



In this issue we feature:

- A summary of current issues and activities
- Our view of the use of the term 'sustainable'
- An economist's view of greening the tax system
- Comment on the Ku-ring-gai draft bushfire risk study
- Comment on the shooting of flying foxes
- Comment on the insanity of road widening
- A speech by David Attenborough on population
- A Lester Brown article on the food crisis
- An article on the threat from Myrtle Rust
- News about the Federal Government's sustainable population policy development
- Some Australian Academy of Science questions and answers on climate change

Join us for talks in May and June – see the back page for details

STEP Walks (Check the web site for updates, www.step.org.au)

Sunday, 22 May: Berowra to Mount Kuring-gai

From Berowra Station, we zigzag down into Waratah Gully and enjoy meandering around inlets along the foreshore of Cowan Water, back to Mount Kuring-gai. The focus of the walk will be primarily the scenery! However, some historical, flora and fauna information will also be discussed.

Meet: Meet at Berowra Railway Station at 12:45pm for a 1pm start. If travelling by train, look out for any railway trackwork - in which case travel by bus or car. We start at Berowra Railway Station and finish at Mount Kuring-gai Railway Station

Length: 8.5km

Difficulty: Moderate. The walk covers 8.5km with a steep descent into Waratah Gully and a broad but rocky foreshore walk. The climb out to Mount Kuring-gai is steady and rocky in parts.

Bring: Hat, sunscreen, sturdy footwear, snacks and water. Warm layers or rain wear if weather suggests... Also, binoculars recommended. Tea, coffee and biscuits will be provided at the conclusion of the walk, at the Harwood Avenue trailhead, Mount Kuring-gai.

Book: Please express your interest (so we have an idea of numbers) and direct inquiries to Tim Gastineau-Hills on 9449 2094, 0419 251 586, or e-mail tghills@yahoo.com

Sunday, 19 June: Beecroft – Cheltenham Link Track

The Chilworth and Castle Howard Reserves are remnants of earlier bushland that remains following the building of the Hills M2 Motorway, which was opened to traffic in May 1997. This walk will take us through both reserves which are now part of the Beecroft – Cheltenham Link Track – which has been developed by Hornsby Shire Council with sponsorship from Transurban M2. This is an interesting area of majestic Blackbutt Gully Forrest which shows the impact of urban development on our bushland and the work that has been done to preserve the remaining bushland within a suburb community environment

Meet: Western end of Mary Street Beecroft. Park in Mary or Welham St. (Gregory's Map 98 G10 or Sydney Greater Sydney Map 234 B7). Meet @ 9.45 am.

Length: 4km

Duration: 2 hours estimated

Difficulty: Easy/moderate

Bring: Water and sunscreen. At the end of the walk you may join us for coffee at Beecroft Village

Book: By contacting Robert Bracht at Robert.bracht@hotmail.com or 0422 088 305

Key Issues and Updates

Our President, Barry Tomkinson, has summarised some of what has been happening lately

St Ives Showground and Precinct Lands

STEP members would be aware that we have been part of a long running community consultation process set up by Ku-ring-gai Council (KMC) to help establish a long term plan for the future use of the St Ives Showground area. The Draft Options which emerged from this process were approved by KMC in June 2010. We are advised that KMC have now appointed a consultant to draw up a Plan of Management (PoM) to refine the options and to provide performance measures and means of monitoring these. The PoM is expected to be completed by June 2011.

STEP has been assured by KMC that its concerns about the future level of protection to be offered to the Duffy's Forest vegetation community, as a result of the proposed location of road works and the creation of a wide sealed cycle track system through this sensitive area, have been conveyed to the consultant. In our view, some of the current draft proposals constitute Key Threatening Processes to the Duffy's Forest community. We await the Plan of Management with interest.

Lane Cove National Park

Each National Park in NSW must have a Plan of Management (PoM), which, once approved, sets the legally enforceable policies for that Park. These PoM's have to be updated at regular intervals. The last PoM for Lane Cove National Park (LCNP) was completed in 1998. STEP members would recall that the latest (already delayed) Plan of Management for LCNP was expected to be completed in 2010. We are now informed that it has been further delayed but it is expected it will go out on public exhibition by mid 2011.

STEP will be awaiting the PoM with interest, as we have raised a number of key planning matters with LCNP. These include:

- Future levels of funding for the area, which seems to have suffered a significant reduction in funding available for maintenance and rehabilitation work.
- Track and trail policy. STEP supports well constructed tracks and trails for both walkers and cyclists, but only in appropriate areas as

laid out in our 2010 Position Paper on Bushland Tracks and Trails. Illegal mountain bike trails in sensitive areas of the Park are causing significant damage and an effective policy to deal with these thoughtless riders needs to be developed and enforced.

- Control of nutrients into the bushland. As laid out in the June 2010 edition of this newsletter, STEP believes that there are better ways to deal with the build up of toxic phosphorous levels in our ecosystems, caused by water borne nutrients entering the bushland.

On the positive side, STEP would be hoping that its successful efforts to increase the amount of land designated for Environmental Protection a part of the SAN site redevelopment are further rewarded by the transfer of those lands to the LCNP, so bringing them under the long term control of the Department of the Environment, Climate Change and Water (DECCW).

NSW Sustainable Mountain Biking Strategy

STEP members may recall that in the last edition of STEP Matters there was a report on the October 2010 Nature Conservation Council (NCC) Annual Conference, at which a couple of STEP motions were adopted by the Conference. As a result of the NCC endorsing the STEP Position Paper on Bushland Tracks and Trails at that Conference, the Chairman of NCC, Professor Don White, wrote to the Minister for Climate Change and the Environment, Hon Frank Sartor MP on this matter.

The response from the Minister included the following comments:

"STEP Inc's position paper is being considered as part of the review of submissions received, noting that the paper reflects the views of the NCC. The position paper highlights some of the fundamental principles that the Department uses to identify sites for walking tracks and visitor amenities such as

camping grounds and other accommodation options."

"These principles will also be considered by the Department in finalising the Sustainable Mountain Biking Strategy, including the need for well maintained tracks with good signage and the construction of recreational tracks and trails in degraded or modified natural areas"

What this ultimately all means in practise will only be known when the Department releases its final Sustainable Mountain Biking Strategy later this year.

STEP continues to urge local land managers to be cautious if becoming engaged in planning for possible mountain bike trails in areas that require linking trails to go through and possibly destroy our remaining quality bushland. That will be simply unacceptable.

State Election Candidates Environmental Forum

The recent decision by STEP to partner with the Nature Conservation Council (NCC) of NSW to sponsor a Candidates Environmental Forum for upper North Shore State election candidates was very much in the nature of an experiment. STEP is a determinedly non-political organisation and consequentially every effort was made to invite all known candidates for the seats of Davidson, Hornsby, Ku-ring-gai and Epping.

With the exception of the sitting member in Epping, responses from all candidates were received and in the end a good turn out of nine candidates faced a broad range of questions from the local community, as well as on the issues raised in the NCC

publication *Natural Advantage* (See: <http://www.nccnsw.org.au/campaigns/state-election>). Unfortunately the event received absolutely no coverage whatsoever from our two main local north shore newspapers!

