



**YOU  
AND  
YOUR  
ENVIRONMENT**

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a green paper



# YOU AND YOUR ENVIRONMENT

edited by george w. bryant

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*Printed by Business Printing Works Ltd, 22-24 Nelson St, Auckland.*

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This Green Paper embodies the findings of a special committee of the N.Z. Social Credit Political League, comprising representation from the League's Executive, Political Executive, Policy Committee and Research Committee.

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# FOREWORD

You and Your Environment embodies the results of investigations of a concerned group of people into the environment we live in, how it affects us, and what can be done to improve it. Concern for conservation, in its widest sense, has always been strongly embedded in Social Credit thinking but, unfortunately, the public has not been made aware of this concern, for various reasons. During the 1972 General Election Campaign, for example, the League was placed first in both the quality and substance of its answers to a questionnaire distributed by the New Zealand Ecology Action Committee to all political parties. The committee's secretary confirmed the 'superiority' of the Sacred environmental policy and the fact that the survey showed Social Credit 'way out front'. If so, then why the need for this document?

Several reasons. First, it was felt that the time had come for the basic principles and policies, already adhered to, to be spelt out in detail. Second, Social Credit shares the present general concern of some politicians and planners but especially the concern of the man-in-the-street towards what is happening to the environment and the effect that changes are having on human beings. And third, it was felt that since the approach offered herein is unique, a definite viable alternative to anything advocated so far by any political or environmental group, then it just had to be published, for full discussion and debate, because human welfare is at stake.

Many thousands of words have been written on the subject: the bibliography lists the more vital works. Our purpose is not to add thousands more to descriptions of environmental concerns — we are all well aware of them — but, rather, to grapple with the causes and present solutions to New Zealand's specific problems. Nor does this report claim to be comprehensive but it does provide a concise documentation of an alternative point of view.

As members of New Zealand society we have a supreme responsibility to pass on to our children and their children's children a society equal to, if not better than, the

one we inherited. To date, society has done little: the attitude has predominantly been one of exploitation and speculation rather than one of utilisation for long-term benefit. We have failed to realise that man depends totally on his environment; it supports us and nurtures us. We abuse it, therefore, at our own peril. If it requires a massive Government public relations campaign to convince every New Zealander that he merely holds the land in trust and must treat it with care, then such a campaign must take place. But in the last analysis it is really no good blaming the politicians, or the industrialists or manufacturers for polluting our environment: every individual person is responsible. Apathy is no excuse. The man who continues to abuse his surroundings must be brought to account.

At the outset we feel we must briefly comment on the basic difference between developing and developed countries. Many would-be environmentalists, in their obvious enthusiasm, fail to take full cognizance of the fact that developing nations are forced to exploit and process their natural resources to earn foreign exchange to raise their living standards, so much has the Western world made them. We cannot blame them. Environmentalists who disregard the right of underdeveloped nations to a basic standard of living are being unrealistic. We have a duty and responsibility to them. While this report primarily concentrates on the New Zealand scene it also indicates more enlightened trade policies and monetary policies for helping the poorer nations to help themselves and so relieve human suffering and starvation. It is senseless to talk in terms of bringing New Zealand production to a standstill when we are obliged to fulfil our humane duty to use our lands wisely to produce for those in need. Orthodox financial aid, or even 1% foreign aid proposals, merely serves to aggravate the environmental problems of the under-developed world by driving them further into debt and making them poorer.

The most urgent need is for every New Zealander to come to terms with nature himself. By so doing he will be acting justly and responsibly.

