Waste Generation and Resource Efficiency:
Submission to Productivity Commission
Public Hearing Melbourne Wednesday 2nd August 2006.
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The following submission is in response to the Commission scope: "to examine ways in which, and make recommendations on how, resource efficiencies can be optimised to improve economic, environmental and social outcomes. As with my previous response to the Productivity Commission Draft Report 'Waste Management" I shall combine both theoretical and practical ideas in a search for a way forward for resource efficiency and waste management.
The following are some of the issues/barriers to an effective understanding of waste and the waste process at the same time they also represent opportunities if we have the political and social will to address our culture of waste. I have not prioritised the following points as they are all intertwining contributors to the dilemma of waste, and in any event the whole is greater than the sum of its parts.

- In my previous submission I stated that there needs to be an environmental foundation (or as close as what we can get to it through the fog of our perception), for how we understand waste. As other writers have noted our understanding of the concept of "waste" is limited by the peculiarities of our anthropocentric as opposed to biocentric approaches to waste and wasting.
- As for "optimisation", if we are to be serious about measures to *reduce waste* then we need to introduce prohibitions against products that have limited utility, durability, or reuse of either type or material. What I am suggesting is that we need to have a good hard look at the *necessity* for some of the products that are currently available to consumers. As an example consider the proliferation of and the plethora of products available in "$2 Shops", that have exploded around Australia in the last decade. What did we do before their arrival? It is not much good being efficient at producing something, or importing something if it is (metaphorically speaking), garbage. All we are doing is flooding the landscape or sending it to landfill. If we are going impose financial disincentives, then let them apply at the pre not post consumption phase.
- Aligned with the foregoing, I would suggest that *planned obsolescence* is alive and well, it ranges from toothbrushes to computers, from shavers to cars, from sanitary products to lawnmowers. I would argue that ecological systems do their utmost to optimise longevity depending on the purpose of the organism. The artificiality of human production has no

such constraints (not immediately obvious anyway), and that this contributes to the proliferation of waste. Therefore I am recommending that there would have to be an independent organisation, somewhat similar to Standards Australia that would monitor the longevity of products and the therefore their impact, socially and environmentally.

- Based on the above of course, is the bigger issue of consumption. You cannot artificially or otherwise excise waste from consumption. Through any system (as far as I am aware), where something is consumed, one of the by-products is waste. Here we have an inherent stalemate, on the one hand some sectors of society want and believe we need to keep consuming for the good of the economy. On the other hand if you really want to do something about resource efficiency and waste then you have to address both the type and volume of consumption. Again disincentives could apply. The lifespan of post consumer goods, depending on your source, can range from six months to two years. This of course necessitates further consumption and substantiates the comments I have made above. Unless consumption in it's entirety is curbed both qualitatively and quantitatively then waste as a function will continue to grow.
- There is also little value in introducing or *encouraging* Extended Producer Responsibility schemes, if all those schemes do is support planned obsolescence and the manufacture of more rubbish, and then that rubbish is dismantled. The degree to which new products and materials are entering the marketplace means that there will always be a considerable lag in any effort to introduce recycling or reuse. Consider all the food containers that are imported and made from plastics that are not readily recyclable. People put them out in good faith and then the recycler sends them off to landfill. For how many years have we had personal computer systems, and how rapidly does the technology turnover? Yet for all that, only now twenty years after the event are we seeing a scratch of the surface in "E Waste recycling". It would be impossible to accurately quantify but there are still large volumes of computers entering landfills all over the country.
- Quite obviously the issue of population and relative material wealth, the western world generates more waste per capita than the less materially wealthy sections of the planet. The wealthiest country generates more waste per capita than anyone else and I suggest that if you factored in the waste that is created offshore from the USA, but is produced to enhance their wealth then you would probably increase that waste by orders of magnitude. By its very nature a materially wealthy country that is focussed on production and consumption and that increases its population will continue to increase levels of waste.

Therefore one aspect of waste control would be stabilisation of the population in line with the ecological carrying capacity.

- As for the matter of technical solutions I think that we again need to be very careful, technology can simply add to the overall ecological burden and can create new and unintended consequences. Moreover in this context technology is a cure not a prevention and; “an ounce of prevention is worth a pound of cure”. It is prevention that we should be aiming at not necessarily coming up with technical infrastructure for those items we think we can reconstitute while the rest of the waste stream gets ignored. You have to recycle an awful lot of plastic bottles to recover the embodied energy of a recycling truck.
- Technical solutions are being applied to what are clearly cultural problems in the hope that somehow we can somehow gloss over the shortcomings of a culture predicated on consumption. Unfortunately I doubt that this superficial approach will work.
- Concurrently if we are serious about some of these reuse/recycling schemes or concepts like “waste to energy” then we need to understand and clarify the embodied energy of the process/infrastructure we have created. If the embodied energy were known then the efficacy of many processes may well be regarded as dubious if a comparison was made with the supposed benefits. In concert with a number of the original submissions to the Productivity Commission from an environmental perspective I cannot understand or countenance the suggestion let alone the implementation of “waste to energy”. That any organisation that purports to be in any way responsible for the environment should have it on their agenda beggars belief. I have yet to read, and am unaware of any reports by any ecologists or biologists that demonstrate organic material spontaneously combusting so that some other part of nature can tap into the stored energy.
- To make significant adjustments to our *waste and wasting* then we need to remove the default systems that contribute to the proliferation of waste. Concurrently we need to invest in a paradigm shift to an environmental culture that is not subject to the vagaries of material development or growth. In the event that we are unable to make this transition (voluntarily), then we will undoubtedly continue to be subject to growing piles of garbage.

Peter Carroll