The questions and received responses can be found on the STEP website at www.step.org.au.

Feed back from the seventy or so members of the community who attended the function was very positive but more feedback from members would be appreciated by STEP. Is this the sort of activity you would like STEP to continue to undertake in future?

Clean Up Australia Day

STEP continues to run the Clean Up Australia site at Thornleigh Oval. This site effectively covers the North western entrances to the Lane Cove Valley Park. This year a record number of 26 volunteers from the local community turned up to collect

nearly 150 kilograms of assorted waste. The actual bushland tracks and trails are generally very clean, but surrounding parks and road ways unfortunately show little sign of improvement.

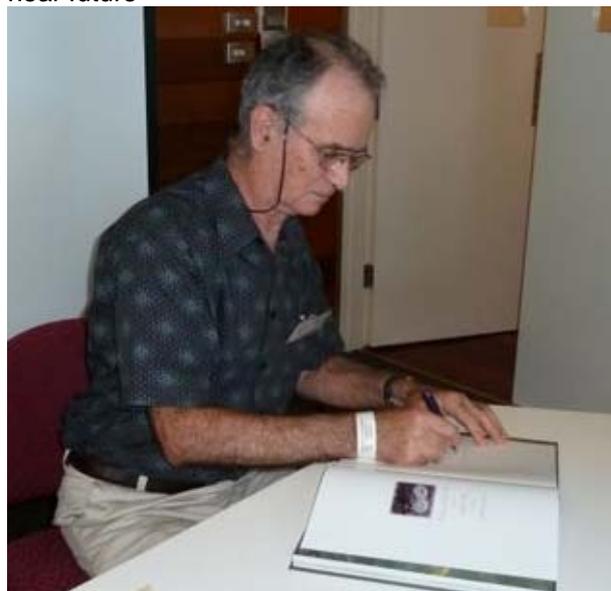
Launch of the STEP Inc Field Guide to Bushland of the Lane Cove Valley

All STEP members were mailed invitations to join with us to officially launch the new John Martyn "*Field Guide to the Bushland of the Lane Cove Valley*". The event took place on 12 March at Jenkins Hall, Lane Cove National Park with the guest speaker being Gary Dunnett, Regional Manger, DECCW, Metropolitan North-east Region.

Gary gave a very informative overview of the different sized reserves that form the NSW national park system, and some of the difficulties which go with the administration of such a varied portfolio. Lane Cove National park is a mid sized city park which faces a distinct set of challenges (see note above) but which features a disproportionately large variety of fauna and flora for its size. Certainly a jewel worth fighting for!

John Martyn himself was able to persuade his GP to allow him to spend a few hours out of rehabilitation after a recent accident. John spoke eloquently about his motivation and some of his experiences in writing his new book. We look

forward to seeing John back to full strength in the near future



John Martyn signing a copy of his book at the launch

STEP Submissions

STEP is fortunate in having a hard working and well-credentialed volunteer Committee who between them cover a broad range of activities. While the walks, talks, newsletter and associated activities all get some coverage, what are often over looked are the numerous detailed submissions that STEP makes to local, State and Federal bodies on a wide range of issues.

Recent submissions include:

- Proposed Residential Flat Development at 1, 1A & 5 Avon Rd, 4 & 8 Beechworth Rd & 1 Arilla Rd, Pymble
- Supplementary Comments: St Ives Showground and Precinct Options
- Curracabundi Wilderness Assessment Submission
- Options for Tree and Vegetation Protection (Hornsby)
- Submission to the Sustainable Population Strategy for Australia Panel

- Golden Jubilee Mountain Bike Proposal
- Draft NSW Biodiversity Strategy 2010-2015
- Browns Forest and Ku-ring-gai Flying Fox Reserve Conservations Agreements.
- Forrester Park off-lease area submission.(Ryde)
- Currently Committee members are working on the Ku-ring-gai Draft Natural Resources Strategies.

These submissions often require hours of on site visits, research and detailed analysis. It is clearly not possible for the Committee to respond to all requests we receive for STEP assistance, which indeed sometimes seem more related to strictly local community concerns than bushland and biodiversity conservation. Copies of our submissions will be listed on our new web site at www.step.org.au

The Orwellian spectre – what do we really mean by ‘sustainable’

The word ‘sustainable’ has become very popular these days and pops up every day in the media. It’s meaning, when applied to environmental science and economics, is the sense that something is enduring, is capable of being maintained at a steady level or better without depleting natural resources.

Far too often, however, ‘sustainable’ is assumed to mean that damage is minimised or even just reduced a bit rather than to mean that we are using the earth’s resources in such a way as to allow all future generations to also enjoy those resources. Because the supply of almost all resources is finite, any policy that involves their depletion cannot be called sustainable. Thus, a policy that merely reduces the rate of plant and animal extinctions cannot be called sustainable. A policy that calls for more and more farmland at the expense of natural areas cannot possibly be called sustainable. A

policy that envisages continuing use of virgin metal and energy resources is not a sustainable policy and a policy that calls for never ending population growth is the antithesis of sustainable.

We must be careful not to fall into the habit of using ‘sustainable’ in an Orwellian manner so that it cloaks the fact that it is really unsustainability that we are talking about. We need honesty rather than exercises in mind control.

So it behoves us to take to task anyone, especially those charged with protecting the environment or who impact upon the environment, who is masking an unsustainable proposal by calling it ‘sustainable’. It’s like the old line that you are either pregnant or you are not and so it is with sustainable – it either is or isn’t – there is no middle ground. People who are trashing the word are probably trashing the environment.

Climate change Q&A

The Australian Academy of Science has published a booklet [The Science of Climate Change: Questions and Answers](http://www.science.org.au/reports/ClimateChange2010-highres.pdf). You can look at it or buy it at <http://www.science.org.au/reports/ClimateChange2010-highres.pdf>. It is very handy for dealing with those sceptics that we all seem to have amongst our family and friends. We shall publish some excerpts. See below and pages 8 and 10.

Q. Could the 20th century warming just be a part of the natural variability of climate?

A. Climate varies naturally on many timescales. Much of this variation arises from the exchange of heat and water between the deep oceans and upper ocean layers (typically the top 50 to 100 metres), which in turn has an impact on the atmosphere. A well-known example is the El Niño oscillation in the tropical Pacific Ocean, which influences temperatures and rainfall patterns throughout the tropical Pacific region and far beyond. Other ocean basins have similar oscillations. Such phenomena typically change the global average temperature by no more than a few tenths of a degree, and only for up to a year or two.

In principle, a natural fluctuation could last for a century. However, evidence going back up to 20 centuries does not show changes in global temperatures resembling those that have taken place in the last 100 years. Moreover, there is compelling evidence that this warming is being caused largely by the enhanced greenhouse effect due to human activities. The response of the climate system to human causation was foreseen by scientists more than a century ago. If this warming continues as now projected, it will soon dwarf any change in the last 10,000 years.

