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Free

# Village Eco News

A publication of Bangalow Land and Rivercare.

## Explaining Adani: why would a billionaire persist with a mine that will probably lose money?

Edited from an article by John Quiggin, Professor School of Economics, University Queensland

By mid-June, if everything goes as expected, Adani Australia will receive the final environmental approvals for its proposed Carmichael coal mine and rail line development. Newspaper reports based on briefings from Adani suggest that, once the approvals are in place, the company could begin digging “within days”.

The Queensland government has approved Adani’s plan to protect a rare bird, the Black Throated Finch, pictured below, apparently leaving it with just final regulatory hurdle: approval for its plan to manage groundwater.

But several big obstacles remain. Even after governments are out of the way, it will have to deal with markets and companies that aren’t keen on the project.



### Obstacles aplenty

There’s the problem of access to Aurizon’s rail line. Adani originally planned to build its own 388km railway from the Galilee Basin to its coal terminal at Abbot Point.

However, Adani now plans to build only 200km of track, before connecting to the existing Goonyella line owned by the rail freight company Aurizon who is legally obliged to negotiate with Adani, but has shown itself to be in no hurry to reach a deal.

Faced with rejection of funding by every major bank in the world, Adani announced it would fund the project its self. But now insurers, including nearly all the big European firms and Australia’s own QBE, are saying the same sort of thing as the financiers. Without insurance the project can’t proceed, and the pool of potential insurers is shrinking all the time.

But the most fundamental problem may lie within the Adani group itself. The A\$2 billion required for the project will ultimately come, in large measure, from chairman Gautam Adani’s own pocket. Worth A\$7 billion, he can certainly afford to pay if he chooses to but it would represent a huge bet on the long-term future of coal-fired electricity, at very bad odds.

A recent analysis by David Fickling for Bloomberg estimated a price of US\$16 per tonne. see over page

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### Landcare Working Bee

Our team of friendly volunteers work every Saturday morning, weather permitting from 8.30am to 10.30am rotating through the various sites around Bangalow. All welcome.

That's an 8% rate of return on \$US2 billion, before considering overheads and depreciation. The mine would need a long life.

When the start of construction was re-announced last November, it was suggested the coal might be shipped by 2021. With six months' delay and the insurance problem noted already, 2022 seems like the earliest possible date.

By 2030, with the project still in its relatively early stages, most developed countries will have stopped using coal-fired power. The others will be moving fast in that direction. For example the USA in the last three years has closed 50 coal-fired power stations, and almost certainly never build another.

To sum up, unless current trends change dramatically, the economic life of the Carmichael mine is unlikely to be no more than a decade – nowhere near enough to recover a A\$2 billion investment. Perhaps Gautam Adani is willing to lose a large share of his wealth simply to show he can't be pushed around. Alternatively, as on numerous previous occasions, his promises of an imminent start to work may be baseless.

Most worrying, is that the political pressure to deliver the promised Adani jobs may lead to a large infusion of public money, all of which will be lost.

The A\$900 million Adani sought from the Northern Australia Infrastructure Facility in 2017 would be enough to keep the project going for a couple of years. It now appears that a similar sum might be sought from the Export Finance and Insurance Corporation. We can only wait and see.



**Gautam Adani**



## **The New Camphor Laurel – Golden Rain Tree**

*Koelrueteria elegans subsp formosana*

**By Liz Gander**

The Golden Rain Tree, pictured above, is a native of Taiwan and was introduced as a garden tree but it has escaped and is fast becoming a weed of significance here on the north coast.

It has been identified as an environmental weed in southern QLD since the 1990's spreading to north eastern NSW where Lismore is a hotspot. It is on the alert list for NT and WA. It is also making a nuisance of itself in eastern USA, Japan, Hawaii and Guam.

Just like the Camphor Laurel the seeds are prolific and germinates very rapidly. Ripe seeds germinates in 6 to 8 days. It has the ability to colonise an area very quickly out competing the native species. It is extremely hardy tolerating drought, frost, pollution, heat, wet soils as well as a range of soil types and situations, it will even take salt spray.

It poses a threat to agricultural lands and colonizes roadsides very quickly. It's not known how the seed disperses. Mostly they seem to colonize close to the parent plant suggesting that they don't travel far but seedlings can occasionally appear far from the parent tree suggesting birds as the vector.

Prevention is the best cure for this one so if you have one in your garden please consider removing the tree and replacing it with a similar size native species I suggest Tulipwood, Tuckeroo or Cheese Tree. Please - help us remove this weed.



