



Darwin – Jo Vandermark

Please be advised that this transcript was produced from a video recording. As such, the quality and accuracy of this transcript cannot be guaranteed and the Inquiry is not liable for any errors.

31 July 2017

Darwin Convention Centre, Darwin

Speakers: Jo Vandermark

Jo Vandermark: My name is Jo Vandermark, and I wish to make a presentation to this inquiry as a private individual, a resident of Darwin, and a voter. I'm not a representative of any particular organisational group, although I belong to many. Since coming north in 1993, I have worked in 29 remote communities in the Kimberley and the Northern Territory. At this stage, I would like to pay my respects not only to the Larakia but to aboriginal people across the territory, and trust that this inquiry will ensure that they are listened to, that their opinions are respected, and that they participate in the process deciding the momentous issue which the inquiry has to face.

I attended Dr. Hawke's Darwin hearings, where I was encouraged by the highly articulate and logical questions and comments with the participants, most of whom were opposed to fracking. I was alarmed when I learnt that the process of mining unconventional gas had been recommended subject to the creation of a robust regulatory regime. Consequently, I would like first to address what seems to be the critical issue of regulation and compliance.

A regulation is only as good as its enforcement. Without enforcement, regulations are worthless. Over and over again, in Dr. Hawke's executive summary, the recommendations emphasise the crucial importance of regulation. Examples are New Zealand — Dr. Wright concluded that fracking can be managed effectively provided that operational practises are implemented and enforced through regulation. The UK report — the health, safety, and environmental risks associated with hydraulic fracturing as a means to extract shale gas can be managed in the UK, as long as operational best practises are implemented and enforced through regulation.

The Australian Council of Learned Academies stated, "Nonetheless, it is important that the shale gas industry takes full account of possible adverse impacts on the landscape, soils, flora and fauna, groundwater and surface water, the atmosphere, and on human health in order to address people's concerns. This will require improved baseline studies against which to measure the change and to compare natural change and change resulting from industry activities," et cetera et cetera. These will need to be carefully assessed and managed using best practise. On chemical and water management, Contamination of aquifers and surface water can result from



chemical spillage. These are unlikely to occur if best practise is followed, but regulations need to be in place and enforced to help to ensure this.

Finally, in relation to monitoring and regulation, that report concludes, "Monitoring of shale gas production and impacts is likely to undertaken by petroleum companies as part of their normal operations, but in order to win community confidence, truly independent monitoring will need to be undertaken by government or other agencies and/or credible research bodies. This will require a robust regulatory regime" et cetera et cetera.

Accordingly, Dr. Hawke's is consistent with these assessment. Recommendation, "This inquiry's major recommendation, consistent with other Australian and international reviews is that the environmental risks associated with hydraulic fracturing can be managed effectively subject to the creation of a robust regulatory regime. The inquiry recommends that a cabinet subcommittee be formed, chaired by the deputy chief minister, and comprising ministers whose portfolios cover Lands, Planning and the Environment, Land Resource Management, Mines and Energy, Primary Industry, and Fisheries to oversee the work required for the NT to set the standard for a best practise regulatory regime."

So, why am I concerned? My concern is whether Northern Territory governments have the capacity, the will, and the financial resources to implement best practise and enforce regulation. How can I judge this? It seems to me that I have only past and current government practise as a base for answering this question. So may I quote three examples. One, Rapid Creek markets. This is an example of failure to enforce even a simple regulation. The regulations demand that all stall holders must display prices on their produce, just as supermarkets are required to do. I have notified authorities on several times of the absence of prices on many stalls, but nothing has changed. As of yesterday, upwards of 50% of produce was unpriced. The failure to enforce such a simple and easily monitored regulation does not inspire confidence.

Example two. Crocodile trophy hunting proposed regulation. In this case, the proposed regulation is ludicrously detailed, laying out the position of a crocodile distance from the water, angle of particular area of the body where it can be targeted, etc. etc. Why I quote this is that to me it's suggests stringent and detailed regulations which do not have the slightest chance of being enforced, but instead, serve the purpose of trying to make trophy hunting more acceptable to the opponents. In actual fact, Kakadu National Park doesn't even have the resources to deal with the current illegal shooting.

The third example, by far the most important and relevant, is MacArthur River Mine, which illustrates the complete and utter failure to enforce regulations, to the extent that the mine is now labelled as an unmitigated disaster. As an opponent of the diversion of the river, I'm well acquainted with the promises of stringent environmental regulations and claims of best practise. What a travesty. Reactive iron sulphide rock on the mine's waste



dump has been burning for three years. Glencore, the operator of McArthur River Mine, grossly underestimated the amount of potentially acid forming material, claiming it's 2011 EIS, but the proportion was 12% of waste rock. It was later found to be 88%.