A chance to green our tax system

Paul Burke

They say that nothing is certain but death and taxes. But not many of us like either. While we can do our best to ward off the Grim Reaper, the Grim Tax Collector has the ability to catch up with us whenever we make a purchase or earn some income.

Because the Government needs revenue to fund roads, hospitals and schools, making regular contributions to the tax kitty is something we all learn to live with. Nevertheless, taxes have a large effect on the economy and our everyday decisions. Taxing an activity or transaction almost always means that it will occur less frequently than if it weren't taxed.

Economists often argue that a good tax system is one that can "pluck the goose with a minimum amount of squawking". The Henry Review of the tax system concluded that we aren't plucking the taxation goose as expertly as we could be.

One area that did not receive focus in the Henry Review was carbon pricing. But as recognised by Professor Ross Garnaut in his ongoing update of his 2008 Climate Change Review, the Government's plan to legislate a carbon pricing mechanism for Australia could be coupled with other plans for improving our tax system.

The aim of a carbon price is to ensure that the environmental costs associated with carbon-intensive goods are adequately reflected in their price. Pricing carbon dioxide emissions means that low-carbon goods and activities (such as wind power and driving electric cars) are made cheaper relative to carbon-intensive goods and activities (such as coal power and driving gas-guzzlers).

This change in relative prices will provide an incentive for firms and households to reorientate their investment, production and consumption toward low-carbon goods and services.

Carbon pricing is widely recognised as the most efficient means of achieving any given reduction in greenhouse gas emissions, and would spur investment in green collar industries such as renewable energy.

A carbon price means that reducing emissions will become a profitable activity for all.

Pricing Australia's carbon dioxide emissions won't result in an observable drop in world temperatures anytime soon. But carbon pricing is part of a long-term strategy to steer the global economy away

from the most risky high-carbon development paths. Australia has more to lose from climate change than any other developed country, and so should rightly join the international community's climate change mitigation efforts.

The good news for consumers is that pricing carbon dioxide emissions needn't mean that we will pay more tax overall. A carbon-pricing scheme raises revenue for the Government, which can then be used to reduce other taxes. The Government has a chance to kill two birds with one stone by both encouraging greenhouse emissions cuts and reducing the most annoying taxes that we're currently paying.

Unfortunately, many of the most inefficient taxes – such as insurance duties, payroll tax, and property transfer taxes – are levied by state governments, and so are difficult to include in a Commonwealth tax reform package.

A best-case scenario would involve the Government negotiating an arrangement with the states and territories under which they receive a share of carbon price revenue in exchange for eliminating or reducing the most inefficient state taxes.

The Government could also cut existing federal taxes – such as taxes on income and saving – to ensure that most people won't be any worse off under a carbon price. As the Government has proposed, welfare payments could also be increased so that those in the lower part of the income distribution aren't disadvantaged.

The Opposition's threat to roll back any carbon price reform package is not credible. Increasing income and other taxes and moving to a more expensive "direct action" model of emissions reductions would be an absurd move from a fiscal standpoint. Provided the Government does a good enough job developing and explaining its reforms, any proposal to repeal them should be unpopular. Direct climate action means big government and big taxes.

People are always hesitant about new taxes, and some opposition to carbon pricing is understandable. But if the Government is able to develop and sell a carbon-pricing scheme that is both good for the environment and good for households, it will surely be on a winner.

Dr Paul Burke is a Research Fellow at the Australian National University's Crawford School of Economics & Government. This piece, although initially commissioned by STEP Matters, was first published by the Canberra Times.

Managing Bushfire Risk, Now and into the Future, Ku-ring-gai Draft Study

Ku-ring-gai Council has had out for comment this draft study in advance of preparation of its Principal Local Environmental Plan. Because of recent bad bushfire experiences such as those in Victoria in 2009 and because of the expectation of more dangerous fires as a result of global warming, it certainly makes sense to review the fire risk and to plan what to do about it. The report points out that there are almost 14,000 households within bushfire prone areas. The scope for major loss of life and property is substantial. The draft points out that less than 6% of the municipality's bushland is hazard reduced by burning every year and that this figure is likely to reduce over time as climatic conditions reduce opportunities for burns. Even without restrictions from the weather, Council has not the resources to carry out more hazard reduction by burning than is now being done. No doubt similar conditions exist in neighbouring council areas.

Selective hand clearing

STEP responded to the draft and pointed out, *inter alia*, that there was no mention of hazard reduction by selective hand clearing (SHC). STEP developed this method 30 years ago and has regularly publicised it since. You can access the policy at http://www.step.org.au/downloads/hand_clearing.pdf

Council tries to burn in bushfire prone high-risk areas about every 7 years. The problem is that these are usually quite cool burns and leave standing all the trunks and some branches of the shrubs. Over the next year or two these fall over, entangle one another and form an elevated platform to support falling bark and twigs. This process very quickly produces another fire hazard years before the following burn. The obvious solution is to use SHC to reduce the hazard. Of course this can be a labour intensive procedure. The labour involved, however, is quite minimal if SHC is commenced early before large amounts of dry fuel have collected and before there has been significant regrowth.

You can read our submission on the STEP web site.

The success of the volunteer bush regeneration programme means that the community can be mobilised to carry out much of this work and of course Councils could employ professional regenerators in some cases. All that is needed is ensuring that a site assessment is done for each location and that the physical extent of the area to be treated is established and any threatened species or ecological communities identified and protected. In addition, procedures for dealing with dry material and regrowth that is removed would be established. In the former case dry material can usually be broken up and left on the forest floor. The same can be done with regrowth in the early stages, any more mature plant removal may have to be taken off-site and Councils would normally need to arrange that.

Where there are not already volunteer regenerators in an area there is a golden opportunity to attract more people into the field. People have a desire to protect their homes and so long as Councils ensured that they were trained and then monitored their work this could make a great contribution to fire hazard reduction.

The Tree Preservation Order (TPO) and fire hazard

Unfortunately there is conflict between the aims of fire hazard reduction and the TPO. From the point of view of habitat, carbon uptake, property values, ambience and otherwise we need as many trees as possible. The continuing subdivisions and medium density developments along with tennis court and swimming pools installations mean that we continue to lose trees throughout the North Shore. There is, however, another side to the story. Many trees that are inappropriate from a fire risk point of view are protected by the TPO. This means that only trees within 3 metres of a house can be removed. We have recommended that the TPO be revised to take fire risk into account and that, in particular, the 3 metre restriction be increased to eight metres in fire prone zones.

The STEP Committee

Barry Tomkinson – President
Stephen Procter – Treasurer
Helen Wortham - Secretary

John Burke – Vice president
Andrew Little
Tim Gastineau-Hills
John Martyn

Robin Buchanan
Don Davidson
Jill Green

The newsletter editor for this edition is John Burke who has written everything not otherwise accredited. Send complaints, praise, comments or letters to the editor to secretary@step.org.au. The STEP Committee does not necessarily agree with all opinions put forward in this newsletter.

See the back page for our next two talks

Shooting endangered species may not be the best way to conserve them?

