Land ethics — who needs them?

Land ethics

B. Roberts

**Toowoomba Erosion Awareness Movement,
Darling Downs Institute,
Toowoomba. Qld. 4350.**

Abstract

Land degradation through erosion and salinity is Australia's most urgent environmental problem. Despite the extent and rate of land deterioration, it is not a political issue and has no lobby. Solution to the problem lies in education, incentives and regulations, each in their appropriate role.

Basically Australia needs a fundamental change in attitude toward the land based on land ethics. Fifteen specific concepts are recommended for teaching in schools to encourage a sustainable ecological basis for rural production.

The author challenges environmental educators to recognize and pursue the need for land ethics as the cornerstone of Australia's soil conservation campaign and points out that, without a fundamental change of heart leading to greater respect and humility toward the land, neither laws or finances will reverse the present deteriorating situation on the land.

Introduction

In my struggle for a solution to the erosion problem over thirty years I repeatedly return to attitudes to the land, as the fundamental issue in need of change. The conviction that the key issue which ordinary Australians should appreciate is the basic Man/Land relationship, has led to this overview concentrating not on the hard data of soil losses in terms of their production or socio-economic implications, but on the deeper values we place on land as our national foundation. When presenting a stark analysis of the ecological realities which face Australia today, it is predictable that one will be accused of emotionalism or even alarmist scare tactics. It is my firm belief that we need to re-consider the factual basis of our apparently apathetic optimism and recognize the significance of the realities which confront our rural development.

A useful starting point is Bolton's "Spoils and Spoilers" which reminds us of agricultural developments and their attendant attitudes at the turn of this century:

"In the dozen years before 1900 every government in Australia set up a Department of Agriculture which included among its functions the spread of information about sound farming practices. By that time, starting with South Australia's Roseworthy in 1882, agricultural colleges were established in four of the six Australian colonies.

Like their fathers before them the pioneers of the new farming districts cleared the land with indiscriminate zeal, spurred by the urge to render every acre productive and to leave no sanctuary for vermin such as wallabies and rabbits. Soil erosion and salt creep were the consequences."

Size of the land degradation problem in Australia

The significance of soil loss, and the need for a change in our attitudes toward the land is reflected in the findings of the national soil conservation survey (Anon. 1978). "Fifty-one percent of the total area used for agricultural and pastoral purposes in Australia was assessed as needing some form of soil conservation treatment under existing land use. The total value of fixed investment in this area subject to degradation is of the order of $12 billion (at 1974 prices)"

Recognizing the essential need for changing attitudes toward the land, as the basis for combatting the land degradation problem, the 3rd National Soil Conversation Conference (Anon. 1981) unanimously resolved: "This Conference should warn that unless there is greater awareness of, and remedial action against, this problem and that unless more funds and effort are applied to conservation of soil, it is inevitable that the production level and stability of essential primary products will diminish."

Osborne and Rose (1981) quote Kovda's (1977) estimates of Man having destroyed 430 million hectares of crop and grazing land since agriculture emerged 7,500 years ago. They point out that on a per capita basis, Australians have destroyed 11.2 hectares, compared to 3.5 hectares in the U.S.A. since settlement.

It is in the very same corner of Australia about which Rudd waxed so lyrical, that some of the worst erosion in the country is now occurring. This area, between Toowoomba and Warwick, has been the subject of a special study. It combines very small holdings with steep cultivations and intensive storms — a predictably disastrous combination of circumstances where studies relating soil loss to grain yield have been well used to bring home the concept of the permanent cost of grain production.

With an estimated rate of natural soil formation of 10-15 tonnes per hectare per annum, and an estimated annual loss of 100-300 tonnes per hectare in several northern regions of Australia, the estimated productive life of much of our sloping cropland is less than 30 years at present loss rates. On the Darling Downs approximately 10,000 hectares of some of the country's very best cropland has already been lost forever. This has occurred within 80 years after settlement. Surely

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this should be of vital concern to everyone who eats and votes.

