, graduating from UCL in 1975, before completing a Masters degree in environmental planning. The geographical knowledge that he gained during his studies has inspired him throughout his life, he says.

What Colin loves about geography is its relevance to a diverse range of current issues. 'Just open the pages of any newspaper and you'll see many articles with geographical components: the need for housing, proposals for new sports stadia, the decline of certain species, conflicts over resources, climate change,' he says. This is why he chose to study the subject and would recommend others do the same. 'If you're interested in the world in which we live, geography helps you make sense of it all.'
Jamie Sterry, experiential-marketing account manager

For Watford-born Jamie Sterry, geography seemed like the logical choice when deciding on a degree, as it opened doors to a wider world of careers. ‘Unless you’re planning on being a doctor or something, most people don’t really know what they want to do at that age,’ he says. ‘Geography is a broad subject that opens people’s eyes, helping to develop interests in more specialist fields once we have a better feel for what we want out of life.’

Taking a geography degree meant that Jamie could study everything from the effects of pollution on coral reefs to how the universe was formed and the human form evolved. ‘Learning about the history of ourselves and our planet can be very enlightening, and helps to give us a good perspective on life and the world around us,’ he says.

Highlights of Jamie’s time at the University of Edinburgh were studying coral reefs in Jamaica and doing groundbreaking fieldwork in Greece, but ultimately, it was the human elements that inspired him the most. ‘It was learning about the human elements that inspired me the most. He now works for a large marketing agency in the events and experiential department. ‘You have to be involved in a creative way to connect with them through a live experience,’ he explains. ‘The job is great because every project is different. It’s a great challenge to continually strive to create something original and memorable.’

The links between geography and advertising may not be immediately obvious, but Jamie has found that his degree helped him gain a sense of perspective that is valuable in his work. ‘Studying human geography has helped me to understand human behaviour and, on some level, human psychology and community trends,’ he says. ‘These traits help in the world of marketing as they give us an insight into what consumers like and what they’re most likely to respond to.’

Miriam Kennett, CEO and founder, Green Economics Institute

Miriam Kennett was in her late 40s and working to support her family when she began her geography degree, having worked in engineering for 30 years. ‘I always had a yen to change the world – and felt that something wasn’t working in the mainstream dialogue,’ she says.

Deciding that she would take matters into her own hands, Miriam retrained. ‘I looked for a holistic and interdisciplinary degree, geography included social theory and the physical world as well as economics, so it had all the drivers I needed,’ she explains.

After graduating from the University of Oxford’s school of geography with an MSc in environmental change and management, Miriam went on to create a whole new discipline, which she dubbed green economics, founding the Green Economics Institute and an academic journal, The International Journal of Green Economics.

‘She describes green economics as a geographer’s eye-view of the world. It’s about the complex mesh of social and environmental justice together – you can’t have one without the other,’ she says. ‘It aims to prevent poverty, not just mitigate it; to prevent further destruction, climate change and biodiversity loss.’

Since graduating in 1999, Miriam has published more than 100 book chapters, academic papers and articles, and is enrolled on a PhD-by-publication course. The BBC has even made a programme about her life and work.

‘It’s amazing – I never imagined this would happen,’ she says. ‘The skills I learnt as a geographer completely changed my life and have actually changed the course of economics history. If you want to change the world, choose a subject that helps you understand how it works in all its facets – human and natural – geography does just that.’

Rob Sharpe, GIS industry manager

Rob Sharpe chose geography because he wasn’t sure which career path to follow. ‘I was told that a geography degree would provide me with a skill set that would open up diverse opportunities,’ he says. ‘This has certainly been the case – friends I studied with are now working in accountancy, banking, law, computer programming, the environmental sector and GIS. One is even a BBC weatherman.‘

After graduating from the University of Sheffield, Rob worked for the Ordnance Survey on a graduate programme before moving on to his current position at Esri UK, the leading provider of GIS software. ‘I manage a team of GIS consultants who work across business sectors to understand business processes,’ he explains. ‘Every day is different. I can be working to understand the challenges a defence customer is facing one day, the Environment Agency the next and an insurance company after that.’