This article by Nick Edards was first published in the March 2011 edition of the Friends of Bats newsletter and we thank him and them for permission to reprint it. This is a classic recital of the way in which the tyranny of small decisions is still cutting a swath through our natural environment. There are still Koalas climbing through the backyards of the new suburbs of Port Macquarie but they too, in that area at least, are headed for oblivion. Our reputation for extinctions can only gather strength as we go our selfish way. The wilderness is indeed being tamed. We can be so proud.

For Julia Gillard's party, Luke Hartsuyker's EPBC (Health and Safety) Amendment Bill 2010 is a bit of an embarrassment. For the grey-headed flying-fox, it's just another step on a gradual but accelerating journey towards what some ecologists consider to be inevitable extinction. If the species is a barometer for the effectiveness of environmental legislation, and the will of state and federal governments to make bold decisions to protect Australia's biodiversity, then it's fair to say that many of our iconic species are, quite simply, doomed.

In 2001, the grey-headed flying-fox was listed as vulnerable under the Commonwealth EPBC Act. Listing is meant to provide sufficient protection to the species being listed that the decline in population can be arrested and, hopefully, reversed. But it hasn't really worked out like that for the grey-headed flying-fox. A recovery plan, detailing the measures necessary to affect a recovery of the species, is supposed to be adopted within 6 years of the species being listed. That deadline passed 4 years ago and yet we still have no recovery plan in place (or even a draft that stakeholders can agree on).

The federal government allows grey-headed flying-foxes to be shot as a method of crop protection. Even the most sceptical anti-environmentalist would have to agree that shooting a threatened species is unlikely to be the best way to aid its recovery. Currently, only NSW actually issues licenses to shoot flying-foxes; Queensland banned the practice in 2009 as it was proven to be cruel and inhumane. Despite calls by both farmers and environmentalists for the NSW Government to provide support for netting, which negates the need for shooting, to be installed at farms that are at risk from flying-foxes, Premier Keneally and Environment Minister Sartor have, until recently, kept their heads down and allowed the shooting, and the decline of the grey-headed flying-fox, to continue unabated. It is a cause for much celebration that both NSW Labor and NSW Liberal parties have, in the lead up to the March 26th state election, made commitments to provide a funding package for farmers in the Sydney/Central Coast areas to net their orchards so as to reduce the need for licenses to be issued. Whichever party is elected, they will be put under significant pressure by both conservation and farming groups to deliver on this promise and to deliver it quickly to bring an end to the needless slaughter.

It's not just politicians who are assisting the grey-headed flying-fox on its way to oblivion. Extreme climatic events play their parts quite effectively too. In early February at least 1,300 grey-headed flying-foxes died in the Wingham Brush colony near Taree as a consequence of the prolonged heat and low humidity, conditions which caused fatal heat stress in a large proportion of this year's juvenile animals. Some 3,000 died under the same circumstances in the Yarra Bend colony in Melbourne last year.

It's now widely accepted that the flying-foxes natural food sources have been badly compromised by excessive rainfall in their seasonal foraging grounds in the last two years. Flying-foxes are nectar and blossom eaters but when the rain is heavy, the nectar gets washed away and the bats have to find alternate food sources or they quite simply starve (or look to commercial orchards as an alternate food source and risk being shot). Many wildlife rescue groups report that the condition of animals coming into their care in the last year or so has been exceptionally poor with many animals 20% below minimum healthy weight.

Habitat loss has forced many flying-foxes to seek shelter in urban environments as these often provide access to more reliable, year around food sources than could be found in rural environments. This adaptation to urban environments brings the flying-foxes into conflict with people and peaceful co-existence is the exception rather than the rule. The Royal Botanic Gardens Sydney is the most well known instance of "not in my backyard" sentiment towards flying-foxes and, in May 2010, then Federal Environment Minister Garrett approved a proposal to disperse the flying-foxes from the Gardens. The approval of the project was challenged in the Federal Court on the grounds that the Minister failed to consider matters that he was obliged to consider. The challenge was dismissed and it would appear that the eviction will go ahead starting in May. The dispersal represents another government sanctioned action which seems to be at odds with the obligation to protect and recover the species. In fact more than being a government sanctioned action, it was an action proposed by a government agency. Botanic Gardens Trust is part of the NSW Department of Environment, Climate Change and Water (DECCW), the very department that administers threatened species legislation in NSW.

Which brings us to Luke Hartsuyker's Bill. The colony of flying-foxes in Maclean has been a

source of conflict for many years and Mr Hartsuyker's Bill seeks to add an amendment to the EPBC Act to exclude the Commonwealth from any decisions relating to the dispersal of flying-foxes from the Maclean area. The reality is that the majority of politicians that voted in favour of the Bill were probably more interested in embarrassing Gillard than they were in supporting Hartsuyker. And, as a result, one of the most significant pieces of Commonwealth environmental legislation has been undermined for cheap political point scoring.

If the Bill passes the Upper House and the Commonwealth are excluded from the decision making process, it will be left to NSW DECCW (the department that both applied for and approved the dispersal of flying-foxes from Royal Botanic

Gardens Sydney) to determine whether a dispersal at Maclean can proceed. The state legislation is far weaker than the Commonwealth EPBC Act and approval by NSW DECCW of a dispersal of flying-foxes from Maclean is almost a given.

Looking forward, we can almost certainly see both federal and state politicians making a real and tangible contribution to the decline and inevitable loss of the grey-headed flying-fox. You don't have to care about flying-foxes to be worried by this trend. If our governments have an inclination to write-off one species, it would be foolish to think that they wouldn't be inclined to do the same for any other species.

The M5 widening, insanity prevails

In the June 2010 edition of *STEP Matters* we explained why the widening of the M2 motorway was a waste of time and money if the objective was too lessen congestion and to improve travel times. We pointed out that all that would happen, as usual, would be for people to change behaviour and take advantage of the additional capacity until congestion again became the limiting factor and people commenced making alternative decisions. One of the popular definitions of insanity is doing the same thing over and over again while always expecting a different outcome. And so it is with our desperate efforts to fix traffic bedlam, in the face of ever-increasing population, by building more roads. We built all the big roads, the F3, M2, M4, and M5 in the full knowledge of population projections and motorist behaviour and yet we were told that they would fix the congestion problems. They haven't, and we are carrying on with more of the same in

the forlorn hope that this time it will be different. It won't be.

Dr Michelle Zeibots of the University of Technology gave exactly the same opinion in the Sydney Morning Herald in February this year. You can access that article at <http://newsstore.smh.com.au/apps/viewDocument.ac?page=1&sy=smh&kw=Expanding+M5&pb=smh&dt=selectRange&dr=3months&so=relevance&sf=headline&rc=10&rm=200&sp=nrm&clsPage=1&docID=SMH110219HD3N11FVCBP>

One factor that will alleviate the congestion problem will be an escalating price of oil. As prices head towards, and then above, \$2 per litre, people will be more reluctant to drive and so will utilise more public transport and carpooling. How disappointed they will be to find that the public transport is woefully inadequate because we have wasted our money building roads.

