Land conservation in Western Australia

G A. Robertson
Man's intensive use of land exposes that land to a greater risk of deterioration than in its undisturbed state. Land conservation means using land in a manner that minimises the risk of deterioration and ensures that it maintains its productive capacity indefinitely.

Agricultural land use in Western Australia is a relatively recent phenomenon. Much of our agricultural land has been developed in the past 30 years. Our arid and sub-tropical areas have been used for pastoral grazing only in the past 100 years.

Some of the deleterious effects of our use have only become obvious recently because so much of our land has been developed in relatively recent times. For example, changes in soil structure that have been occurring slowly since cultivation started are only just becoming easy to recognise. Similarly, the effects of over-grazing in pastoral areas can now be recognised as denuded landscapes.

As we follow the full cycle of annual climatic variations we can see that in many instances today's land uses are not conducive to long term stability and productivity.

These observations do not indicate that pastoralists and farmers are insensitive to the well-being of the land they use. Rather, they show that land use in Western Australia is in its infancy. Land degradation is generally a slow process. Present production systems designed and used with the best intentions are unlikely to be the ultimate for land conservation. Change will be made as we gain more knowledge of the environment and as the economic situation varies.

Fortunately, in Western Australia we have had enough warning of problems that are likely if inappropriate management systems continue. Already we have seen areas of the State affected by water erosion, wind erosion, vegetation degradation and salinity. Although these areas are significant to Western Australia in terms of their loss of productivity they represent only a small part of the land being used for agriculture and pastoral grazing. The challenge to today's land conservationists is to develop appropriate land use systems to stem the accelerated rate of land degradation and erosion.
Department's role

The Department of Agriculture’s Division of Resource Management has a prime responsibility to prevent land degradation and to foster land conservation in Western Australia. It is involved in research and extension into the problems of soil structure decline, wind erosion, water erosion, soil and stream salinity and pastoral land degradation.

Identifying all aspects of the problem is part of the research effort. But the main emphasis of our research is to develop land use systems that eliminate the problem. An important criterion of any new land use system is that its net result be equally if not more profitable than the system it replaces. Thus the Division’s research into land degradation must be carried out in close cooperation with the Department’s plant, animal and economic sections.

The State Government has re-assessed its funding allocation for land conservation research and extension. Its 1982/83 budget increased the funds available for research into land degradation problems.

The prime objective of today’s conservation programmes is to develop land use systems that will permit stable production in various parts of the State in the long term.

Legislative changes

As a result of a review of conservation legislation, significant amendments to the Conservation Act were proclaimed in September 1982. These amendments provide an improved framework for the Government to respond to land degradation problems. As the legislation was up-dated, more funds were committed to land conservation research.

The administration of the Soil and Land Conservation Act is the responsibility of the Minister for Agriculture. The final success in overcoming land degradation problems will be achieved when stable and profitable land use systems are developed. There is a vital role for the Department of Agriculture to play in the development of such systems, therefore it is essential that the Department of Agriculture and the Soil and Land Conservation Act are working towards the same objectives. Each Departmental officer has a role to play in this interaction of agricultural production systems and soil and land conservation.

A Soil Conservation Advisory Committee has been established to play a major part in identifying land conservation problems and developing effective policy for attacking these problems. The Committee advises the Commissioner of Soil Conservation and the Government on land use and land conservation policy.

The Committee comprises five rural land users, including a nominee of the Country Shire Councils’ Association, nominees from the Primary Industry Association and the Pastoralists’ and Graziers’ Association and two other land users. The Committee also has representatives from the Government Departments of Forests, Public Works, Conservation and Environment and Agriculture.

Soil Conservation Districts

A major innovation of the amended Soil and Land Conservation Act is its emphasis on Soil Conservation Districts. The Act makes it possible to establish a Soil Conservation District where a land degradation problem exists or has the potential to develop. When a District is ‘declared’, all relevant resources can be applied to its problems. Also, local land users can be involved in identifying the land conservation problems and assisting in developing solutions.

Any Shire Council and producer organisations in the proposed Soil Conservation District, as well as the individual landholders, have to be consulted before any District is declared.

Each Soil Conservation District will have an advisory committee composed predominantly of local land users. It must have at least one representative of each Shire Council involved in the Soil Conservation District and representatives of producer organisations active within the district. However, the exact composition of any committee is to be flexible and will be determined after a district has been declared. Although most Soil Conservation Districts will be in agricultural and pastoral areas, they will also be an important medium for handling coastal soil conservation problems.

The District Advisory Committee will be able to investigate the methods of land management and land use in its district, and to advise and recommend action to prevent or mitigate land degradation problems. It will have technical assistance from the Division of Resource Management and from any other Government department involved. The Committee also will be able to recommend on aspects of financing programmes within a Soil Conservation District where these programmes will help solve land conservation problems.

Funding Soil Conservation District programmes

Funding soil conservation programmes is always a difficult problem, particularly in agricultural areas where the causes and effects of problems may be separated geographically. Often a works programme to control flooding may need to be carried out some distance from the areas that are likely to be flooded.

It is also difficult to identify how much an individual or a community will benefit and difficult to apportion the responsibility for a soil conservation problem.
Therefore the Soil and Land Conservation Act provides a flexible mechanism whereby a Soil Conservation District can establish a fund to be used to tackle land conservation problems in that district. Local landowners can contribute to this fund, where appropriate, through rating. The State Government or other organisations also can contribute.

A District Advisory Committee will assess any programme proposed within a Soil Conservation District and provide a recommendation to the State Soil Conservation Advisory Committee on the most appropriate funding source.

The Soil Conservation Advisory Committee will be responsible for reviewing the costs and benefits and recommending to the Government how costs could be apportioned. The Government will contribute money to programmes in Soil Conservation Districts when appropriate. This will generally be where the community as a whole benefits rather than an individual land owner. An allocation for this purpose has been made available by Treasury for the 1982/83 financial year. It will continue in the future.

**Soil Conservation Notices**

The Government’s policy on soil and land conservation in Western Australia is to ensure that an appropriate technology for land conservation is available, then to encourage land users to use it. A provision in the soil conservation legislation allows for Soil Conservation Notices to be issued by the Commissioner of Soil Conservation requiring the land user to alter his management to minimise land degradation. There are significant penalties in this legislation for those who do not comply with such Notices but hopefully the objectives of land conservation will be accomplished through co-operation, with minimal use of the penalty clauses.

Also in the legislation there is provision for appeal against a Soil Conservation Notice. The land user is able to appeal to the Minister for Agriculture who will refer this appeal to an independent advisory committee for an assessment.

**Conclusion**

We can not expect to reverse today’s land degradation trends quickly or easily. We need a vast amount of information on the nature of the environment before we can develop land use systems that will be stable in the long term. However, Western Australia’s land degradation problems have been recognised in their early stages and farmers and scientists are directing increasing resources at solving them.

The new Soil and Land Conservation Act should provide a good framework for developing more appropriate land use systems.

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Unlike it is carefully planned, land clearing for agriculture can result in erosion problems.