Studying geography allowed Rob to indulge his love of the outdoors, so field trips to the Peak District and southern Spain were the most enjoyable aspects of the course. But these trips have proved to be valuable in his career, too. ‘During field studies and other group work, I was able to learn about how I best operate in a team environment,’ he says. Management and leadership of the team is a daily learning curve, but the friends I worked with at university certainly helped me on my way in this area.’

‘Rob would love to study geography again, and would encourage anybody with an interest to do so, too. ‘You will develop a unique set of skills that can be applied within the workplace,’ he says. ‘The business world needs people with geographical skills and the ability to think spatially. The ability to think about problems in an analytical and geographical way provides a different business insight.’
**John Sutton, water resources engineer, Pacific islands**

After graduating with a BSc in geography from the University of Birmingham in 2007, John Sutton wasn’t sure what he wanted to do with his degree. He was interested in environmental sciences, and rivers in particular had grabbed his attention during his studies, so he decided to study for an MSc in river environment management, again at Birmingham. It turned out to be a defining decision; he is now working as a water resources engineer in the Republic of Kiribati, a small Pacific island nation, formerly known as the (British) Gilbert Islands.

‘The Kiribati Adaptation Project is a development project funded by the World Bank, and relates to improving water-resources infrastructure to help adapt to climate change, such as improving drought resilience,’ John explains.

He currently manages three construction contracts with local contractors, overseeing construction of the designs provided by the project. ‘I was heavily involved in the design work and specifying the works, so overseeing construction to see a project through is fantastic – it provides a real sense of satisfaction,’ he says. ‘Providing water for a school or a community building, or a whole island, makes all the hard work worthwhile.’

In his free time on the island, John gets to snorkel, surf, and ‘generally mess around on the lagoon, or even dance in the occasional Maneaba (traditional Kiribati ceremonial hall) covered in flour!’ Working in such an exotic location isn’t without its challenges; however, he once got stranded 300 kilometres from any other land for two weeks, on Banaba, an outer island.

Despite being so far away from home, John is still informed by his studies in Birmingham. ‘I probably use some skills I gained from my time at Birmingham every day,’ he says. ‘It provided me with the necessary analytical and problem-solving skills to find pragmatic solutions to problems relating to natural processes.’

**Michael Furey, founder of a renewable energy organisation, Australia**

Michael Furey only graduated last year but he’s already making waves. Initially focusing his studies on rivers, he soon realised that climate change needed some ‘serious attention.’ ‘I was lucky enough to be sent to Australia for a conference on climate change during my time at Birmingham University,’ he says. ‘I spent two weeks with a highly engaged group of young people from universities in the Universities 21 Network. After that, I realised that getting the human world on to a sustainable system would be an awesome challenge to take on.’

Michael has now taken this challenge into his own hands. After working on the Youth Advisory Panel for the Department of Energy and Climate Change, and undertaking placements with renewable energy companies in the USA, he’s now involved full time in Global Sunrise – an initiative he founded that focuses on supporting existing sustainable development projects, empowering them to fulfil their renewable-energy potential.

‘Our energy future is entirely up for grabs; working in the renewable energy industry right now is extremely exciting,’ Michael says. ‘And he’s planning to be the leading light for the industry in the future. I intend to bring about a paradigm shift to 100 per cent renewable energy within the next ten years, and to play my part in empowering the renewable-energy generation.’

According to Michael, his geography degree provided an excellent understanding of the complex and intertwined systems that dictate the environmental and sociopolitical games that we see throughout the world. ‘Would he recommend it to others? Absolutely – it’s awesome. You get to learn about this planet, how it works, how humans interact with it and those who live on it. Err, can I do my three years again please?’

**Sabrina Chesterman, independent environmental consultant, Africa**

Sabrina Chesterman was determined to be a travelling doctor in Africa when she was younger, but her passion for the environment got the better of her. ‘I now work as an independent consultant, specialising in climate change, ecosystem services and environmental management, across east and southern Africa,’ she says.