# INTRODUCTION

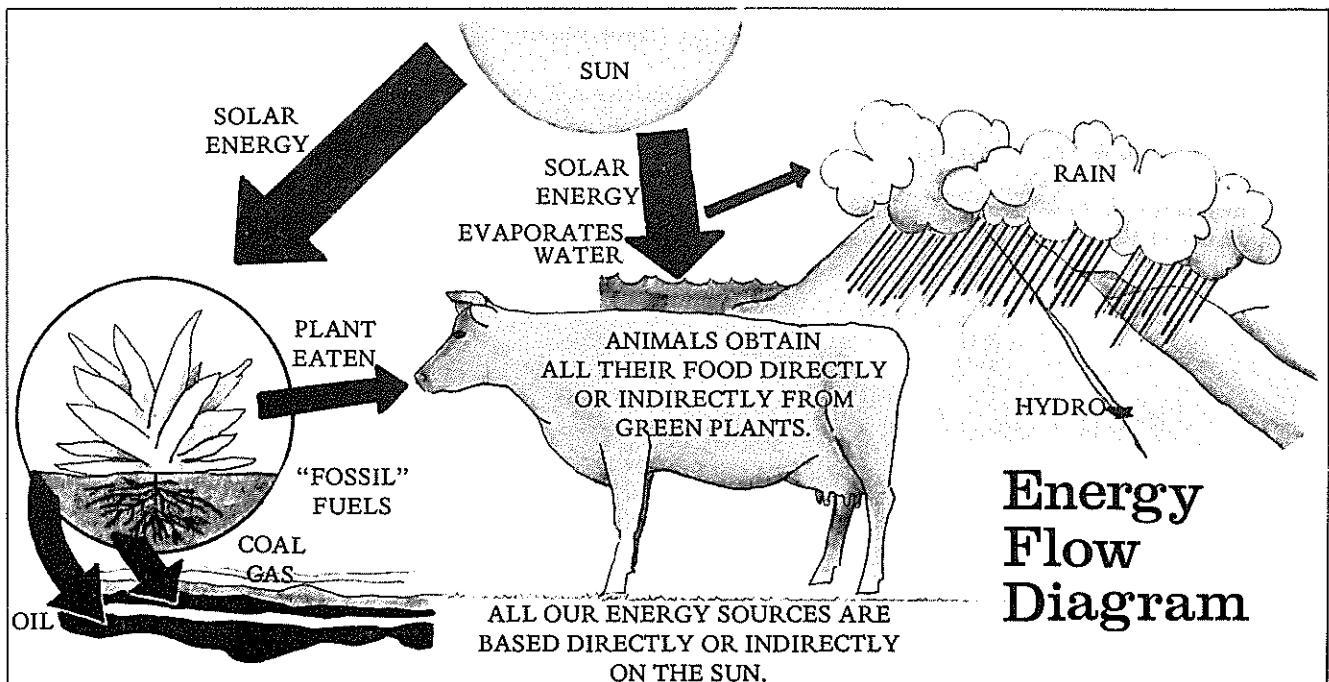
Fortunately for mankind, awareness of environmental problems and pollution is becoming fashionable. Unfortunately, when any such subject is topical, all kinds of organizations and groups jump onto the bandwagon, often confusing the issues involved. However sincere and knowledgeable some groups may be there is often much uninformed comment and use of the topic to gain publicity. It would be very desirable if every individual or group which commented on the environment first stated the philosophy from which it approaches it and what it hopes to achieve. We see two major approaches: (i) the cosmetic approach, that is, treating the effects of environmental pollution, such as the pouring of filth into a river or ocean and planting trees around the outfall to conceal it, and (ii) the total approach, which sees the problem from every aspect of man's social, aesthetic, cultural and recreational environment. We strongly favour the latter, and maintain that any political organisation or movement not interested in the total environment may be sincere but certainly not effective.

## A Total Approach

For example, if we must choose between a colour TV in every home and the correction of pollution in our waterways and harbours as a result of the outpourings of untreated sewage, then the overall approach must give

priority to solving pollution. There are 664,440 TV sets in New Zealand homes. With the advent of colour TV later this year (1973) it is a safe business estimate that within five years half a million colour sets will be sold in this country. At a cost of \$650 each set this represents an outlay of resources totalling \$325 million. This vast sum would be adequate to provide every N.Z. community above 500 people with a waste recycling system. What this choice really means is whether fathers and mothers want to prevent their kids getting hepatitis swimming in our polluted rivers or watch colour television. It means that New Zealanders are seriously going to have to re-examine their life-styles in terms of promoting such basic, important concepts as health.

The wholistic or total approach to looking at people in their environment is the only approach. As Sir Lindsay Robb stated in his Sanderson-Wells Lecture in 1957, 'When man ignores this interdependence (of man, soil, climate, plant and animal life), this delicate balance, when he begins to take more from his environment than he gives to it, he writes his own death warrant'. Man's ecological niche is a single living, interdependent entity. His environmental slot means not just the air he breathes, his physical surroundings, the society in which he lives but his total being - from his physically innermost self to every organism and object around him. It is no exaggeration to





say that his concern for his environment and his understanding of it is essential for his own survival.

Man cannot escape the fact that he is a natural living organism, with basically similar requirements to those of any other. His intelligence enables him to bend the laws of nature a little, usually to his advantage, but it is physically impossible for him to escape them. Like any other living thing, he is a transducer of energy. He requires a supply of energy and uses this to manipulate materials to carry out his life processes. Unlike other living organisms, not only his body but also the machines he has invented carry out processes of this type. Both must have a supply of energy; both must have materials supplied in reasonably pure form, and both produce wastes. Practically all the energy man himself uses comes originally from sunlight, is harnessed as chemical energy by green plants, and is eventually passed on to man in his food from plants or animals. The natural chemical processes involved at all stages are incredibly complex. They require the right materials and critically correct conditions. The presence of 'wrong' chemicals in small quantities can block these processes: in short, Man's efficiency is easily impaired. The wrong chemicals or poisons can come from either his own body wastes or from industry.

As an intelligent living organism man has the power to control his environment, but only to a certain extent. Nothing can alter his needs for healthy food, clean air, and surroundings which are suitable to his healthy development. Because of his emotional and intellectual development, the aesthetic value of his surroundings can also influence him greatly. Therefore it is not only purely physical aspects of his environment which will be discussed in this document. Man's physical survival is dependent on three things: (a) intelligent and realistic stabilisation of population growth, which is posing greater problems daily in terms of supply of resources and disposal of wastes (b) full and unwasteful use of resources, both material and aesthetic, and (c) rigid control and recycling of wastes, both organic and industrial. This paper discusses all three.

