

Cost of Energy and Electricity

One of the most basic characteristics of modern technology is economies of scale. In any fair attempt to make cost comparisons between different technologies, this is taken into account. In the same spirit as above, we cordially invite the author of the letter – or any representative of the AEC – to show any concrete and well-documented example of nuclear power on the scale of about one watt, one kilowatt (one thousand watts) or one megawatt (a million watts) that is economically competitive with solar power in sunny South Africa.

Conventional power stations are on the scale of a few gigawatts (a few times 10 watts). If the huge state subsidies for nuclear be included in the cost of nuclear power, the cost of existing solar thermal power technologies is lower.

Many billions of taxpayers' rands have been allocated to the development of nuclear and related technologies. Some 80 per cent of the total budget of the Department of Mineral and Energy Affairs over the last decade has been allocated to the AEC for this purpose. (The bulk of the remaining 20 per cent is divided between Mintek, the Geological Survey, and the running of the Department itself.) These tax billions are but one (not the largest) government subsidy for nuclear. The policy of the Department allows no funds for solar or other renewable technology development from its budget.

It deserves mention that solar energy is also used in many ways other than for generating electricity. Some of these, such

as passive solar design of buildings, solar cookers and solar pool heating, can in a given situation be more cost effective and more user friendly than any competing technology.

Conclusion.

South Africa has the best solar radiation figures in the world, and the scientific and technological expertise to exploit and develop this energy resource which dwarfs our combined coal and uranium reserves. In the modern world, successful countries are those that can compete on the world market – by excelling in certain fields. For South Africa, gold-mining has been such a field, which earned R5,7-billion in 1994. It is in decline. Tourism earns about R8-billion in foreign exchange per year, and is growing strongly. The environment is an important generator of wealth.

Solar technology can create millions of jobs in our country, as well as strong, sustained economic growth that will not harm the environment. With a relatively modest investment, we can become a world leader in a young field for which demand is growing. This will further strengthen our economy. But only if our priorities are right.

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SUSTAINABLE UTILISATION IS A COMPLEX ISSUE

Congratulations on an excellent issue (Vol. 49 No. 4) with much to include in discussions with my students.

I was quite surprised at the conclusions drawn from the article "Not seeing the wood for the trees" by C.M. Shackleton.

One factor which appears to have been neglected in the overall "equation" is the importance of decaying deadwood in nutrient cycling. This is surely a very important consideration as well. Could it not be concluded that soil fertility is being reduced? When we refer to "sustainable utilisation of a resource" we need to consider not only the effect on the resource itself, but the secondary effect of the utilisation of that resource on other resources, before we can conclude that "sustainable utilisation" is occurring. Simple calculations are often dangerous, when not put in context.

Another disturbing factor which needs to be considered, is the "patchiness" of resources (mentioned in the article), not just regionally but globally as well. The problem of transport of a resource from one area to another is only a small part of a myriad other political, social and economic problems. It's a little like saying that the world will be able to sustain 20 billion people by the turn of the century (some people are fond of this point of view). Perhaps it could theoretically, if we were all prepared to share, redistribute and eat "the bare minimum" plant food, and at irreversible expense to the environment (not sustainable). Yes, the world could become a gigantic feedlot for a while.

It would be interesting to see what the fuelwood budget for Namibia is. It is clear that we have a massive overdraft in some regions (northern regions) and a flourishing account in the central and central eastern regions (bush encroachment). Certainly, redistribution from one account to another would alleviate the problem partially in the north. But once again, the impact of removing the wood (and hence potential soil nutrients) on ecosystems infested with bush is unknown. Those who are utilising wood in bush encroached areas are making charcoal, and selling to Europe! *Die lewe is beslis kompleks*, as the subject ecology would have us know!

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RHINO PESSIMISM

The concern expressed by the anonymous respondent to the article "Natal rhinos to Kenya" in *African Wildlife* Vol. 49 No. 2 is quite understandable, given the generally disastrous declines in rhino populations in East and Central Africa over the past 25 years. However, white rhinos in Kenya have increased since the early 1980s thanks to their excellent management in fenced, intensively-guarded private rhino sanctuaries, and this model has now been adopted by the Kenya Wildlife Service for both black and white rhinos. Half of the white rhinos sent to Kenya went to the Lake Nakuru National Park, a very secure sanctuary, and the others to the Masai Mara as part of a community wildlife project. The security aspect was carefully evaluated in advance, and we are glad to say that there have been no poaching incidents reported since their re-introduction 15 months ago.

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SOLUTION IS SIMPLE

On the letter page in *African Wildlife* Vol. 49 No. 4 I read the polemics of whether to give white rhino to Kenya or not. It seems to be much ado about nothing, as the solution of this heated dispute is simple: before sending these beautifully horrid monsters to Kenya, just saw off their horns. This will allow them to live and multiply (I do not think that a lady rhino would reject a hornless suitor) in peace for many years to come, when their protection could be assured and further mutilation will not be required.

This is like getting two birds with one shot that will make the "pros" and "cons" happy.

If my Solomonian conclusion of the matter is adopted, I shall not be averse to accepting a small reward from the Natal Parks Board. How about a baby rhino?

I hope you will be able to print the above letter as it is – I would love to see the expression on my wife's face when she reads about "her new baby".

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