Health authorities have told residents not to eat more than two small portions of fish per week, but it was not until 18 months after detection that local residents were informed that there's pollution, and of course invertebrates and cattle have now registered unacceptable levels of lead. Most disturbing of all, Glencore has now admitted that the mine may have to be monitored for several hundred years. In addition, they have rejected putting the waste back into the pit as too expensive. Instead, intending to leave hundreds of millions of tonnes of reactive waste above ground, despite warnings of dire future consequences for the community and the environment. Extraordinarily, the government has even kept the amount of Glencore's environment bond secret from the electorate.

In the light of such continuing failure, how can any Territorian maintain trust in the government's competence, will, or capacity to monitor and enforce the robust regulation of fracking which is the condition of Dr. Hawke's approval and recommendation for fracking to proceed. Regulation without independent monitoring and strict compliance supervision is worthless. Of course, this is in the context of Australia's estimated 70,000 abandoned mines leaking toxins into the environment ... of course the mining industry prefers the term legacy mines.

Wouldn't it be a good idea to fix up these mining disasters before embarking on another round of destruction? But it is not solely the NT's failure to enforce regulation that erodes public trust. National factors also bear responsibility the banning of political donations to parties and governments to enable decisions to be made on their merits rather than be purchased by multinationals, corporations, or individuals, is an urgently needed reform. A national commission against corruption would assist this.

The politicisation of science, manifested in the emasculation of formerly eminent scientific organisations like the CSIRO, the Great Barrier Reef Authority, and the Climate Council, the removal of experienced top scientists, the muffling of scientific evidence-based advice in favour of politically acceptable opinions must be reversed if public confidence is to be regained. The elevation of fundraising applied science to the neglect of basic research also requires a rethink.

The most blatant example, recent example of political decision-making subverting science must be the New South Wales' government's unexplained reduction of over 20 compliance officers to four individuals charged with the implementation oversight of the Murry Darling Plan.

How can we trust governments to enforce regulation? A good start might be the restoration of the concept of the triple bottom line in government accounting, whereby environmental and social costs are given equal



weighting with economic gains, so often short-lived. Jobs, jobs, jobs. The development of fracking across the Territory is frequently promoted as a source of employment. Unfortunately this claim is based more on wishful thinking than reality. The reality is that gas projects are capital intensive rather than labour intensive, and in the future, that number will be further reduced as mining becomes robotic.

A perfect example of this is the proposed Adani coal mine. While the PM and treasurer are quoting 10,000 or 12,000 jobs be created, upped by Senator Canavan to 14,000 jobs, under oath in Indian Court, Mr. Adani stated there would be up to 1200 jobs in the construction stage, following which the mine would be 95% robotic. Mining is not a huge employer. ABS Statistics estimated that the NT oil and gas companies employ half the number of people employed in the arts and recreation services.

Then there is the displacement of jobs. Not only are the inflated employment predictions a feature of mining industries, but the consequent displacement of jobs and industries is seldom calculated. There appears to be no monitoring of the potential loss of agriculture, fishing, and tourism, or the limitations unconventional gas mining will place on the new industries of the 21st century, like renewable energy innovation and the amazing bio-mimicry industry.

As for individual employment, CSIRO's Queensland study found the gas industry was sometimes found to reduce employment. For every 10 additional people employed in coal seam gas, 18 agricultural jobs were lost. Professional service jobs increased, but there was no additional retail or manufacturing jobs.

There are many more figures, but what these figures indicate is that simplistic employment predictions should be subjected to more thorough analysis than currently practised.

The economic arguments. Reports from the independent Australia Institute question much of the conventional wisdom, e.g., claims like the recent pronouncement of federal treasurer that the lifting of the moratorium on fracking will solve the NT's economic problems, a claim that ignores the fact that total mining and gas royalties contribute just 3% of NT's government revenue.

To return for a moment to the McArthur River Mine, no royalties were paid to the government in 2015. Recently, the giant Chevron has been revealed as paying no tax in Australia. It's just too easy for multinational companies to arrange their accounts to the benefit of the parent company overseas and the commensurate disadvantage of the host country. Hence, the Queensland government's disappointment at receiving less than 10% of their anticipated income from gas mining.

