

SUSTAINABILITY SPEAKING

No 6. AUTUMN 2012



CONNECT THE DOTS

at 11:00 am, May 5 - PORT BOTANY LOOKOUT
Sir Joseph Banks Park, Banksmeadow

Further information: www.climatedots.org

Across the planet we are experiencing more extreme climate events but because the globe is so big it's hard to see the connections. That's why on May 5 all over the earth people will come together to Connect the Dots. The CSIRO have already identified North Botany Bay as highly vulnerable to climate change. Join the Climate Action Sydney Eastern Suburbs(CASES) in bringing this to wider attention. Meet in the Fremlin Street Carpark, Banksmeadow, at 10.45am.

At some point, airport runways will flood (Sydney Morning Herald Letters 10 April 2012).



Fly into Kingsford Smith airport at a time of high spring tide, or even better during a summer king tide, and observe how close to the taxiway of the third runway is the water level of Botany Bay. It does not take much imagination to envisage the potential impact of higher sea levels. In 2009 a consultant's report for the federal government's Department of Climate Change publication on risks to Australia's coast from rising sea levels, concluded "the airport's proximity to Botany Bay and tidal waterways makes it vulnerable to future sea-level rise and storm surge." What is fairly certain is that the sea level is rising, what is uncertain

is at what rate and when it will achieve a threshold level to impact adversely on airport operations. The elevation of the third runway and its taxiways looks especially vulnerable. If it is forced to suspend arrivals or departures during future high tide inundations then scheduling of this very busy airport will become chaotic. Potential sea level rise may not be the most critical factor in driving decision-makers to a second airport hub but it must be taken into consideration. Planning and construction of a new airport will take a decade or more and by that time the third runway and approaches will either have to be raised or a Thames-like barrier built across the entrance to Botany Bay. Such alternatives have their own costs.

Bruce Thom, former chair, Coasts and Climate Change Council, Vaucluse.

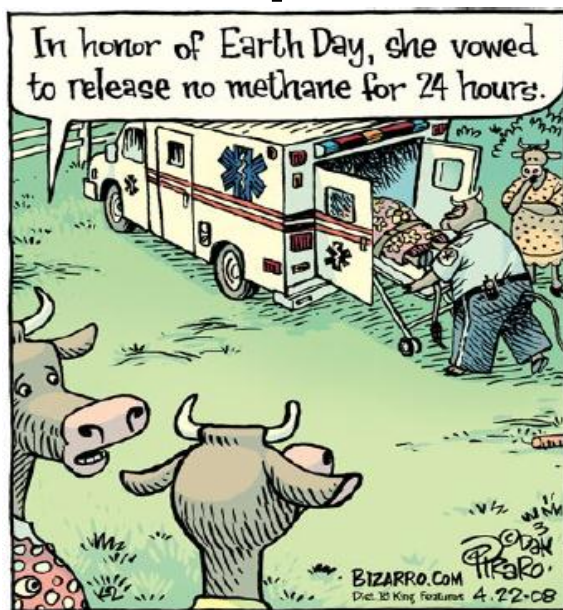
Note: The 2400 long third runway (pictured here) is constructed on 15 million cubic metres of sand dredged from Botany Bay.



Frankly, I'm deeply concerned that internationally, we have not made as much progress as we need to make (on Climate Change).

Rolling Stone interview with President Obama, April 25, 2012)

Globally, meat consumption has increased by 20 per cent in the last decade despite concerns about its environmental impact.



According to the United Nations Food and Agriculture Organization(FAO) there are almost 1.4 billion cattle and 1.1 billion sheep on the planet producing 37% of the total methane generated by human activity, a gas that is 20 times more effective at trapping greenhouse gases than carbon dioxide. 70 per cent of all agricultural land, just under a third of the earth's entire land surface, is used for rearing farm animals. Estimates for the amount of water needed to produce one kilogramme of beef varies between 13,000 litres and 100,000 litres.

RK Pachuari, the chairman of the Intergovernmental Panel on Climate Change(IPCC), found that one hectare of land, producing vegetables, fruit and cereals can feed up to 30 people. The same area, if used to produce meat, could feed between only five and 10.