While it is true that many of our environmental problems have arisen from the application of increased technology, it must be realised that the solutions lie in more sensible use of that technology coupled with a radical change in our attitude to human need. A decision has to be made as to whether production is to continue to be geared to shoddy, short-lived goods (planned obsolescence) and armaments, or to quality, craftsmanship

and durability. If we choose the former the earth's resources will soon be exhausted while a few grow rich on exploitation. As stated in *A Blueprint For Survival* (Ecologist, January, 1972), 'We do not need to utterly destroy the ecosphere to bring catastrophe upon ourselves: all we have to do is to carry on as we are, clearing forests, "reclaiming" wetlands, and imposing sufficient quantities of pesticides, radioactive materials, plastics, sewage, and industrial wastes upon our air, water and land systems to make them inhospitable to the species on which their continued stability and integrity depend'. If we choose the latter, the present economic system will collapse, based as it is on continual expansion. Indeed, it would appear that either way mankind will suffer.

#### Economic Reform

It is quite obvious that our present environmental problems will continue, and grow, if those in positions of responsibility and decision-making continue to uphold the present, outdated, orthodox economic system which is responsible for the environmental mess we are in. What is proposed here is a different socio-economic system geared to the promotion of a healthy environment and not one based only on industrial expansion and the speculative profit-motive in a takeover of our natural resources. Environmental considerations must dominate economics. As Professor J.T. Salmon pointed out in his Sanderson Memorial Address, 'On the point of cost remember always that it is only when nature is to be saved that the question of cost is raised as a barrier. By contrast, when commercial interests seek to pollute or destroy nature for industrial development a World Bank loan is a certainty'.

The overall human requirements must not be subordinated to a system designed for blind material progress as an end in itself. It is absolutely necessary that all social and economic systems should exist to serve individual Man and his descendants. We oppose the present economic and financial systems in both the Eastern and Western worlds which over-ride human dignity and tend to make Man subservient to a system. For our own sakes we must make the system work for us and not the exploiters out for a quick dollar. This will involve a different attitude and hard-hitting, basic economic reform. 'We have the time — perhaps a generation', says leading U.S. ecologist Professor Barry Commoner, 'in which to save the environment from the final effects of the violence we have done it.' The two main problems seem to be (a) have we the willpower, and (b) who will pay?

# BASIC PRINCIPLES

The development of consistent, logical and humane policies on the environment must be based on certain basic principles and values. There is much evidence in New Zealand at the present time to indicate that government and politics divorced from basic principles produce unco-ordinated and piecemeal activity at best, and inadequate government-by-expediency at worst. It is imperative that moral principles and ethical standards occupy a prominent place in the minds of every politician, administrator, and individual person concerned with shaping and moulding an environment not only just fit for people to live in but one fully conducive to their maximum well-being.

We believe, therefore . . . .

- (i) THAT every New Zealander has a natural right to a basic minimum level of material well-being sufficient to promote his physical and mental health.
- (ii) THAT the individual is more important than the State. Society exists to enhance the development of free and creative human beings and environmental policies should aim to help man be himself, to develop his potential.
- (iii) THAT a healthy, stable and free society which will allow maximum individual self-expression is only possible when the ownership of the assets of Society are shared by as many individuals as possible (to reverse bureaucratic centralization of both private and state ownership).
- (iv) THAT human well-being and ecological salvation must take precedence over speculation and exploitation of our natural resources for profit, and over economic growth for its own sake.
- (v) THAT environmental planners have a responsibility to create balanced, self-contained communities which enhance personal identity and dignity.
- (vi) THAT environmental policies should be built on the principle of decentralization or regionalism with informed public involvement: the democratic principle of involving local people being practised at all times.
- (vii) THAT policies should be built on a system of incentives as much as possible, not coercion.
- (viii) THAT a governing principle of the conservation of resources and enhancing of the environment be the recycling of all agricultural, industrial and municipal wastes.
- (ix) THAT protection of the environment must dominate economics: whatever is physically possible and desirable must be made financially possible.

Unless environmental policies stem from similar basic principles as these then much of what we do in the name of 'ecology action' will be only a hit and miss affair. And when the future welfare of men, women and children is at stake expedient hits and misses will simply not suffice.

# THE CONSERVATION OF OUR NATURAL RESOURCES

Our country's natural heritage is superb: we have the choice of selfishly living for the day, no matter what the consequences of our actions or, as informed and intelligent people, accepting the challenge of finding means of putting exhaustible natural resources to apparently inexhaustible use. If man must leave his mark let it be the mark of his intelligence. As a first positive means in accepting this challenge we must see that resources which are being recklessly squandered are fully utilised so that long-term benefits are not sacrificed for short-term gains. Two basic principles govern our approach: (i) the necessity to promote multiple land use and initiate a programme for a balanced agricultural system involving the strategic placement of forests or stands of trees, and (ii) the recycling of all agricultural, industrial and municipal wastes.