Sabrina worked in a number of roles before going solo, but it was a geography field trip that sparked her interest. ‘A field trip working on capturing indigenous and local knowledge helped me find my absolute passion – which essentially involves trying to engage simple and pragmatic solutions to an array of environmental challenges – using the knowledge on the ground and trying to integrate this into sustainable local and national policies,’ she says. ‘I realised I wanted to be a link, and use my love of, and fascination with, the complexities of Africa, its geographical turbulence and its social dynamics to try to solve the environmental issues it’s facing.’

The degree that Sabrina gained from the University of Oxford’s school of geography in 2009 has been instrumental in shaping her career, particularly in making the link between the physical and human environments. ‘The focus on population growth models in my degree has also been key – rural-to-urban migration and population growth are two of the biggest challenges we face in the world I do,’ she says. ‘What I learnt in my degree has aided me in many aspects of my work.’

Sabrina describes her work as continually dynamic and challenging, but she loves her job. ‘Problems in Africa are complex and can be overwhelming, but the innovation and capacity make it such an exciting place to be working.’
GEOGRAPHY FIELDWORK COMPETITION

The Geography Teachers’ Association of NSW (GTA NSW) organises an annual competition for students and schools to foster an enthusiasm for Geography through engagement and rewards. The emphasis of the competition is fieldwork and the gathering of primary data as part of authentic research in geography.

The competition is open to all secondary schools, both members and non-members of GTA NSW. All the categories of the competition are based on the research action plan outlined in the syllabus on page 17 of the Years 7–10 Geography syllabus. The steps of this research plan have also been applied to the senior Geography course for the purposes of this competition and fit neatly with the Senior Geography Project.

NATURE OF THE COMPETITIONS

1. The GTA Fieldwork and Visual Presentation Competition (Years 7–9)
   - choose a relevant topic
   - undertake fieldwork to gather primary data
   - support fieldwork with secondary data if required
   - analyse gathered data
   - present research findings as a visual presentation (digital or poster)

2. The Global Education Research (Fieldwork) Competition (Years 7–12)
   Three categories: Stage 4, Stage 5, Stage 6
   - choose a relevant global geography topic
   - undertake research (may include fieldwork)
   - analyse data gathered
   - present research findings in a digital form
   - propose individual or group action in response to findings

3. The Dr Don Biddle Issues in Australian Environments Fieldwork Competition (Year 10 only)
   - undertake research into a relevant issue in NSW, using fieldwork to gather primary data
   - support fieldwork with secondary data if required
   - analyse data gathered
   - present research findings
   - propose individual or group action in response to findings
4. The Brock Rowe Senior Geography Project Fieldwork Competition (Year 11 only)
   - undertake a Senior Geography Project, using fieldwork to gather primary data
   - support fieldwork with secondary data if required
   - analyse data gathered
   - present research findings
   - propose individual or group action in response to findings

5. The Water for Life Fieldwork Competition (Years 7–10)
   - undertake research into a relevant water issue in NSW, using fieldwork to gather primary data
   - support fieldwork with secondary data if required
   - analyse data gathered
   - present research findings
   - propose individual or group action in response to findings

6. The Dr Maurine Goldston-Morris Civic and Citizenship Awards
   There will be Civics and Citizenship Awards available for entries that demonstrate action has occurred at either the individual or group level, as a result of the research/fieldwork activity. Awards may be allocated to the best action taken in Stages 4, 5 and 6.

7. The Dr Maurine Goldston-Morris Teacher Awards
   These will be allocated to teachers for outstanding involvement in the Geography Fieldwork Competition during 2011.
ENTRIES

GTA Member schools – $3.30 per entry (incl GST)
Non-member schools – $6.60 per entry (incl GST)

Each school can submit up to FOUR (4) entries in each section.

Final date for entries to be received – Monday 19 December 2011.

All entries MUST have an Entry Form (see over page) fully completed and securely attached to be considered. Make sure the correct section is indicated on the entry form.

Entries should be sent or delivered to:
GTA NSW Office
Block B, Leichhardt Public School grounds
Corner Norton and Marion Streets
101 – 105 Norton St, Leichhardt 2040

Enquiries via email to Carmel Logalbo, carmel.logalbo@ptc.nsw.edu.au
All packages should be clearly marked as Geography Fieldwork Competition.