(Source: Laurie Tuffrey, *Can going vegetarian really help the earth?* *The Ecologist*, 4 January 2012)

CULTURE DISH HAMBURGER



The first-ever culture-dish hamburger is set to be served later this year to a celebrity taster. Mark Post, a physiologist at the University of Maastricht in the Netherlands, said the project is being funded by an anonymous investor who is interested in

"life-transforming technologies" and believes lab-grown meat could revolutionize the food industry. Post hopes the tasting will be a media event, with experimental chef Heston Blumenthal cooking the burger. The patty will be much like a regular quarter-pounder — but with one big difference: this one will be created by growing bovine stem cells in a vat, transforming them into thousands of thin layers of beef muscle cells, mincing them into tiny pieces, then combining the bits with lab-grown animal fat to form a lump of meat the size of a golf ball. The pinkish-yellowish strips of muscle cells are only about an inch (3 centimeters) long, a half-inch (1.5 centimeter) wide, and so thin (1 millimeter) that they're semi-transparent. Post feels confident that his team can perfect the process by October, but full commercialization could take another 10 years or more.

If the researchers' assumptions are correct, growing meat in the lab could reduce the energy expenditure by about 40 percent. Lab-grown meat has also won the endorsement of People for the Ethical Treatment of Animals(PETA).

Green manufacturing jobs for Australia's regions and cities.



(Photo: Launch of Earthworker Cooperative last year)

The United Nations has declared 2012 the International Year of Cooperatives in recognition of their contribution to socio-economic development and in particular their track record in impacting poverty reduction, employment generation and social integration.

Earthworker Cooperative is a social enterprise with a mission to create solutions for transitioning Australia's workforce into a low carbon economy. It aims to create jobs, build social capital and protect the environment in local communities through the manufacture of renewable energy infrastructure. The cooperative factories are to be established in regional areas where large proportions of the workforce are dependent on carbon intensive industries/energy generation. The Earthworker Cooperative's objective is to raise 100,000 Australians to contribute to the establishment of the first Cooperative in Morwell, Victoria via the purchase of factory equipment through a \$20 membership fee. More information www.earthworkercooperative.com

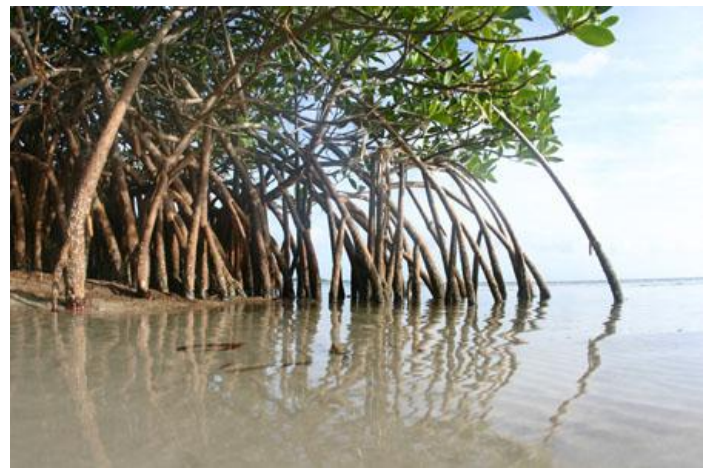
TOP 17 CO₂ EMITTING COUNTRIES

United States Department of Energy's Carbon Dioxide Information Analysis Center released preliminary 2010 estimates for a limited number of countries. The following table is listing annual CO₂ emissions estimates (in thousands of CO₂ metric tonnes) from these estimates for top emitting countries, along with a list of emissions per person (in tons of CO₂ per year).

Country	CO ₂ emissions	Population	Emission / Person
World	33,508,901	6,852,472,823	4.9
China	8,240,958	1,339,724,852	6.2
United States	5,492,170	312,793,000	17.6
India	2,069,738	1,210,193,422	1.7
Russia	1,688,688	142,946,800	11.8
Japan	1,138,432	128,056,026	8.9
Germany	762,543	81,799,600	9.3
Iran	574,667	75,330,000	7.6
South Korea	563,126	48,875,000	11.5
Canada	518,475	34,685,000	14.9
Saudi Arabia	493,726	27,136,977	18.2
United Kingdom	493,158	62,262,000	7.9
Indonesia	476,557	237,424,363	2.0
Mexico	466,131	112,322,757	4.1
South Africa	451,839	50,586,757	8.9
Brazil	419 537	190,732,694	2.2
Italy	407 924	60,681,514	6.7
Australia	365 513	22,794,166	16.0
France	362 556	65,821,885	5.5

BLUE CARBON

The ocean is the cornerstone of our life-support system. It covers over 70 percent of our planet and generates the oxygen in every second breath we take; it has cushioned the blow of climate change by absorbing 25–30 percent of all anthropogenic



carbon emissions and 80 percent of the heat added to the global system; it regulates our weather and provides food for billions of people. The ocean is priceless.