## Land Use

New Zealand's natural resources must be developed for the benefit of all New Zealanders, and soil conservation must be regarded as a protection of our greatest natural resource, the land. No one should be permitted to speculate in or abuse or destroy land, the basic producer of wealth. It is criminal that excellent agricultural land continues to be engulfed, unabated, by urban development, with no effort being made to conserve this land for future productive use.

If we are serious about preserving our lakes, rivers, land and bush for posterity then we must have a full-time Ministerial position of senior status, that of Natural Resources and Environment; and for the purposes of 'resource use' all land users should be responsible to the Minister. Such a Ministry, with a fully-effective department, which will protect the resources of our country from the hands of those who make their profits by exploiting our heritage, is vital. At the moment it is grossly understaffed. For example, in reply to a letter to the Commission on the Environment opposing the erection of a power station in Evans Bay, Wellington, the Commissioner advised that he would look into the matter but that his staff consisted entirely of himself at that time!

Through a policy of optimum land use decisions should be made on how land will be utilized — whether for urban, farm, forest or recreational or protective use. A 'priority' clause is needed in all Acts dealing with the land so that conservation becomes the first consideration. Whether the next generation blesses or curses us will depend upon the degree of responsibility we now show in administering our country's assets. A broad national land use is urgently needed.

## Zoning

A system of environmental zoning for the nation is strongly recommended. The zones would be:—

- (i) An inviolate sanctuary zone, which would include genetic sanctuaries, marine sanctuaries and other

areas which may not be disturbed under any circumstances.

- (ii) A Reserve zone, including national parks, scenic reserves, marine parks etc. The public would have unrestricted access to this zone except in exceptional circumstances as, for example, very high fire hazard weather, but no commercial exploitation would be allowed (in some cases mining would be allowed under stringent controls, including restoration at the end of the operation).
- (iii) An Open Country zone. This would be subdivided into areas suitable for (a) forestry only (b) forestry or grazing (c) unrestricted use. 'Green belts' near cities and some foreshore areas would be included in these zones.
- (iv) A National Development zone. This would include urban areas and the various sub-zones at present in use for industrial development.

## Multiple Land Use

Man faces a dilemma in land use. Efficiency, necessary for feeding, housing and clothing a growing population as well as for economic reasons, points towards increased adoption of monocultures. But these involve risks of disease, depletion of soils, excessive need for chemical controls and other problems. We favour methods which will encourage multiple use of agricultural land wherever possible. For example (a) farm forestry, where parts of farms are devoted to timber trees. This would not only provide diversification but also improve the environment for birdlife, with the natural reduction of pests. (b) Diversification and rotation of crops on arable land. (c) Careful zonation of land so that each part is put to its best use, whether it be for fruit-growing, cropping, grazing or silviculture. Land should be rated accordingly to its zoned use value and not by the present artificial standards. (d) Establishment of satisfactory shelterbelts on a community basis, on large areas of level land.

## Recycling (See also, Organic Waste Disposal)

The New Zealand Soil Association and similar organisations should be supported in their efforts to have municipal compost schemes in all cities and boroughs. Both legal and economic incentives should be given for such measures, such as the lowering of transport costs for fertilizer made from municipal waste, and the giving of low interest loans to local bodies wishing to establish composting plants. The inter-departmental committee for refuse disposal or organic wastes should be re-constituted to actively promote such schemes and to co-ordinate them with pollution control under the Water and Soil Conservation Act, 1967. Once again we stress that only an

integrated policy will be completely effective: 'laissez-faire' politics are not desirable. Basically, recycling and reusage is a municipal concern: local bodies are best suited to managing refuse and sewage on the local level. In addition legislation is needed to prevent the discharge of toxic substances into sewers or with refuse. However, it is also a national responsibility and problem especially for areas outside the municipal jurisdiction, for example, in the case of lakeweed control and recycling.

Another example of the cosmetic, expedient approach to the environment can be seen in Government attempts to control Lake Rotorua's lakeweed and eutrophication problems. Dr Colin Little, world authority on utilization of aquatic weeds and author of a monograph on the subject (and also a New Zealander, familiar with Rotorua Lake problems) is emphatic that they could be solved by harvesting and utilization for fodder. Dr Whittimore, Dr Little's superior at F.A.O. headquarters in Rome, is also enthusiastic, believing that the production of stock food from New Zealand lakeweeds could be included in F.A.O.'s Freedom from Hunger campaign. Dr Kenneth Morris, who lives in the area, renowned for his research into this and other environmental problems, also asserts the viability of mechanical harvesting. But despite the scientific evidence from the experts, despite the fact that firms are ready to carry out pilot projects (two young engineers actually successfully harvested some of the lakeweed in Auckland's Western Springs, converting it into meal for stockfeed with three times the protein content of dried grass, as well as having overseas markets for it) and despite the humanitarian possibilities of such mechanical harvesting, the Government and the National Water and Soil Conservation Organization favoured spraying with diquat, a biologically dangerous chemical. Diquat, they affirmed, was cheaper and in the words of the Hon. Duncan McIntyre, 'the product of harvesting was unlikely to provide a stock food of significant value'! But, Dr Morris points out in an article in *Soil and Health*, February, 1973, the spraying with diquat provides only superficial success while the rotting weed beds are left to further enrich a heavily eutrophicated lake, and the long-term biological dangers are conveniently ignored.