People, land and values

We have a long record of clearing land and of apparently making the assumption that the resulting cultivated soil will support permanent cropping. In some States, notably Queensland where 80,000 hectares is cleared annually, very little use is made of existing land capability survey data or of existing legislation, to ensure a sound basis for clearing. Booysen (1980) has stated the plain facts of this crucial matter, as it affects the South African situation: "The modification of vegetation (clearing) must only be undertaken when knowledge is sufficient to ensure a management input capable of maintaining a stable and permanent cover and topsoil. Anything less than this will be disastrous."

Indeed, it has been asked whether the Brigalow of the 1960s will go the way of the Mallee of the 1930s. This possibility is certainly strengthened by the extent to which Class 2 Land prices are being paid for Class 4 Land in Queensland's marginal regions.

Land condition as an issue

It has repeatedly been pointed out by protagonists of soil conservation (Roberts, 1984), that erosion is not recognized as an environmental issue of any significance. In an unusual survey of newspaper coverage of issues, Sinden (1980) analysed the space given to environmental subjects in Australian newspapers over a full year. In that year (1978) 1150 environmental articles (averaging 3.9 per day) were published but neither land degradation nor soil erosion rate a mention in the listing of issues or their ranking.

While the tragedy of starvation in Ethiopia appears to have little in common with the erosion problem in Australia, it is pertinent to note that both situations have in common the fact that they have been deteriorating for years and have been reported on in detail with pleas for action. In both cases the authorities have apparently regarded the problem as someone else's responsibility.

Four main factors have contributed to erosion being a non-event amongst environmental activists. Firstly, it is seen as a natural process that is not really man-made and has always been with us. Secondly, because it is so widespread it very seldom arises as a major local issue sufficient to stir any one local group into action. Thirdly, soil as such has no appeal as a rare or beautiful resource when compared with say wildlife, the barrier reef, rainforests, or sand islands. Fourthly, and perhaps most significantly, soil erosion is associated with the little man, the battler, the man on the land struggling for a living against the elements.

We have allowed the landholder to ruin much of our available soil on over half of the area of productive land, while we make it increasingly difficult for miners to produce enormous wealth for us on less than 1% of our land area (Roberts, 1982).

In an article headed "The biggest job of all for conservationists" Graham (1976) writes, "State Conservation Departments and their soil and water divisions, severely limited as they are, have been unable to stir up public and political awareness of the danger (of erosion). Could not the A.C.F. the champion of other environmental causes, take up this one, undertaking the monumental task of convincing politicians that the decision to save the soil cannot be left to the last moment."

Since that time the A.C.F. has responded with a series of meetings and publications on soil degradation and in a recent survey (1984) of A.C.F. members it was shown that conservationists now see soil erosion as Australia's highest priority environmental issue.

It is the author's view that a major deficiency still exists in the extent to which rural producer organizations are not accepting their share of responsibility for soil conservation. Who will speak for the land, if those who depend on it, do not speak? We need to analyse why there is no effective political lobby for soil conservation and take corrective action without delay.

Changing Australia's attitudes

Downes (1972) in his overview of "The ecology and prevention of soil erosion" regards Australia as one of the most recently settled countries where the effects of settlement on the land are now reaching their "peak of severity" The whole basis of soil conservation, erosion control and reclamation is "ecological" in Downes' view, indicating a need for a widespread understanding and appreciation of Nature and her limits.

Part of the change in sentiment relating to Australians' relation to the land is reflected in the words of local folksongs. The bush ballads of the late 1800's sang of the challenge of settling the country and the hard times that accompanied rural life. Sentiments relating to frontier activities such as timber-getting, ringbarking and clearing have been superceded by concern for Australia's disappearing forests, e.g., John William's country western song "The Trees are now gone". The frontiersman's perception of "man against nature" must now be, and is being, replaced by a more symbiotic relationship in which people see themselves as one dependent biota integrated into the earth's ecosystems (Glacken, 1970). Without such change it is difficult to see the Australian "vision splendid" remaining so.