More climate change Q & A

Q: Has there been a global cooling trend since 1998?

A: No, 1998 was an extremely warm year but the overall warming trend has continued over the past decade. The temperature trend in any given 10-year interval (such as 1 January 1990 to 31 December 1999, or 1 January 1998 to 31 December 2007) can be determined by a standard statistical process called linear regression. Since the 1970s, decadal global temperature trends have consistently demonstrated warming in almost all such 10-year intervals, although the magnitude of the trend varies because of natural climate variability. The decadal temperature trends over recent 10-year intervals remains positive.

Q: Do volcanoes emit more CO₂ than human activities?

A: No. the combines annual emissions from volcanoes on land and under the sea averaged over several decades, are less than 1% of CO₂ emissions in 2009 from fossil fuels, industrial processes and deforestation.

Much more of the science behind these statements is at <http://www.science.org.au/reports/ClimateChange2010-highres.pdf>

'Break the taboo', says Attenborough

This is an edited speech delivered by broadcaster and naturalist Sir David Attenborough to the Royal Society of Arts in London on 10 March 2011. It was published in the April 2011 newsletter of Sustainable Population Australia Inc and we are grateful to their editor, Jenny Goldie, for permission to use it. The speech doesn't say more than this newsletter has said often enough but it says it well and with the authority of a very respected public figure. You can access the whole speech at www.thersa.org.events/vision/vision-videos/sir-david-attenborough

We now realise that the disasters that continue increasingly to afflict the natural world have one element that connects them all - the unprecedented increase in the number of human beings on the



planet. There have been prophets who have warned us of this impending disaster, of course. One of the first was Thomas Malthus. His most important book, *An Essay on the Principle of Population* was published over two hundred years ago in 1798. In it, he argued that the human population would increase inexorably until it was halted by what he termed 'misery and vice'. Today, for some reason, that prophecy seems to be largely ignored, or at any rate, disregarded. It is true that he did not foresee the so-called Green Revolution which greatly increased the amount of food that could be produced in any given area of arable land. But that great advance only delayed things. And there may be other advances in our food producing skills that we ourselves still cannot foresee. But the fundamental truth that Malthus proclaimed remains the truth. There cannot be more people on this earth than can be fed. The population of the world is now growing by nearly 80 million a year. One and a half million a week. A quarter of a million a day. Ten thousand an hour. All these people, in this country and worldwide, rich or poor, need and deserve food, water, energy and space. Will they be able to get it? I don't know. I hope so. But the Government's Chief Scientist and the last President of the Royal Society have both referred to the approaching 'perfect storm' of population growth, climate change and peak oil production, leading inexorably to more and more insecurity in the supply of food, water and energy.

Consider food. Very few of us here, I suspect have ever experienced real hunger. All of us who have travelled in poor countries have met people for whom hunger is a daily background ache in their lives. There are about a billion such people today – that is four times as many as the entire human population of this planet a mere two thousand years ago at the time of Christ.

Climate change tops the environmental agenda at present. We all know that every additional person will need to use some carbon energy, if only firewood for cooking and will therefore create more carbon dioxide, though of course a rich person will produce vastly more than a poor one. Yet not a word of it appeared in the voluminous documents emerging from the Copenhagen and Cancun Climate Summits.

Why this strange silence? I meet no one who privately disagrees that population growth is a problem. No one – except flat-earthers – can deny that the planet is finite. We can all see it in that beautiful picture of our earth taken from the Apollo mission. So why does hardly anyone say so publicly? There seems to be some bizarre taboo around the subject. "It's not quite nice, not PC, possibly even racist to mention it." And this taboo doesn't just inhibit politicians and civil servants who attend the big conferences. It even affects the people who claim to care most passionately about a sustainable and prosperous future for our children: the environmental and developmental non-government organisations. Yet their silence implies that their admirable goals can be achieved regardless of how many people there are in the world or the UK, even though they all know that they can't.

I simply don't understand it. It is all getting too serious for such fastidious niceties. It remains an obvious and brutal fact that on a finite planet human population will quite definitely stop at some point. And that can only happen in one of two ways. It can happen sooner, by fewer human births - in a word by contraception. This is the humane way, the powerful option which allows all of us to deal with the problem, if we collectively choose to do so. The alternative is an increased death rate – the way which all other creatures must suffer, through famine or disease or predation.

The sooner we stabilise our numbers, the sooner we stop running up the 'down' escalator. Stop population increase - stop the escalator - and we have some chance of reaching the top. That is to say, a decent life for all. To do that requires

several things. First and foremost it needs a much wider understanding of the problem, and that will not happen while the absurd taboo on discussing it retains such a powerful grip on the minds of so many worthy and intelligent people. Then it needs a change in our culture so that while everyone retains the right to have as many children as they like, they understand that having large families means compounding the problems their children and everyone else's children will face in the future.

It needs action by Governments. In my view all countries should develop a population policy and give it priority. The essential common factor is to make family planning and other reproductive health services freely available to everyone and empower and encourage them to use it, though of course without any kind of coercion. According to the Global Footprint Network, there are already over a hundred countries whose combination of numbers and affluence have already pushed them past the sustainable level. They include almost all developed countries. The UK is one of the worst. There the aim should be to reduce over time both the consumption of natural resources per person and the number of people while, needless to say, using the best technology to help maintain living standards. It is tragic that the only current population policies in developed countries are, perversely, attempting to increase their birth-rate in order to look after the growing number of old people. The notion of ever more old people needing ever more young people, who will in turn grow old and need ever more young people and so on ad infinitum, is an obvious ecological Ponzi scheme.

I am not an economist, nor a sociologist nor a politician, and it is their disciplines that should provide the solutions. I am a naturalist. But being one means that I do know something of the factors that keep populations of different species of animals within bounds. I have seen how increasing populations of elephants can devastate their environment until, one year when the rains fail on the already over-grazed land, they die in hundreds.

But we are human beings. We have ways of escaping such brutalities. We have medicines that prevent our children from dying of disease. We have developed ways of growing increasing amounts of food. That has been a huge and continuing advance that started several thousand years ago, a consequence of our intelligence, our increasing skills and our ability to look ahead. But none of these great achievements will be of any avail if we do not control our numbers.

And we can do so. Wherever women have the vote, wherever they are literate, and have the medical facilities to control the number of children they bear, the birth rate falls. All those civilised conditions exist in the southern Indian state of Kerala. The total fertility rate there in 2007 was 1.7 births per woman. In India as a whole it is 2.8 per woman. In Thailand in 2010, it was 1.8 per woman, similar to that in Kerala. But compare that with the Catholic Philippines where it is 3.3.

But what can each of us do – you and I? Well, there is just one thing that I would ask. Break the taboo, in private and in public – as best you can, as you judge right. Until it is broken there is no hope of the action we need. Wherever and whenever we speak of the environment, add a few words to ensure that the population element is not ignored. Make a list of all the environmental and social problems that today afflict us and our poor battered planet, not just the extinction of species and animals and plants, that fifty years ago was the first signs of impending global disaster, but traffic congestion, oil prices, pressure on the health service, the growth of megacities, migration patterns, immigration policies, unemployment, the loss of arable land, desertification, famine, increasingly violent weather, the acidification of the oceans, the collapse of fish stocks, rising sea temperatures, the loss of rain forest. The list goes on and on. But they all share an underlying cause. Every one of these global problems - environmental as well as social - becomes more difficult, and ultimately impossible, to solve with ever more people.