Diquat is a commercial product. Mechanical harvesting is its most serious rival. So once more vested commercial interests have combined with weak, expedient political excuses to produce a half-measure.

#### Coastal, Lake and River Reserves

We view with considerable alarm the gobbling up of our attractive beach frontages by commercial interests, both New Zealand and overseas-owned. On one beach north of Auckland a huge American concern is presently subdividing a massive hillside with clear-felling on the frontage of one of New Zealand's most beautiful beaches, with lots selling upwards of \$12,000. The result — disfigurement of the natural scenery for private profit. As Professor J.E. Morton of Auckland said recently, 'Increasing pressures on the coastline were coming from a

small minority anxious to extend the profitability and private use of a limited and dwindling resource'. And we agree with his suggestion that from now on the onus should be on the developer to show why, taking the widest view of the public interest, a further coastline subdivision should be allowed.

Our natural assets should not be open to massive speculation. The need for the preservation of large wilderness areas for public use is obvious because (a) of the need to provide public access, and (b) of the need to prevent seepage of sewage. Speculation and exploitation of coastal areas should be controlled by stringent zoning, prohibiting, where desirable, the erection of buildings. All coastal development should require the mandatory installation of domestic and industrial recycling equipment such as the Swedish Moltram system. And along major rivers and lake frontages legislation should provide for buffer zones of forest between farmland and the rivers and lakes.

We acknowledge and support the valuable work being done by such voluntary organisations as the Acclimatization Societies, which involve local concern and interest, in preserving wildlife and recreational areas. And we align ourselves with all organizations opposed to takeovers of our inherited rights. Special mention is made of the excellent work being done in the Marlborough Sounds Maritime Park to conserve and enhance ecologically and for human enjoyment, the varied, numerous and scattered reserves in the area.

#### Genetic Resources

Natural extinction is a constant threat to all living species which are unable to adapt to their environment. Mankind is accelerating the extinction of many species of animals and plants, any of which could prove to be of exceptional genetic or economic importance in future. Current examples are the development of new breeds of cattle by crossing with wild strains; and certain New Zealand native plants which have been shown to have useful medicinal properties. Marine parks and genetic sanctuaries must be established wherever necessary to preserve scarce or threatened species.

## RECOMMENDATIONS

1. THAT a full-time Minister of Natural Resources and Environment be established, with a fully-effective department.
2. THAT a system of environmental zoning be adopted for the nation: (i) an inviolate sanctuary zone (ii) a reserve or park zone (iii) an open country zone (iv) a national development zone.
3. THAT legislation be introduced to make withdrawal of any part of our national parks or other reserves subject to the following conditions:—
  - (i) Five years' public notice and the right of interested bodies to make representations to the Minister of the Environment and to take the

matter, if necessary, to a suitable court of law.

- (ii) The area lost to be replaced by purchase of similar land of at least equal environmental value.
  - (iii) These conditions to be waived in the case of national emergency only by a unanimous vote of Parliament.
4. THAT a legally enforceable conservation code be established and administered by the Department of Justice to ensure that land developers, manufacturers and industrialists conserve our natural resources.
  5. THAT all agricultural, industrial and municipal wastes be recycled by one of the following:—
    - (i) reprocessing into by-products
    - (ii) conversion into balanced fertilizers
    - (iii) control of their return to the environment in non-toxic bio-degradable forms.
  6. THAT present, unsuitable use of land be phased out, where possible, over a maximum period of twenty years, with adequate compensation. For example, agricultural land adjacent to rivers and lakes which is contributing to pollution and eutrophication should be converted to forestry.
  7. THAT all land adjacent to major cities and boroughs, when offered for sale or subdivision, be purchased by the Crown at a negotiated price. Following classification, titles should be issued with sufficient protection to ensure best possible usage.
  8. THAT land use committees be established, consisting of suitably qualified personnel from interested professional bodies to advise the Minister of Natural Resources and Environment on the correct usage of land within each region.
  9. THAT an area of one nautical mile around the main islands of the Poor Knights and Pinnacles become a marine reserve. This policy to be extended to other areas.
  10. THAT the present policy of preserving natural areas containing rare species be expanded.
  11. THAT lakeweed be controlled by mechanical harvesting with a view to composting or for fodder, though where appropriate biological control should be considered.
  12. THAT legislation be introduced making the Mines Act subordinate to legislation concerning the environment.
  13. THAT where natural gas and or petroleum are removed from sub-strata they be replaced with suitable materials e.g. water.
- Overseas Ownership
14. THAT no overseas individual or concern may purchase land in New Zealand except under the following conditions:—
    - (i) the purchase is approved by both the Ministry of the Environment and the Local Body concerned;
    - (ii) a development plan covering at least twenty years work following purchase is submitted, which is satisfactory to both bodies;
    - (iii) the Minister of the Environment is satisfied that the purchase and development proposed are non-speculative and in the interests of New Zealand;
    - (iv) should the development plan or its logical extension be not fulfilled, the Minister of the Environment has the right to acquire the land at valuation.