Entries may be in a book or loose leaves (with reinforced rings), mounted on cardboard (limit 2 sheets of 65 x 55cm), PowerPoint presentation (maximum slide number 20) or a webpage. No models will be accepted.

All entries will be available for collection at the end of the award ceremony. GTA NSW is unable to return uncollected entries to schools.

SCHOOL REGISTRATION AND PAYMENT

Teachers will need to obtain the School Registration and Payment Form from the GTA NSW website: www.gtansw.org.au. This form must be completed for the full set of student entries being submitted from the school. Payment for ALL student entries must accompany this form. This form and payment must be attached to the set of entries to be eligible for judging.

PRIZES

Prizes are substantial and vary according to section and prize donors. The Civics and Citizenship Awards are major awards.

AWARDS

Each student who submits an entry will receive a Certificate of Commendation.

Awards will be allocated to each section according to criteria. The presentation of awards will be at a special ceremony in February 2012.

Go to: www.gtansw.org.au for student entry forms and school registration
Advice to contributors

1. **Objective:** The *Geography Bulletin* is the quarterly journal of the New South Wales Geography Teachers’ Association, Inc. The role of the *Geography Bulletin* is to disseminate up-to-date geographical information and to widen access to new geographic teaching ideas and methods. Articles of interest to teachers and students of geography in both secondary and tertiary institutions are invited, and contributions of factually correct, informed analyses, and case studies suitable for use in secondary schools are particularly welcomed.

2. **Content:** Articles, not normally exceeding 5000 words (no minimum specification), should be submitted to the Editor at the following address:
PO Box 577, Leichhardt, NSW, 2040

Articles are welcomed from tertiary and secondary teachers, students, business and government representatives. Articles may also be solicited from time to time. Articles submitted will be evaluated according to their ability to meet the objectives outlined above.

3. **Format:** An original on disk plus one hard copy should be submitted. Tables should be on separate pages, one per page, and figures should be clearly drawn, one per page, in black on opaque paper suitable for photographing. Photographs should be on glossy paper, and strong in contrast. An indication should be given in the text of approximate location of tables, figures and photographs. Every illustration needs a caption.

4. **Title:** The title should be short, yet clear and descriptive. The author’s name should appear in full, together with a full title of position held and location of employment.

5. **Covering Letter:** A covering letter, with return forwarding address should accompany all submitted articles. If the manuscript has been submitted to another journal, this should be stated clearly.

6. **Photo of Contributor:** Contributors should enclose a passport-type photograph and a brief biographical statement.

7. **References:** References should follow the conventional author-date format:
     Newcastle: Hunter Valley Press.

8. **Italics** should be indicated by underlining.

9. **Spelling** should follow the *Macquarie Dictionary*, and Australian place names should follow the Geographical Place Names Board for the appropriate state.

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Books for review should be sent to:
Mr John Lewis, Review Editor,
The GTA NSW Office
PO Box 577
Leichhardt NSW 2040

Deadlines for articles and advertising
Summer issue – 1 December
Autumn issue – 1 March
Winter issue – 1 May
Spring issue – 1 August

Notice to Advertisers
‘Geography Bulletin’ welcomes advertisements concerning publications, resources, workshops, etc. relevant to geography education.

- **FULL PAGE** (26 x 18cm) – $368.50
- **SPECIAL ISSUES** $649.00
- **HALF PAGE** (18 x 13cm or 26 x 8.5cm) – $214.50
- **SPECIAL ISSUES** $382.80
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Carmel Logalbo, GTA NSW Office
Telephone: (02) 9564 3322
Fax: (02) 9564 2342
Email: carmel.logalbo@ptc.nsw.edu.au
The Geography Teachers’ Association of New South Wales (GTA) is a not-for-profit, incorporated body that represents the professional interests of Geography teachers in NSW and Geographical Education more generally. The objectives of the Association are to promote the study and teaching of geography in schools by:

- providing professional learning opportunities for teachers of Geography;
- advocating the interests of Geography teachers on matters in the State and National interest;
- providing forums where teachers of Geography and the wider community can exchange views;
- supporting Geographical Education through the development and dissemination of geographical resources; and
- promoting geographical research and fieldwork.

