

Season's
Greetings

THE SOUTH AUSTRALIAN ENVIRONMENTAL HEALTH NEWS



Which way is up ! No this is not the Port Adelaide chief environmental health officer Bill Lucas's office - *But where did you put that file, Bill ?*

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THE IMPORTANCE OF ECONOMICS IN SAVING OUR ENVIRONMENT - AN EXAMPLE USING RAINFORESTS

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As Environmental Health Officers or environmentalists we often argue that the environment should be protected, that ecosystems should not be degraded and that development should be sustainable. Why? Why should we protect the environment? I think we all have an idea as to why conservation, preservation and sustainable development are very important principles. In this article I hope to show that the environment has considerable value and that this value can be equated into economic terms.

Conservation or preservation efforts in the past have often appealed to people's morals and ignored the role that economics can play in fighting for conservation and preservation of our environment. To Governments who think with dollar signs, the environment has often been perceived as something that costs money, and doesn't make money. It has therefore fared poorly, with widespread environmental degradation resulting. It is important that we show the Government that our environment, our natural resources can provide more money being sustainably managed and conserved than through rapid unsustainable depletion as has occurred in the past. By doing this we are likely to have greater success in our fight for conservation.

Australia has lost over half of its forest cover in the two centuries since initial European occupation and little ecologically diverse old growth forest remains. Rainforests have considerable ecological, cultural, social, and economic significance that should be recognised in the economic valuation of rainforests.

Ecological values include: biodiversity, breeding stocks and population reservoirs, protection of water resources, soil formation and protection, nutrient storage and cycling, contribution to climate stability, reduction of carbon dioxide and therefore slowing of global warming, absorption and breakdown of pollution, maintaining and increasing rainfall, moderating air temperature and wind movement. Once the rainforests are removed these ecological values are lost.

Presenting the economic value of these ecological functions to Governments and policy makers could be as simple as giving them the economic value that would be needed to replace their functions eg: air pollution equipment required to reduce carbon dioxide, or the cost resulting from loss of their function eg: health related- increased asthma and skin cancer, environment related- increased dryland salinity, increased air pollution. Many of the ecological functions can not be artificially replaced and therefore need to be given a high economic value, as without these ecological functions there will be serious economic consequences costing much more than the economic value gained from clearing the rainforest. Such as global warming which will affect agriculture and fishing stocks, increased dryland salinity due to loss of soil structure, altered rainfall levels and much more.

Cultural and Social significance of rainforests include: homes for indigenous populations and their history, spiritual and identity value, aesthetic/amenity value, recreation

value, and research, education and monitoring opportunities. These too should be valued economically. Removal of the forest eliminates or substantially alters the habitat and culture of native peoples, and leads to the loss of their knowledge and experience. It is therefore important to ensure that sites of cultural significance are not lost and that clearing of these areas is prevented. The information gained from rainforest cultures and the study of pristine rainforests can be used for many purposes including: to try and rehabilitate altered rainforests or for revegetation projects, or for development of pharmaceutical, medicinal agricultural, and chemical products.

Economic value of rainforests includes use and non-use values. In the past only use values were recognized and these basically were believed to be timber and land, hence rainforests were rapidly cleared. Now further use values are recognized such as: recreational and educational experience, food resources, possible medicinal, chemical, pharmaceutical, and agricultural resources, employment, eco-tourism, sales in native fauna and flora, and more. The potential is infinite as we discover use for various items in the rainforest ecosystem. These can all be given an economic value, adding weight to the argument that our rainforests can make more money being managed sustainably than they do from being cleared.

Non-use values include: Option values, Vicarious use values, Existence values, Bequest values, Quasi-option values, and future resource value and should also be given an economic value and added into the equation for working out the total cost of rainforest removal or its total economic value.

Both use values and non-use values for rainforests are related to man's valuing of the rainforest. Even the non-use value, existence value is determined by whether we value the rainforest existing. Environmentalists and ecologists believe that the rainforest has a right to exist, without being useful for man or judged by man. This is the rainforest's inherent value and is very difficult to quantify economically.

The loss of rainforests entails very large social and economic costs. According to the World Resources Institute, the lives of more than 1 billion people- a fifth of the world's population- are already periodically disrupted by flooding, fuelwood shortages, soil and water degradation, and reduced agricultural production caused directly or indirectly by the loss of tropical forest cover.

The results of past unsustainable management of our rainforests has serious consequences on this and future generations. Our use of all natural resources, including rainforests effects the opportunities and the level of living obtainable for future generations and raises issues of intergenerational equity.

Economics has a very important role to play in the management of our natural resources including rainforests. Methods of valuing rainforests in the past have led to deforestation. This needs to change and rainforests need to be valued recognizing their use and non-use significance as well as their inherent right to exist. Only then when the total economic value of rainforests is recognized can we make decisions on their usage.

Economics is the key to this process. It must be emphasized that the decisions on rainforest usage do not affect just the state that the rainforest is in, or even the country, it effects the whole world, this generation and future generations, and it is therefore of the utmost importance that these decisions involve the public, as well as governments and industry and that the decisions occur on the basis of complete information on the costs and benefits associated with rainforests and their depletion.

We can not expect the developing countries to stop depleting their rainforests, because we tell them it is wrong, or that environmental damage will occur. They need to be shown how to make money from rainforests without clearing them. Discussions at the moment are moving toward compensatory financing under the international climate convention; establishment of a biodiversity fund; debt-for-nature swaps, and the world Bank global Environmental Facility. Compensation for not clearing is important; but I feel that showing them how to use their rainforests sustainably to gain economic value is also an important step.

This paper was produced from a 6000 word report on the value of rainforests. If anybody would like a copy, please feel free to contact myself or the editor.

HELP REDUCE FOOD BORNE ILLNESS

Campylobacter notifications in South Australia in the first ten months of 1995 were higher (2,277 cases) than the numbers reported each year since 1980. Perhaps the events of HUS earlier this year have contributed to more people seeking medical attention, or maybe there is a large increase in food poisoning.

Within this state there are over 7,000 commercial food establishments and over 700,000 domestic kitchens feeding the population of around 1,500,000. The task to reduce food borne illness is enormous, but achievable. Whatever the reasons for the current situation the public health system needs to address the question, how can we reduce food borne and enteric illness?

As part of the **ongoing campaign** to reduce food borne and enteric illness a list of **Tips for Handling Food Safely** has been included in this publication. Posters containing this information will soon be available for extensive distribution.

Help your local community by distributing and speaking about the information contained in the poster. Contact the South Australian Health Commission on telephone 08-226 6352 or fax 08-226 6339 to place your order for posters.

Additional information and products will be available soon and promoted in future issues of the CDC (Communicable Disease Control) Bulletin.

Environmental Health Officers have the most significant role of all health workers in the reduction of food borne and enteric illness.

Your support and contributions are invited and appreciated.

Communicable Disease Control Unit
South Australian Health Commission



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