# FORESTRY

The important features of trees in terms of our environment are: (i) they provide us with resources (ii) they replenish oxygen in the atmosphere (iii) they protect watersheds and soil (iv) they possess an aesthetic value, (v) they have a bearing on climate alteration (vi) they both provide and protect tourist sites and wildlife and recreation.

The guideline to any effective and practical forest policy is correct land usage, bearing in mind that the fertility of the land must be maintained at all times. It is tragic that so much of our native bush is being bulldozed down for the sake of both industry and housing; there is no doubt that any education programme must include education about the value of trees within the eco-system. A case in point is the fate of the beautiful kauri tree, the only species of its type in the world. Yet today less than one half of one per cent of the original kauri forest is left in its virgin state. In the words of Rei Hamon, bushman and artist of the Coromandel, 'Destruction of these magnificent giants seems to be increasing and this is happening because the conservationist has no real authority to speak. A beautiful, living fossil is in danger of extinction for monetary gain.'

The role of our valuable native forests of Podocarpus and Nothofagus (beech) cannot be minimized without danger to our watersheds, wild life and river systems. As protection forest, our native species must be preserved and extended wherever possible. And in order to maintain a more balanced environment it is important that exotics be planted on many marginal lands, cut-over native forest, eroded bad lands, and abandoned pastoral country: the labour and investment required would stimulate the economy in such areas. On the volcanic plateau of the North Island, for example, New Zealand Forest Products Ltd has found that mature stands of exotics encourage a vigorous native understory to which birds and insects are attracted. By felling and burning a limited area at a time it has found that there is always some natural habitat nearby in which wild-life can take refuge.

## Beech Forests

Any development of South Island beech forests should be as New Zealand industries and NOT involve the selling of our resources to overseas concerns. We cannot accept that one of the major reasons for developing the forests is just to give 1,500 men jobs. We have reached a sorry plight indeed when the abuse of the natural environment is determined by the necessity of giving men work to do. But there is another, more worrying principle at stake. In the Social Credit League submissions on the South Island Beech Forests to the Nature Conservation Council (February, 1972) they posed a basic question so far not asked by any other group interested in this issue. They queried why the Government — any Government — looks to the beech forest

to increase our productivity. The answer is obvious. The necessity to maintain our overseas reserves forces us to sell our assets and allow the exploitation of a natural resource for overseas concerns. Under the present economic system, therefore, it is inevitable that Japanese and American interests will be encouraged to invest in whatever raw materials we can offer for processing. 'Comalco', for instance, is a result of bargaining for hard currency in preference to a New Zealand-owned industry which could have been established in Southland. Our whole trading system is geared to the dollar. Witness the giant chip mill at Nelson, for Japan.

It is our belief that New Zealand should set up its own processing industries and export the finished product. How much of our natural resources are utilised solely because of an international trading system designed to meet the rapacious needs of the wealthy and strong nations at the expense of national endemic resources? We do concede that mature stands of beech could be felled (selectively, not clear-felled, and to allow regeneration) to a limited degree if for a New Zealand-owned industry such as a forestry corporation. But, whether we like it or not, foreign interests mean exploitation. And we are concerned that once this type of use is allowed in principle the limits will be extended in response to various pressures. We are strongly against the principle of the public paying for the profits of a few. How much does the sale of produce from the Kaingaroa State Forest to the Tasman Pulp and Paper Company, for example, cost the New Zealand taxpayer?

No area of natural resource should become the plaything of political or commercial opportunists. The value of a viable eco-system cannot be assessed in terms of money, particularly money which, unlike other standards of measurement, changes constantly at the dictates of apparently uncontrollable forces. When that eco-system is a climax forest, the result of centuries of delicate and complex biological integration, there is but one way to regard it, and that is with profound respect. New Zealand native bush should be preserved as recreation and genetic reserves for the future. Judicious silviculture may be necessary, and pest control, to aid preservation.

## RECOMMENDATIONS

1. THAT proposed development and use of natural resources be subject to a full benefit-cost analysis.
2. THAT incentives for the establishment of forests by farmers and other private organizations be increased.
3. THAT any utilization of our beech forests be for the benefit of New Zealand and not overseas concerns.
4. THAT in any development full recognition of land zoning be observed and in particular all protection forests be preserved.