This realization of our unfeeling arrogance toward the land has led to poets such as Judith Wright recording the poverty of spirit reflected in denuded landscapes such as her "Eroded Hills" (1963):

> These hills my father's father stripped;
> and, beggars to the winter wind,
> they crouch like shoulders naked and whipped —
> humble, abandoned, out of mind.

In every rural community there are those rare individuals who show unusual concern for the land and its maintenance. Graham and Valmai Burnett of "Rathburnie" in the Brisbane River Valley, Queensland, exemplify these opinion-leaders. Burnett (1984) after a quarter of a century of conservation farming states with stark simplicity, "Humus is the most important natural resource on earth" Even when conscientious husbandry of the land shows real benefits in times of drought, as was clearly demonstrated by the Burnetts in the early 1980s, general non-acceptance by the local community, of the permanent philosophy, is predictable and widespread. This unwillingness to consider the virtues of the permanent approach to the land is symptomatic of the leeway which needs to be made up before constructive land ethics can be established in Australia.

Let us consider the words of Aldo Leopold:

"Conservation is a state of harmony between men and land. By land is meant all the things on, over, or in the earth. Harmony with land is like harmony with a friend; you cannot cherish his right hand and chop off his left.

The problem, then, is how to bring about a striving for harmony with land among a people many of whom

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have forgotten there is any such thing as land, among whom education and culture have become almost synonymous with landlessness. This is the problem of 'conservation education'.

When one considers the prodigious achievements of the profit motive in wrecking land, one hesitates to reject it as a vehicle for restoring land. I am inclined to believe we have overestimated the scope of the profit motive. It is profitable for the individual to build a beautiful home? To give his children a higher education? No, it is seldom profitable, yet we do both. These are, in fact, ethical and aesthetic premises which underlie the economic system.

No ethical and aesthetic premise yet exists for the condition of the land these children live in. There is as yet no social stigma in the possession of a gullied farm, a wrecked forest, or a polluted stream, provided the dividends suffice to send the youngsters to college.

What conservation education must build is an ethical underpinning for land economics and a universal curiosity to understand the land mechanism. Conservation may then follow" (Aldo Leopold, 1953).

A Theology of the land

The use of moral obligations as a means of gaining co-operation in landcare has not been widely applied in Australia. In the United States the pulpits of country churches were used by "father of soil conservation" Hugh Bennett in the 1940s. "Big Hughie" made it very clear to his congregations that it was nothing less than our Christian duty to preserve the land and keep it fruitful. Elliot (1978), the Australian philosopher, makes a crucial point when he challenges our samaritanism toward the land:

"When we see someone being exploited, our response as Christians ought to be to mirror God's concern for the outcast and the down-trodden. In a similar way, when the earth is being exploited, our response ought to be to mirror God's concern for His Creation"

It has been noted by Cook (1970) that our approach to the land could form a permanent relationship through one of three bases:

1. Ecological (McHarg, 1969).
2. Humanistic (Wilson, 1970).
3. theological (White, 1971).

The proponents of a conservation approach to land resources have appealed to all three of these sentiments which have essentially the same goals but differ markedly in their motivating force.

Christian land ethics

What did Christianity tell people about their relations with the environment? The short answer is, "not very much", although many religious philosophers challenge this interpretation.

Especially in its Western form, Christianity is the most anthropocentric religion the world has seen. Lynn White (1971) has written at length on this matter:

"Man shares, in great measure, God's transcedence of nature. Christianity, in absolute contrast to ancient paganism and Asia's religions (except, perhaps, Zoroastrianism), not only established a dualism of man and nature but also insisted that it is God's will that man exploit nature for his proper ends.

At the level of the common people this worked out in an interesting way. In antiquity every tree, every spring, every stream, every hill had its own guardian spirit. By destroying pagan animism, Christianity made it possible to exploit nature in a mood of indifference to the feelings of natural objects.