Even more climate change Q & A

Q: If we can't forecast the weather 10 days in advance why should we believe long-term climate forecasts?

A: Weather and climate are not the same: weather is chaotic and unpredictable over times longer than a week or two, whereas climate is the average of weather over time. Therefore, the challenges of predicting weather and climate are very different. Predicting the weather is akin to predicting how a particular eddy will move in a turbulent river: it is possible over short timescales by extrapolating the previous path of the eddy, but eventually the eddy is influenced by neighbouring eddies and currents to the extent that predicting its exact path becomes impossible. This is analogous to the predictive limit for individual weather systems in the atmosphere, which is around 10 days. On the other hand, predicting climate is akin to predicting the flow of the whole river, which requires a consideration of the major forces controlling the river, such as valleys and dams. Projections of climate change over decades to centuries are possible because of our progressively improving understanding of the forces affecting climate, including global warming caused by greenhouse gases.

The great food crisis of 2011

By Lester R. Brown who is President of the Earth Policy Institute and author of [World on the Edge: How to Prevent an Environmental and Economic Collapse](#) (New York: W.W. Norton & Company, 2011) available online at www.earth-policy.org/books/wote. This article beautifully summarises the multiple disasters awaiting the world as we ignore the warning signs.

As the new year begins, the price of wheat is setting an all-time high in the United Kingdom. Food riots are spreading across Algeria. Russia is importing grain to sustain its cattle herds until spring grazing begins. India is wrestling with an 18-percent annual food inflation rate, sparking protests. China is looking abroad for potentially massive quantities of wheat and corn. The Mexican government is buying corn futures to avoid unmanageable tortilla price rises. And on January 5, the U.N. Food and Agricultural organization announced that its food price index for December hit an all-time high.

But whereas in years past, it's been weather that has caused a spike in commodities prices, now it's trends on both sides of the food supply/demand equation that are driving up prices. On the demand side, the culprits are population growth, rising affluence, and the use of grain to fuel cars. On the supply side: soil erosion, aquifer depletion, the loss of cropland to nonfarm uses, the diversion of irrigation water to cities, the plateauing of crop yields in agriculturally advanced countries, and—due to climate change—crop-withering heat waves and melting mountain glaciers and ice sheets. These climate-related trends seem destined to take a far greater toll in the future.

There's at least a glimmer of good news on the demand side: World population growth, which peaked at 2 percent per year around 1970, dropped below 1.2 percent per year in 2010. But because the world population has nearly doubled since 1970, we are still adding 80 million people each year. Tonight, there will be 219,000 additional mouths to feed at the dinner table, and many of them will be greeted with empty plates. Another 219,000 will join us tomorrow night. At some point, this relentless growth begins to tax both the skills of farmers and the limits of the earth's land and water resources.

Beyond population growth, there are now some 3 billion people moving up the food chain, eating greater quantities of grain-intensive livestock and poultry products. The rise in meat, milk, and egg consumption in fast-growing developing countries has no precedent. Total meat consumption in China today is already nearly double that in the United States.

The third major source of demand growth is the use of crops to produce fuel for cars. In the United States, which harvested 416 million tons of grain in 2009, 119 million tons went to ethanol distilleries to produce fuel for cars. That's enough to feed 350 million people for a year. The massive U.S.

investment in ethanol distilleries sets the stage for direct competition between cars and people for the world grain harvest. In Europe, where much of the auto fleet runs on diesel fuel, there is growing demand for plant-based diesel oil, principally from rapeseed and palm oil. This demand for oil-bearing crops is not only reducing the land available to produce food crops in Europe, it is also driving the clearing of rainforests in Indonesia and Malaysia for palm oil plantations.

The combined effect of these three growing demands is stunning: a doubling in the annual growth in world grain consumption from an average of 21 million tons per year in 1990-2005 to 41 million tons per year in 2005-2010. Most of this huge jump is attributable to the [orgy of investment](#) in ethanol distilleries in the United States in 2006-2008.

While the annual demand growth for grain was doubling, new constraints were emerging on the supply side, even as longstanding ones such as soil erosion intensified. An estimated one third of the world's cropland is losing topsoil faster than new soil is forming through natural processes—and thus is losing its inherent productivity. Two huge dust bowls are forming, one across northwest China, western Mongolia, and central Asia; the other in central Africa. Each of these dwarfs the U.S. dust bowl of the 1930s.

Satellite images show a steady flow of dust storms leaving these regions, each one typically carrying millions of tons of precious topsoil. In North China, some 24,000 rural villages have been abandoned or partly depopulated as grasslands have been destroyed by overgrazing and as croplands have been inundated by migrating sand dunes.

In countries with severe soil erosion, such as Mongolia and Lesotho, grain harvests are shrinking as erosion lowers yields and eventually leads to cropland abandonment. The result is spreading hunger and growing dependence on imports. Haiti and North Korea, two countries with severely eroded soils, are chronically dependent on food aid from abroad.

Meanwhile aquifer depletion is fast shrinking the amount of irrigated area in many parts of the world; this relatively recent phenomenon is driven by the large-scale use of mechanical pumps to exploit underground water. Today, half the world's people live in countries where water tables are falling as overpumping depletes aquifers. Once an aquifer is depleted, pumping is necessarily reduced to the rate of recharge unless it is a fossil

(nonreplenishable) aquifer, in which case pumping ends altogether. But sooner or later, falling water tables translate into rising food prices.

Irrigated area is shrinking in the Middle East, notably in Saudi Arabia, Syria, Iraq, and possibly Yemen. In Saudi Arabia, which was totally dependent on a now-depleted fossil aquifer for its wheat self-sufficiency, production is in a freefall. From 2007 to 2010, Saudi wheat production fell by more than two thirds. By 2012, wheat production will likely end entirely, leaving the country totally dependent on imported grain.

The Arab Middle East is the first geographic region where spreading water shortages are shrinking the grain harvest. But the really big water deficits are in India, where the World Bank numbers indicate that 175 million people are being fed with grain that is produced by overpumping. In China, overpumping provides food for some 130 million people. In the United States, the world's other leading grain producer, irrigated area is shrinking in key agricultural states such as California and Texas.

The last decade has witnessed the emergence of yet another constraint on growth in global agricultural productivity: the shrinking backlog of untapped technologies. In some agriculturally advanced countries, farmers are using all available technologies to raise yields. In Japan, the first country to see a sustained rise in grain yield per acre, rice yields have been flat now for 14 years. Rice yields in South Korea and China are now approaching those in Japan. Assuming that farmers in these two countries will face the same constraints as those in Japan, more than a third of the world rice harvest will soon be produced in countries with little potential for further raising rice yields.