# AGRICULTURE

It has often been stated that agriculture is the key to human ecology. The rise of modern social-moral problems stems not so much from rural areas where man lives close to the soil but from the consequences of urban drift. While there is no suggestion that New Zealand revert to the closed, self-centred rural communities of the Middle Ages, everything must be done to preserve our agricultural environment and everything that is best in it. We need to diversify production, increase the use of natural fertilizers, conquer plant pests and diseases, promote co-operative farming based on individual ownership with a greater servicing relationship to regional centres (i.e. in supplying food and milk) and improve the total human health value of the produce. As Dr Lindsay Robb said, 'In the final analysis the function of land is to maintain human health, and from the handful of soil on the one hand to the loaf of bread on the other this should never be lost sight of in what goes on between. (Sanderson-Wells Lecture, 1957.)

Government has a responsibility to ensure that it is not made easy for people to be pushed off the land because of rising costs, high mortgages and amalgamations into bigger and bigger units. Farming is viewed as a way of life, as well as a business, and every effort must be made to ensure that agriculture is profitable enough to keep people on the land. It is noted that under the present economic system only large units can survive the debt-tax-cost spiral, while true individual enterprise is squeezed out, contributing to urban sprawl. Greater emphasis should be placed on land settlement as we believe that the most efficient farmer is the owner-occupier.

The agricultural chemicals board should be restructured to ensure that it is impartial and not dominated by commercial interests pushing for the use of noxious chemicals in their own interests.

The Agricultural Chemicals Act 1959, Section 11 (i) states that, 'the principal function of the Board shall be

generally to promote the welfare of the agricultural and chemical industries, by ensuring that any agricultural chemicals used in the industries are efficient and used safely.' The safety levels are largely determined from research by the agro-chemical industries themselves! We do not dispute the efficiency of agro-chemicals but efficiency is no indication or proof of safety.

We oppose factory farming where it adversely affects the environment or is proven to be inhumane.

Trespass rights should permit access to public areas especially along South Island rivers to the high country, and a system of national walkways. On the Poronui Station, for example, there is only a paper road access to the ranges at the rear (the Kaimanawas) — the public is actually forbidden access.

## RECOMMENDATIONS

1. THAT a greater use of organic manures, instead of artificial fertilizers, be encouraged to (a) provide a more balanced fertilizer for the soil and (b) make sure adequate resources are available when overseas supplies dry up.
2. THAT a crash programme of research be introduced (a) to use pesticides more carefully (b) to replace them with biological controls whenever possible, and (c) to ultimately phase them out.
3. THAT diversified farming practices be adopted in place of monocultures.
4. THAT agricultural universities do more research into the practical and theoretical application of ecological principles in farming, including the recycling of wastes.

# TOURISM

Our natural environment provides untold enjoyment for both New Zealand visitors and those from overseas. Our children should be taught how to appreciate it. But in the chase for the tourist dollar some unwelcome signs are appearing as the tourist industry has an increasing impact on the environment, physically and socially. Internal tourism is no less a problem than overseas tourism. For example, the influx of visitors to holiday resorts at peak periods puts a strain on water and sewage facilities.

Staggered holidays would help but it is imperative that small boroughs receive direct grants to expand facilities and low interest loans for local body works of some magnitude. Present legislation to prevent the natural environment from being exploited by tourist industrialists is insufficient. Too often local people are subsidising giant overseas concerns to upgrade their own environment for overseas profit. In Pahia, for instance, pollution created by overseas

investment is putting more pressure on the local ratepayer to clean it up. In many cases private New Zealand citizens cannot get financial aid to develop their own resources but every help is given to overseas companies. Witness the wave of overseas-owned motel companies now being established and the duplication of resources by rival concerns.

We must ensure our resources are freely available for New Zealanders whether they want to go tramping, skiing, hunting or fishing. We do not want New Zealand to become a little America. And any suggestion that the West Coast be given Casinos is anathema. It is time we promoted the principle of 'New Zealand for All New Zealanders' first and foremost. With increased local competition, overseas concerns will find it more difficult to infiltrate. It must always be understood that overseas visitors, whether temporary or permanent, are only our guests, not our landlords!

# FISHING

## The Problem

The pressure by both Government policy and commercial interests to increase our export markets from the fish population in New Zealand waters could well lead to the stage where, through lack of knowledge of marine ecology and lack of research facilities in this field, we run the risk of seriously depleting this natural asset; as has already happened in many countries. On the one hand the United Nations' original estimate of protein from the fishing fleets of the world has recently been reassessed at half the original tonnage, and on the other, foreign fleets are moving more regularly, and in greater numbers into waters adjacent to New Zealand.