Out of all the biological carbon captured in the world, over half(55%) is captured by marine living organisms – and hence called blue carbon. Some marine habitats are particularly good at this job. Mangroves, seagrass and saltmarshes might only cover 0.5% of the sea bed but account for more than 50% of all carbon storage in ocean sediments (Nellemann et al., 2009) Further information Stockholm Environment Institute <http://www.sei-international.org>

The Climate Commission

The Climate Commission was established to provide Australians with an independent source of information about the science of climate change, the economics of the carbon price and international action being taken to reduce greenhouse gas emissions.

The Commission comprises Professors Tim Flannery, Lesley Hughes and Will Steffen along with Dr Susannah Elliott, Mr Gerry Hueston and Mr Roger Beale. Last year the Commission conducted public forums in Mackay, Ipswich, Brisbane, Port Macquarie, Sydney, Tamworth, Armidale Illawarra, Adelaide, Playford, Bunbury, Perth, Alice Springs, Melbourne, La Trobe Valley, Geelong, Canberra, Launceston and Hobart.

The next Public Forum will be held at the Parramatta RSL, Cnr Macquarie and O'Connell Street, Parramatta, 6.30-8.00pm **Tuesday 15th May**. Bookings at www.climatecommission.gov.au

Germany's 37 million households will soon be paying half as much on their annual electricity bills as Australian households. An average German household pays just \$1060, or about \$88 a month, for electricity to run their computers, lights and other household appliances, while an Australian household in 2013 [will be paying](#) a whopping \$2117, or \$176 a month, according to the Australian Energy Market Commission (AEMC). (Source: Climate Spectator February 2012)

"Orica will have to do an enormous amount in order to restore public confidence in NSW."



Premier 'Farrell quoted in the Sydney Morning Herald last December. With the new year the tough talk has disappeared. Two weeks ago the Government

approved Orica's development of the 18ha Southlands floodplain site in Banksmeadow. There are major traffic, flooding and contamination issues and on top of this there is the very important matter of **environmental justice**. Orica has yet to clean up the Botany Aquifer and it estimates that this can't be achieved for over 100 years. Orica can't predict what access may be required for the cleanup but the Department of Planning is prepared to allow them to fill and cap half the site for heavy traffic generating warehousing.

Orica will pay developer contributions of \$3,543,214.00 to Botany Council in accordance with an offer dated 26 July 2011, for the provision of infrastructure within the Botany Bay local government area.

La Perouse Market Gardens - 'between the tin shed and the brick house'

(Desmond Ong) is part of the Sydney HEAD ON Photo Festival.

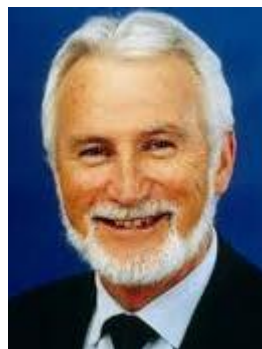


Official Opening: Thursday 3rd May - 6pm to 8pm

At Leichhardt Library exhibition space, Italian Forum, 23 Norton Street Leichardt **May 1 – May 27**

This series of ongoing work provides a glimpse into the life of the Chinese market gardeners and their cultural landscape.

ENVIRONMENTAL PROTECTION AUTHORITY (EPA) BOARD



The NSW Government has announced the new EPA Board with Mr Barry Buffier appointed Chairperson - referred to as the Community's Champion by Acting Chief Environmental Regulator, Mark Gifford, and as the Community's Advocate by Minister Parker. Under the new Terms of Reference the Board will be required each year to provide:

- (a) an assessment of the success of the Authority in reducing risks to human health and in preventing the degradation of the environment and whether the level of environmental protection achieved by the Authority is satisfactory in comparison with other Australian jurisdictions,
- (b) an assessment of the performance by those industries regulated by the Authority in reducing risks to human health and in preventing the degradation of the environment, and the impact that those industries have on the environment.

Mr Buffier was formerly Director-General of Trade and Investment. His fellow board members are environmental scientist, Julie Savet; solicitor Christine Covington; Managing Director and Head of Global Banking Australia and New Zealand for Citigroup, Chris Knoblanche; and former CEO of CSR, Alec Brennan.

The EPA is responsible for the regulation of air emissions, contaminated sites, dangerous goods and hazardous materials, noise, pesticides, forestry activities, waste and water quality and state of environment reporting. The objectives of the EPA Board are to:

- (a) determine the policies and long-term strategic plans of the Authority,
- (b) oversee the effective, efficient and economical management of the Authority,
- (c) develop and make available for public information, guidelines relating to the institution of criminal and related proceedings,
- (d) determine whether the Authority should institute proceedings for serious environment protection offences referred to in s.17 of the Act,
- (e) advise the Minister on any matter relating to the protection of the environment (at the request of the Minister or on its own initiative).

Lynda Newnam

April 2012