A similar situation is emerging with wheat yields in Europe. In France, Germany, and the United Kingdom, wheat yields are no longer rising at all. These three countries together account for roughly one-eighth of the world wheat harvest. Another trend slowing the growth in the world grain harvest is the conversion of cropland to nonfarm uses. Suburban sprawl, industrial construction, and the paving of land for roads, highways, and parking lots are claiming cropland in the Central Valley of California, the Nile River basin in Egypt, and in densely populated countries that are rapidly industrializing, such as China and India. In 2011, new car sales in China are projected to reach 20 million—a record for any country. The U.S. rule of thumb is that for every 5 million cars added to a country's fleet, roughly 1 million acres must be paved to accommodate them. And cropland is often the loser.

Fast-growing cities are also competing with farmers for irrigation water. In areas where all water is being spoken for, such as most countries in the

Middle East, northern China, the southwestern United States, and most of India, diverting water to cities means less irrigation water available for food production. California has lost perhaps a million acres of irrigated land in recent years as farmers have sold huge amounts of water to the thirsty millions in Los Angeles and San Diego.

The rising temperature is also making it more difficult to expand the world grain harvest fast enough to keep up with the record pace of demand. Crop ecologists have their own rule of thumb: For each 1 degree Celsius rise in temperature above the optimum during the growing season, we can expect a 10 percent decline in grain yields. This temperature effect on yields was all too visible in western Russia during the summer of 2010 as the harvest was decimated when temperatures soared far above the norm.

Another emerging trend that threatens food security is the melting of mountain glaciers. This is of particular concern in the Himalayas and on the Tibetan plateau, where the ice melt from glaciers helps sustain not only the major rivers of Asia during the dry season, such as the Indus, Ganges, Mekong, Yangtze, and Yellow rivers, but also the irrigation systems dependent on these rivers. Without this ice melt, the grain harvest would drop precipitously and prices would rise accordingly.

And finally, over the longer term, melting ice sheets in Greenland and West Antarctica, combined with thermal expansion of the oceans, threaten to raise the sea level by up to six feet during this century. Even a three-foot rise would inundate half of the riceland in Bangladesh. It would also put under water much of the Mekong Delta that produces half the rice in Vietnam, the world's number two rice exporter. Altogether there are some 19 other rice-growing river deltas in Asia where harvests would be substantially reduced by a rising sea level.

The current surge in world grain and soybean prices, and in food prices more broadly, is not a temporary phenomenon. We can no longer expect that things will soon return to normal, because in a world with a rapidly changing climate system there is no norm to return to.

The unrest of these past few weeks is just the beginning. It is no longer conflict between heavily armed superpowers, but rather spreading food shortages and rising food prices—and the political turmoil this would lead to—that threatens our global future. Unless governments quickly redefine security and shift expenditures from military uses to investing in climate change mitigation, water efficiency, soil conservation, and population stabilization, the world will in all likelihood be facing a future with both more climate instability and food price volatility. If business as usual continues, food prices will only trend upward.

Myrtle Rust – a looming environmental problem

Ross Rapmund, the Community Nursery & Guided Bushwalks Coordinator at Hornsby Shire Council knows a lot about plants and our environment. Here he brings us up to date on the latest introduced threat to our environment.

Myrtle Rust was first detected in April 2010 at a property on the Central Coast of NSW by Industry and Investment NSW (I & I), it was subsequently discovered in a number of nurseries and cut flower farms as awareness and surveillance expanded. In October 2010 it was discovered in bushland, again, only on the central coast of NSW.

So what is it? Myrtle Rust (*Uredo rangelii*) is a fungal rust similar to Eucalyptus / Guava Rust (*Puccinia psidii*) which is a widespread plant pathogen itself, particularly overseas. These rusts are host specific to the family Myrtaceae. Plants affected by Myrtle Rust have the following symptoms - the tips and the shoot ends are readily covered in masses of bright yellow powdery spores, leaves may be twisted and contorted and older lesions appear dark coloured (from older spores) or they may have a halo of purple coloured tissue around the infection area. Small plants can be killed outright by the pathogen. Myrtle Rust is most active at temperatures above 25 degrees and high humidity. Spores of the pathogen are moved by wind or transported by humans on clothing, vehicles or tools. Plants have been ranked into order of susceptibility being low, moderate and extreme. Currently Myrtle Rust has been confirmed on 68 species of Myrtaceous plants on the eastern seaboard of Australia both on horticultural varieties (16 varieties; many bred from the one species) and 58 species of wild bushland plants of Myrtaceae, many of rainforest origin. In bushland the pathogen appears to favour areas of higher humidity such as creek lines and gullies or swampy areas hence its inclination for rainforest type plants within the Myrtaceae family. It is also a severe threat to the ti-tree oil and the Australian bush food industries where Myrtaceous plants are the main crops.

Management has currently been devolved from the State Government (I & I) on Myrtle Rust after a failed program of outright eradication. Initially there was a quarantine embargo on plant movements placed on the Wyong and Gosford Local Government Areas of the Central Coast as well as



many other Australian States banning plant movements from NSW outright. Unfortunately the pathogen is now widespread from the far south coast

of NSW as far north as Cairns Qld. All quarantine areas in NSW have been revoked whilst interstate plant movements still require certification.

So where does this leave our local area? Management has been delegated to individual land managers by I & I, in most cases this means local councils, NPWS or individual businesses such as plant nurseries. Extensive information is available on the I & I website but there are still a lot of unanswered questions and hypothetical situations, basically because we still do not understand how the pathogen behaves or is likely to behave. As individuals, the onus is on us to practice good plant hygiene, in particular when entering bushland reserves or undertaking works in bushland such as bushcare, this goes hand in hand with the prevention of the spread of Phytophthora, see the website below for detailed hygiene protocols.

In Hornsby Shire Council area we have several confirmed outbreaks particularly within the highly susceptible range of species affected by Myrtle Rust; these include Scrub Turpentine (*Rhodamnia rubescens*) and Broad Leaved Paperbark (*Melaleuca quinquenervia*). Council has initiated a Myrtle Rust Action Plan which includes a control programme for these infected sites and at other uninfected populations of these highly susceptible species in order to keep them free of the pathogen. To date this programme has been working well. As for backyards, it is extremely hard to quantify the level of spread and the media has been reluctant to take up the issue at both a local level and state level in order to broaden the knowledge of the wider community. NPWS has also produced an Interim Management Plan for Myrtle Rust with an emphasis on protecting individual threatened species and endangered ecological communities potentially affected by it as well as on slowing the spread generally in NPWS estate.

Management zones have been established in NSW as either red or green zones by I & I, with red infected and green free of Myrtle Rust. I & I are only interested in updating these zones with new outbreaks in the current green zones or the appearance of Myrtle Rust on new host species.

A National Management Group has been established with \$5 million dollars in funding from the federal government to tackle the issue. This is made up of State and affected industry representatives who are to coordinate a management response.