The Institute claims that the development of unconventional gas in the NT will only confound Australia's problems of household and industrial steeply



rising prices and declining tax revenue and shareholder value through the further flooding of the market. NT gas extraction is likely to be very high cost, and global markets look set for a period of abundant supply.

Also to be taken into economic account are the investment costs the government had required infrastructure provision. Detailed, authoritative economic studies, thank goodness, would be provided not by me, but by the Australia Institute.

Of particular concern to me are the environment impacts. I am a representative of Australians who have migrated north for environmental reasons. To have access to areas where it's still possible to witness natural processes, vegetation, wildlife, relatively undisturbed — with 'relatively' underlined. With an unregulated world population explosion, could there be any more valuable resource to the territory in the future? At a time when biodiversity is in rapid decline in the Northern Territory, to what extent will this loss of natural capital be exacerbated by the introduction of a water-hungry industry?

Australia, as you know, is the most arid inhabited continent in the world. But water depletion is not the only threat. Pollution of rivers and streams, even of aquifers, would have catastrophic consequences to all forms of our unique wildlife and distinctive vegetation.

Where are the baseline studies for measuring the impact of fracking on our natural inheritance? Money for basic research on wildlife has been so scant in recent years that every bush blitz finds, discovers new species, and even the most common species have been only superficially studied. We simply do not yet have the essential species information to enable accurate monitoring of the impact of unconventional gas extraction.

If ever there were a case for adhering to the precautionary principle, surely this is one such occasion. Why the rush? I haven't even touched on many of the fracking concerns, but from even my cursory examination, it is clear that the current knowledge of the consequences of such an irreversible modification and dramatic disruption to the Territory environment requires a vastly extended time frame for adequate analysis.

Just as many steps need to be taken before any NT government can be accorded the trust of the community that it has the capacity, the will, and the financial resources to implement best practise and enforce regulation. Thank you.

Hon. Justice
Rachel Pepper:

Thank you very much. Do we have some questions? Yes, Dr. Jones.

Dr David Jones:

You were very tough upfront on this issue of regulation, transparent regulation, enforcement and so on. Do you see any way, for example, in the NT where this might be enabled or is it just so far gone that ...



Jo Vandermark: Well no, I think ... I think that ... the first, I really do believe the first step that has to be taken is with regard to donations to political parties and governments. Because ... and that applies to all Australia of course. I'm very pleased that the Territory is considering setting up a... it's own [inaudible]. Although, you know, one hears all the rumours that it's going to be like the Environmental Protection Authority which had the weakest power in Australia, which doesn't give one great confidence, but you know, we live in hope. We just have to believe this hope of changing things.

Dr David Jones: Are you aware of what's happening in Queensland with the vanguard of increased regulation and enforcement that's going on as a recognition of this lag?

Jo Vandermark: No, not really. I'm in my 80th year and this is the first time I've appeared before an inquiry, and as I'm still in employment and belong to many associations and have continuous guests, I haven't had quite the amount of time to prepare for this that I would have preferred.

Hon. Justice
Rachel Pepper: You can always ... if you wish to submit additional material, please feel free to do so. There's no time limit on that.

Jo Vandermark: Thank you. I also want to resubmit this because in my haste this morning, I sent it through to work to be printed off, and forgot to put it into a PDF form, so the layout is all over the place.

Hon. Justice
Rachel Pepper: Alright that's absolutely fine, that's no problem. Yes, Prof. Hart?

Professor
Barry Hart AM: Can I just continue that....

Jo Vandermark: Yes.

Professor
Barry Hart AM: You've made a pretty persuasive case for lack of trust in ... and so have others, in the past, so do you have any ... apart from the fact there needs to be transparency and the like, do you have any suggestions to us as to what type of monitoring assessment organisation would help to restore your trust?

Jo Vandermark: Well, the fact that it has to be independent of government and of political influence, which is quite difficult because one of my concerns as I said is this is the politicisation of science, and this in combination with a number of factors such as changes in the public service, again so people no longer have the security of tenure, and the pressure on public servants, and of course, since the war on science and the emasculation of our top institutions and all that's happened, that has really made it very difficult for scientists to give ... in fact sometimes have been prohibited from speaking out and giving the facts. It is very complex I know because those issues which are generally summed up as the war on science have to be attacked ... have to be