The greatest spiritual revolutionary in Western history, Saint Francis, proposed what he thought was an alternative Christian view of nature and man's relation to it: he tried to substitute the idea of the equality of all creatures, including man, for the idea of man's limitless rule of creation. He failed. Both our present science and our present technology are so tinctured with orthodox Christian arrogance toward nature that no solution for our ecologic crisis can be expected from them alone."

"Man is still of the earth, earthy. The earth is literally our mother, not only because we depend on her for nurture and shelter but even more because the human species has been shaped by her in the womb of evolution. Each person, furthermore, is conditioned by the stimuli he receives from nature during his own existence" (Dubos, 1973).

Rene Dubos has a special message for us in Australia:

"The phrase "conquest of nature" is certainly one of the most objectionable and misleading expressions of Western languages. It reflects the illusion that all natural forces can be entirely controlled, and it expresses the criminal conceit that nature is to be considered primarily as a source of raw materials and energy for human purposes. This view of our relationship to nature is philosophically untenable and destructive. A relationship to the earth based only on its use for economic enrichment is bound to result not only in its degradation but also in the devaluation of human life. This is a perversion which, if not soon corrected, will become a fatal disease of technological societies."

Education and attitudes

The most important contribution which ecological education can make is the development of what we may term the Ethic of Responsibility. Here we refer to responsibility toward our ecosystems, our fellow humans and our creators. Marsh (1864) was one of the first to expound this idea and has been followed by ecological philosophers such as Passmore (1974) and Routley (1975) — writers whose thoughts deserve much more attention within the present Australian situation. Only in this way will the clash between private convenience and public welfare be resolved.

We might start with James Thurber's suggestion, that is: "Let us not look back in anger, nor forward in fear, but around in awareness." I would add, "not with arrogance but with humility, not as though we were the last generation to inhabit the earth, but as temporary trustees of posterity's resources" (Roberts, 1974).

Conservation is essentially a concern for the human species. Ecological action, in the long run, can only be based on compassion, respect, understanding and a willingness to share with others. Not, "The land belongs to us" but "We belong to the land". Not "We are the conquerers of the earth" but "We are a part of the earthly system" (Roberts, 1974). It is this concept of our dependence on our natural ecosystems in the form of a lasting symbiosis, which forms the basis of Sampson's (1982) plea for giving land ethics a central place in agricultural education.

Ebenreck (1983) in her mini classic paper entitled "A Partnership Farmland Ethic" advances from the stewardship ethic to the concept of partners — man and land, and shows how permanent productivity can result from the practical application of "doing things together — us and the land" Ebenreck's approach is deserving of our very serious consideration as the germ of an idea

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which could form the cornerstone of a whole new sense of values concerning our land and our respect for it. This idea ties in closely with Ashworth's (1982) notion of recognizing land as more than simply a chattle to be used: "So long as land is conceived of as property, the evolution of an ethic which circumscribes liberty to use property as we please, will be difficult." The partnership ethic recognizes that our land relationship is a complex, two-way, on-going process in which both partners are recognized as having different intrinsic values in which both give and take from each other. Ebenreck goes as far as suggesting we listen to what the land has to say to us in terms of meeting its requirements as a permanent partner.

This gentle custody is in stark contrast to Louis Bromfield's (1947) description of Western man as "behaving like a reckless son who has inherited too much money" (Pechey, 1980).

One of the greatest services which ecological education could render, would be the development of a clear understanding of the difference between sentiment and ethics. Sentiment is an unreliable guide; but ethics gives us benchmarks, priorities, value judgements and accepted norms. Thus the starting point for ecological education is the development of realistic attitudes toward our treatment of our environment, and the end point of such an education is the cultivation of ecologically sound habits toward nature.

Two points need to be made here; firstly we cannot return to a past Utopia, and secondly we cannot maintain the present wasteful and unrealistic way of doing things much longer.