See the I & I website for further detailed information and a full list of host species-
<http://www.dpi.nsw.gov.au/biosecurity/plant/myrtle-rust>

A Sustainable Population Strategy for Australia, Federal Government Initiative

Constant readers of *STEP Matters* would know that we have been talking about the effect of unbridled population growth on the environment for over 25 years. Our leaders are starting to catch up with us. The Federal Government is seeking to develop a sustainable population policy and to that end has set up a process in the hope of delivering such a policy. A taskforce was established in May 2010 after Tony Burke was appointed Australia's first Minister for Population. His title has since been diluted but it still features that subject. Three advisory panels were established. A Demographic Change and Liveability Panel under the chairmanship of Professor Graeme Hugo, a Productivity and Prosperity Panel under Ms Heather Ridout of the Australian Industry Group, and a Sustainable Development Panel under Bob Carr. Each panel came up with a substantial report. You can access them all at <http://www.environment.gov.au/sustainability/population/panels.html>.

Pr. Hugo's panel came up with a learned treatise that assumed further population growth without being too specific. They did not think that peak oil to be a problem; they thought that we have abundant water and that we need rapid population growth to take advantage of our renewable energy potential. They were out of court on those issues but closer to the mark in saying that *'Put more generally, if Australia's present and future leaders are to deal soberly with the demographic and sustainable population issues raised in this report, special care will need to be taken to ensure that the inevitable debates surrounding them do not descend into political opportunism. Recent events have demonstrated that presently, population policy is far from free of such political calculations.'*

Ms Ridout's panel was the vehicle by which the commercial interests wanting infinite population growth could make their case. Their report is littered to references to 'dynamic', 'optimistic', 'strong and prosperous', 'dynamic, open, innovative and confident society' and so on. The enthusiasm is impressive, the logic less so. They argue that because Australia has done well as population has grown that therefore more population will always be desirable – a bit like arguing that just because one enjoys a couple of glasses of wine, it's always good to drink until you drop! They advocate policies to tempt us into having more children and for developing Northern Australia. There is not the space here for a detailed critique but, in summary, it's a dreadful and selfish report serving only the interests of those companies that feed off growth. It's best use will be in summarising all the pro-growth arguments in one convenient package for future reference.

Bob Carr's report was a much better effort. For instance one of their key messages was, 'A

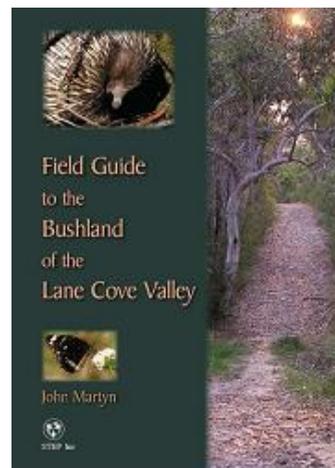
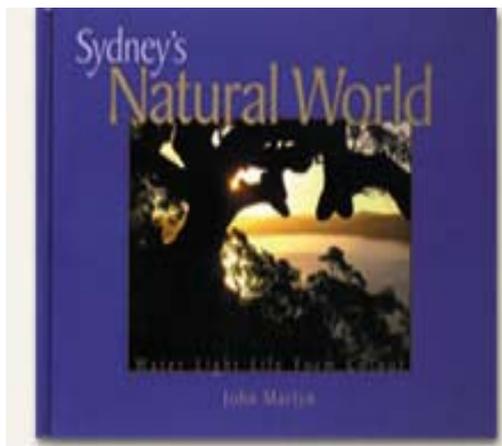
sustainable Australia is one that allows its people to live socially engaged and prosperous lives in a healthy environment. It means meeting the needs of the current population without compromising capacity to meet future needs. There are clear signs of economic, social and environmental stresses in Australian society that would suggest we are not living sustainably now. Business as usual is not an option.' We could hardly have said it better ourselves!

Other Carr panel key points include, *'Indicators of biodiversity loss, water efficiency, and efficiency of land use are required. High population growth (and high immigration) should be conditional on improvements in these indicators. Continued urban encroachment will further harm biodiversity and reduce the environmental sustainability of urban living. Water availability in Australia's dry and variable climate is at risk. A larger population means increased water prices and less water for the environment. A larger population means higher greenhouse emissions and more costly adjustment for Australians to climate change.'* And *'Economic prosperity is possible without high rates of immigration. Population growth increases the size of the economy. It does not make Australian residents significantly better off as measured by GDP per capita (the most accepted measure of living standards). Importantly, population (immigration) growth does not address skill and labour shortages or the changes foreshadowed by an ageing population.'*

The public was invited to respond to the panel reports and to the subject generally. The submissions are being loaded onto the government web site as this is being written and will be able to find them all at

<http://www.environment.gov.au/sustainability/population/consultation/submissions.html>. STEP made a submission that you can see on our web site.

It appears that the next step will be for the drafting of a policy and its adoption by the government later this year. Given the interest being generated in the subject and the economic and political clout of the vested interests, it would be a surprise if the report comes down on the side of the environment. The overwhelming number of submissions seem to be in favour of a small population, however, and as the Carr report says, surveys confirm that more than 50% of Australians don't want a big Australia. So there is some prospect that the big financial interests will not get it all their way. For instance, a reduction in population growth to below 1% pa would rein in the runaway growth of recent times and allow the debate to continue from a more sensible base. It will, however, be a great advance to actually have a population policy we can discuss rather than either refusing to, or being afraid to, discuss the subject.



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Walkers wanted

Our request for walkers to distribute our small brochure advertising the new *Field Guide to the Bushland of the Lane Cove Valley* produced a great response. Many thanks! However Ku-ring-gai – Hornsby and beyond is a big area and we have printed another 5,000 and could always do with more walkers.

If you can help please email secretary@step.org.au with your contact details or ring Barry Tomkinson at 0412 250 595 and we will arrange for you to pick up the brochures.

A sceptical talk – Can civilization survive the next 30 years

Tuesday 10 May, 8 pm, St Andrews Hall, Corner Vernon and Chisholm Streets, Turramurra

Ian Bryce talks to STEP about how current climate change mitigation is failing us.

We are used to hearing about climate change from scientists involved in the field but this talk is from a scientist from other fields but with a sceptical mind. Bound to be fascinating – see you there!

Ian qualified in physics and engineering, and has worked in aircraft and satellite manufacture and launch projects. He now consults in aerospace engineering, and teaches at universities. He is Chief Investigator for Australian Skeptics, which involves assessing the validity of many claims with apparent scientific backup. He works on environmental and ethical policies for the Secular Party, and teaches the new primary ethics.



In this talk, Ian presents evidence that the current efforts to mitigate climate change are mostly ineffective or counterproductive. As long as economic or population growth continues, any technological solution can at best delay collapse by a few years.

The Natural History of Sydney by David Wilks

Tuesday 21 June 8 pm, St Andrews Hall, Corner Vernon and Chisholm Streets, Turramurra

David Wilks is the biodiversity Officer at Ku-ring-gai Council and will present a talk based on his paper in the proceedings of the Royal Zoological Society's "The Natural History of Sydney" which explores the natural history and biological diversity of the Ku-ring-gai Local Government area.



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