The GTA seeks to address its objectives via a yearly program of activities and events, which include:

- online publication of the quarterly Geography Bulletin a quality, peer-reviewed journal designed to serve the contemporary interests of Geography teachers and students.
- delivering Teacher Professional Learning Workshops and in metropolitan and regional locations, focussing on current issues, including in Global Education, the use of technology in the classroom, research and fieldwork skills.
- conducting an Annual Conference with keynote addresses from leading geographers on contemporary and emerging geographical issues as well as more practical sessions by geographical practitioners.
- hosting School Certificate and Higher School Certificate Reviews for teachers of Geography. These reviews are held in a number of regional areas across the state.

For further information about GTA NSW activities and events go to: www.gtansw.org.au

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**MEMBERSHIP RENEWAL/APPLICATION FORM 2012**

ABN 59 246 850 128 – This form will become a tax invoice when completed, GST included.

*Please select ONE of the following membership options and complete the details*

- **Personal membership $90.00**
  - Title – please tick: [ ] Dr [ ] Mr [ ] Mrs [ ] Ms [ ] Miss [ ] Other: [ ]
  - Surname: [ ]
  - Given Name(s): [ ]
  - Home address: [ ]
  - Postcode: [ ]
  - Phone: [ ] (Mob) [ ] (Home) [ ] (Work)
  - Fax: [ ]
  - Email: [ ]

- **Corporate membership $180.00**
  - Title – please tick: [ ] Head of HSIE [ ] Head Teacher of Social Science [ ] Head Teacher of Geography [ ] Co-ordinator of Geography [ ] Senior Geography Teacher [ ] Librarian
  - School: [ ]
  - School address: [ ]
  - Postcode: [ ]
  - School phone: [ ]
  - School fax: [ ]

- **Concessional membership $40.00**
  - Title – please tick: [ ] Dr [ ] Mr [ ] Mrs [ ] Ms [ ] Miss [ ] Other: [ ]
  - Surname: [ ]
  - Given Name(s): [ ]
  - Home address: [ ]
  - Postcode: [ ]
  - Phone: [ ] (Mob) [ ] (Home) [ ] (Work)
  - Fax: [ ]
  - Email: [ ]

**PAYMENT:**

Membership is for twelve months commencing in January. If payment is made later in the year all back copies of Geography Bulletin will be forwarded. A membership reminder will be sent in December.

*Please make cheques payable to: Geography Teachers’ Association of NSW Inc*

OR

Charge $…………… to my credit card: [ ] Mastercard [ ] Visa
Card Number: [ ]/ [ ]/ [ ]/ [ ]/ [ ]/ [ ]/ [ ]
Expiry: [ ]/ [ ]
Name on card: [ ]
Signature: [ ]

Post this form and your payment to: GTA NSW, PO Box 577 Leichhardt, NSW 2040
EDITORIAL POLICY

Editorial policy attempts to:
- promote material which will assist the study and teaching of geography
- encourage teachers to share their ideas on teaching geography
- provide a means by which teachers can publish articles
- inform readers of developments in geographical education

Articles are sought reflecting research and innovations in teaching practices in schools. From time to time issues of the Bulletin address specific themes.

Referencing
All suitable manuscripts submitted to the Geography Bulletin are subject to the process of review. The authors and contributors alone are responsible for the opinions expressed in their articles and while reasonable checks are made to ensure the accuracy of all statements, neither the editor nor the Geography Teachers' Association of New South Wales Inc accepts responsibility for statements or opinions expressed herein.

Cover photograph: Isnino, 22 builds a shelter on her second night in the world's biggest refugee camp at Dadaab near the Somali border. She uses sticks and branches she cut or dug out of the dirt and covers them with scraps of borrowed cloth and burlap sacks that used to contain food.

Photographer: Jon Warren, World Vision