**The size of 14 grams of red meat**

## **Proposed Planetary Health Diet**

The proposed planetary diet is the result of a three-year project commissioned by The Lancet health journal and involved 37 specialists from 16 countries including Australia. The Commission has proposed the global average intake of foods such as sugar should be cut by 50 per cent and meat to 14g a day while consumption of nuts, fruits, vegetables and legumes should double.

If the world followed the Planetary Health Diet, the researchers said, more than 11 million premature deaths could be prevented each year, while greenhouse gas emissions would be cut and more land, water and biodiversity would be preserved.

“The food we eat and how we produce it determines the health of people and the planet, and we are currently getting this seriously wrong,” said Tim Lang, a professor at Britain’s University of London who co-led the research. “We need a significant overhaul, changing the global food system on a scale not seen before.”

Statistics show unhealthy diets currently cause more deaths and diseases worldwide than unsafe sex, alcohol, drug and tobacco use combined.

Australians have one of the largest dietary environmental footprints per capita in the world, with emissions more than 200 per cent higher than comparable regions, driven by meat consumption of 95 kilograms of meat a year on average, markedly more than the OECD average of 69 kilograms, and we create about 3.1 million tonnes of edible food waste a year - not a record to be proud boast about.

## **Are water crystals bad for the environment?**

**By Michelle Ryan, Lecturer Environmental Health, Western Sydney University**

With changing rainfall patterns, drought and an increasing average temperature in Australia many people are looking for ways to save water in their garden and adding water crystals to your soil appears to be a good solution. But what do we really know about water crystals and are they bad for the environment?

Well, you can put your mind at ease: water crystals are not bad for the environment despite concern to the contrary. Water crystals are tiny super-absorbent polymers, pictured below. They are added to increase the water holding capacity of the soil. Water crystals act like a sponge, binding water molecules with the molecule chains in the crystals (with what’s technically known as cross-link bonding). This makes the crystal swell, creating a three-dimensional gel network up to 300 times its original size, absorbing water and nutrients.

Over 5-6 years water crystals slowly degrade, releasing the absorbed water into the root zone of the plant and wetting the soil. The plants still use the same amount of water, but instead of the water flowing through to the bottom of the pot and into the saucer and evaporating, or through to the bottom of the garden bed, the water crystals hold onto the water in the root zone of the plant.

The use of water crystals has no adverse impact on soil microbe populations, which we need for a good healthy soil. If used as directed there is no risk to human health, however it is always good practice to wear gloves while handling any chemical product.





## Scientists Train Dogs to Sniff out Endangered Insects

Three very good dogs named Bayar, above, Judd and Sasha have sniffed out the endangered Alpine Stonefly, one of the smallest animals a dog has been trained to successfully detect in its natural habitat. In alpine areas there is a pressing need for innovative methods to better reveal the distribution and abundance of threatened insects.

Alpine regions rely on cool temperatures, and since climate change will bring warmer weather and lower rainfalls, iconic insects like the Alpine Stonefly, which lives in the alpine freshwater system, will struggle to survive and while insects might not be appealing to everyone, they are extremely important for ecosystem function.

Traditional survey detection methods are often labour intensive, and hard-to-find species provide limited information. La Trobe's Anthrozoology Research Group Dog Laboratory in Bendigo, Victoria have been training a pool of local community volunteers and their dogs in conservation detection.

The dogs were trained to memorise the odour of the Alpine Stonefly providing the potential to generate a lot of meaningful data on this threatened species with a possible wider application across Australia.

Source: *The Conversation*



## The Little Things

By Liz Gander

Clothes pegs, yes more insidious little bits of plastic. My mum was very fussy about pegs when we were kids but then she did grow up in the depression years and not the throw away world we live in today.

The pegs were only wooden back then and had to come off the line into a bucket every time the washing came in because as we know the weather destroyed them. But now most people use plastic, if they use a clothes at line at all, and the weather is even tougher on them. But there is another choice, stainless steel.

While not the cheapest to buy initially in the long run they will save you money as they will outlast plastic and wooden pegs by a mile, so long that they will be handed down to the next generation. They are rust and mould resistant and also recyclable if they happen to have an encounter with the lawnmower.

Do a search on the internet as there are a few styles to choose from. The ones I bought recently are packed by House With No Steps so you can also support a worthwhile charity.

Go to [www.stainlesssteelpegs.com](http://www.stainlesssteelpegs.com)

### *Village Eco News*

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