As Aldo Leopold said, "We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect." Leopold, widely acclaimed as the Father of Land Ethics, goes on to say "There is as yet no ethic dealing with man's relation to the land and to the animals and plants which grow upon it. The land relation is still strictly economic, entailing privileges but not obligations. Obligations have no meaning without conscience, and the problem we face is extension of the social conscience from people to land. No important change in ethics was ever accomplished without an internal change in our intellectual emphasis, loyalties, affections and convictions.

"The proof that [land] conservation has not yet touched these foundations of conduct lies in the fact that philosophy and religion have not yet heard of it. In our attempt to make [land] conservation easy, we have made it trivial ... That land is a community is a basic concept of ecology, but that land is to be loved and respected is an extension of ethics" (Leopold, 1966). The basic idea of land ethics is expanded by Anderson (1983) to a practical stewardship of good land husbandry. In this way guidelines for practical action on the land grows out of a code of ethics.

It is generally recognised that the acceptance of a comprehensive conservation program throughout the nation requires a combination of financial assistance, regulatory guidelines and extension. If extension is broadened to include education from adults down to young children, a number of specific aspects of such an educational program may be considered. The writer suggests that the following 15 Point Education Plan is worthy of implementation in Australia in answering the fundamental question, "What should we teach?":

1. We should teach that the dominating and consuming approach to our non-renewable resources is short-sighted and has caused failures of civilizations through history. We should proclaim the truism that a rising standard of living cannot be maintained on a falling level of soil fertility.
2. We should emphasize that conservation does not necessarily imply non-use or protection for its own sake. It means maintenance of productive potential, by marrying economic and ecological realities, as in the National Conservation Strategy.
3. We should teach that good farmers are in fact good applied ecologists, for both seek to harvest the products of nature at a level that can be sustained by ecosystem equilibrium.
4. We should teach that we are not independent controllers of Nature, but an integral part of the global systems on which we depend. It is a lack of awareness of this interdependence that has caused the environmental problems which the world presently faces.
5. We should teach that environmental problems are complex and often require national and international solutions.
6. We must bring home to coming generations the old Greek addage that what men learn from history is that men don't learn from history — that each generation seems doomed to have to learn its own lessons on ecological behaviour, unless we learn to read the signs.
7. We must avoid the despair and gloom which so easily arises from consideration of environmental problems and we must teach the optimism and challenge which is demonstrated by the successes of dedicated and persevering individuals and organizations.
8. We must teach that even in our democracy, the common good of the community takes precedence over the unfettered freedom of the individual to act irresponsibly towards the environment.
9. We must stress the need for political ethics in our system of government, together with the desirability of more vision and less expediency, more permanence and less exploitation.
10. We should emphasise the links and interdependence of landholders and city dwellers, of taxpayers and consumers, in such a way as to develop an understanding of resource conservation as an issue concerning the whole community.
11. We must demonstrate case-studies which bring home the disasters of poor land management and the achievements of sound planning as a basis for sustained stable production.
12. We must imbue in the next generation a pride in good stewardship of the land, a lasting satisfaction from well-husbanded land. The spiritual well-being which flows from such fundamental achievement should become an integral part of our national ethos.
13. Together with a national pride in conserving non-renewable resources, should be acceptance of a land ethic which not only values our good fortune but develops an awareness of others less fortunate and how we might share our good fortune.
14. We must emphasise that as a resource-rich western nation set in the eastern arena, we have grave responsibilities which accompany our role as trustees of such natural wealth.

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15. Finally, we must teach that we are each temporary residents in the grand scheme of things — that we are on this earth for but a fleeting moment in the life of our land. As such we cannot be end-users with a right to consume the potential of the land. Rather we have the privilege of using the land and leaving it in a better condition that we found it (Roberts, 1983).

I suggest that in our efforts to develop a Land Ethic in our nation's values, we be guided by John Ruskin:

"The earth is a great entail. It belongs as much to those who come after us, as to us, and we have no right by anything we do, to involve them in unnecessary penalties, or to deprive them of benefits which are theirs by right."

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