- Professor
Barry Hart AM: Defended.
- Jo Vandermark: Yes. They have to be changed so that we have a much greater level of independence and security for both advisory bodies for scientists, for commissions inquiry ... The people in my ... slight diversion, but my daughter who has ... where she first completed her PhD in the management of innovation, worked for a consultancy, and I think the pressure is on consultancies. If you want to get another consultancy from the government, you have to tow the line. She was actually working for Allen's I think is part of the consultancy here, but she left because she was dissatisfied with the pressure to conform to prescribed opinions.
- I'm not suggesting it's easy. In fact, I get very depressed about it, particularly in light of my nine grandchildren and what we are passing onto them, but yes, we have to tackle ... I've suppose the basic word, it's really ... it sounds dramatic, but it's a form of corruption if you limit people who are in responsible positions and we should be able to trust to give impartial and accurate advice ... if we limit their freedom to do that, we're in big trouble. I think Australia's in big trouble at the moment.
- Professor
Barry Hart AM: Thank you.
- Jo Vandermark: Even though I work at the gallery and the framer keeps telling me to lighten up.
- Hon. Justice
Rachel Pepper: Thank you. Anybody else? Sorry, I can't quite see. Yes, Ms. Coram.
- Ms Jane Coram: You've spoken a lot about the politicisation of science and the absence of objective information and I'm just wondering, it's something we're struggling with too, that's our role.
- Jo Vandermark: Sorry, something?
- Ms Jane Coram: We're struggling with too, it's our role. What would you say is an effective means of getting objective information out to people? There's so much information flying around, some of it's true, some of it isn't. How does the average person-
- Jo Vandermark: Not helped by social media.
- Ms Jane Coram: Sorry?
- Jo Vandermark: Not assisted by social media.
- Ms Jane Coram: So what is a good way of actually presenting an independent information...
- Jo Vandermark: Of course one of the reforms we desperately need is adequate resourcing of these bodies. It's the fight for funds which is so corrupting of influence and



so corrupting of the impartiality. If you know that if you're taking the independent viewpoint, you're not going to get the money, boy, that's a pretty strong pressure. How do we restore adequate funding to universities and other scientific institutes of research? It's all to do with ... and as I said, it's very mixed up with security of tenure and confidence of people that they won't be victimised if they tell the truth.

I don't know what you think, but there's no question that ... I mean if you look at the number of grants ... the fact that scientists and friends of mine now have to spend so much of their time writing in applications for grants, and that the Australian research body only funds one in ten of what generally are very high quality research applications.

Economic management, which of course is a government issue, is very much at the root of these problems, under resourcing ... but of course that comes from undervaluing. If the public were more aware and better educated about these issues, they would care more. The fact that ... it distresses me that every newspaper in Australia has eliminated their science and environmental supplements and instead substituted property investment and management and accounts and business, even the Australian with its special new glossy publication called *Mansion*. There is a real factor that the public is not being educated. As a former teacher, I know that the education department bears responsibility too, but science has really been degraded in its status.

When I was teaching in Canberra, my brightest students, and we're going back a long way, as I said I'm almost 80, so I'm going back to the 70s and the 80s, my brightest students went into science. Then another decade, and they went into accounting and financial management, banks, and IT, that sort of ... commerce and business. Yes, as I said, I don't have any really magic solutions and I accept the fact that we have a huge task ahead in trying to tackle it on all fronts — from education, from better resourcing, from better economic management, and the media. How do we promote science more?

I did see that the ABC, there's a new catalyst programme starting next week. I was very angry that they axed the only magazine science programme on all television. Whether it will be just a pale shadow of its former self is yet to be seen. But how do we overcome the degradation of and the standing and status of science and how do we persuade people that it's important for government to resource it adequately? I'm not sure, except that I spend my life writing letters to the editor and to politicians, and in, I suspect, fighting losing battles, but I could ... should perhaps be doing other things.

Ms Jane Coram: Thank you.

Hon. Justice
Rachel Pepper: Keep writing and keep fighting. Thank you very much for coming today.



Jo Vandermark: Well I'd like to ... there's one other thing I wanted to say. As I think some of you know, the reason I'm here today was the suggestion of my friend who first invited me to make a joint presentation. Then she pulled out of that presentation, but she was desperate to be here today. But last night, she was taken to intensive care where she's on life support and my latest message is that she's not expected to see out the day. I would like to honour Kate Boyd, and in my submission, I will acknowledge her. I would just like to acknowledge her contribution to this presentation and her concern for the same concerns which I've expressed to you today. Thank you very much for bringing my presentation forward.

Hon. Justice
Rachel Pepper: Thank you, and also thanks to Ms. Boyd as well. Thank you very much.