Little is yet known of the breeding, feeding, and migratory habits of the marine life around our coasts. If the fish population is to be exploited on a continuing basis urgent protection measures will be necessary. A marine biologist recently admitted that there are signs that the Hauraki Gulf is becoming over-fished. This most certainly applies to the Firth of Thames, and from the numbers of long line fishermen forced out of business throughout New Zealand, it appears that other areas are certainly showing signs of depletion. For example, Tauranga and Thames trawlers are now working the Northland coast — in some areas within yards of the beach. Long line fishing, which returns a better product and does nothing to deplete fish stocks, has shown a steadily accelerating decline in Northland.

The amateur fisherman can no longer rely on a catch. The depletion is taking place at the urging of the Government for more overseas funds and increasing dependence of the industry on overseas capital. Fish, as a consequence, is becoming no longer part of our staple diet, but an expensive luxury: certainly few New Zealanders can afford even the occasional luxury of crayfish on the table.

## The Solution

The first and most urgent requirement is the enforcement of a three-mile limit, against all forms of trawling and power netting, and if not a total ban then at least severe restrictions on the placement and use of box nets around our coastline. Such control would at least protect the inshore breeding and feeding grounds from the disruption and destruction of marine life in these areas.

The original concept of the three-mile territorial limit no longer applies in this modern age of rapid transport and inter-continental missiles. New Zealand's current territorial limit of twelve nautical miles is no longer a reasonable distance. We need sovereignty over the whole of our continental shelf: an immediate extension to fifty miles and control to two hundred miles, which would enable New Zealand to police foreign fishing outside the fifty-mile limit.

A crash programme of conservation is needed immediately for our remaining crayfish stocks. Commercial crayfishing requires strict licensing and limits on the size of the fleet. Sanctuary areas need to be established, and crayfishing grounds zoned, so that rest seasons can be operated over different areas each year.

Natural assets belong to the whole community. This particularly applies in the case of shellfish. It is every New Zealander's right to use such food for his own consumption, and in the case of our Maori and Island peoples it is a traditional and necessary part of the daily diet. Limits on quantity are no doubt necessary but commercial exploitation of natural littoral stocks of shellfish should be banned. Further research in the farming of mussels, scollops and paua for commercial purposes is also urgent, and a survey should be instigated to find the most suitable areas for shellfish farming. With any sea farm development care must be taken to prevent encroachment into recreational areas.

## RECOMMENDATIONS

1. THAT a national three-mile limit be enforced against all forms of trawling and power netting.
2. THAT our territorial limits be expanded beyond the boundaries of the continental shelf to protect it (50 miles).
3. THAT research into marine biology be increased.
4. THAT all littoral, natural stocks of shellfish should not be commercialised. (Any shellfish for sale will have to be farmed.)
5. THAT research be intensified into the more rapid development of marine farming of shellfish stocks.



# POLLUTION

## Some facts:

- \* Four million gallons of untreated sewage pour into the Wanganui River every day.
- \* 500,000 gallons of untreated sewage pour into Lake Wakatipu daily during the tourist season.
- \* 500,000 gallons of untreated sewage pour into weed-choked Lake Rotorua every day.
- \* Three to four million gallons of untreated sewage pour into the Waikato River daily.
- \* Each freezing works washes down the drain the protein equivalent of 330 sheep every day.
- \* Every year chimneys spew out 150,000 tons of polluting gases and smoke.
- \* Every day our farms and factories contaminate 220 million gallons of clean water.
- \* Each year three million gallons of insecticides and weedicides are sprayed over New Zealand farms.
- \* 12 million pounds of rubbish are dumped every day by New Zealanders.

Material progress must at all times subserve human progress and the quality of life. No factory should be built if it means the lives of the people living nearby are going to suffer because of noise and stinking or toxic fumes. No river should be polluted with the excuse that there is no money available to provide anti-pollution measures. We agree with Dr Carolyn Burns, limnologist, who maintains there can be no safe levels of man-made pollution. And our view is strongly that if it is possible to eliminate pollution it can and must be financed. Progress should not be measured in terms of 'goods produced' but in terms of 'services' and 'facilities' made available. However, wastes from production must be dealt with positively. We don't want to see our streams and rivers and lakes turning into cesspools. At the same time we are entitled to progress to the stage where we reach such a standard of living that we do have leisure to enjoy our fishing spots, picnic areas, native bush, boating and swimming.

As long as we have in our society people who suffer deprivation of the basic necessities of life, including leisure, we must go on producing. Does this mean, then, increasing pollution? No. Pollution can be controlled by any nation having the will to do so.

We are particularly concerned about the invasion of individual privacy by people's exposure to long-term low level of toxicity which will eventually result in a great variety of delayed pathology. This is not detected at the time of exposure and may not be detected until several decades later. Most research on pollution centres on the

acute effects of exposure to such toxins as 2,4,5-T, diquat, and DDT. By refusing to acknowledge our ignorance of the long-term effects of toxic chemicals we are laying ourselves open to an increasing social and medical burden. Dr Samuel Epstein, who has investigated 2,4,5-T, has predicted that those who actually handled the chemical defoliant during the Parnell crisis will suffer delayed neurological after-effects.

## Control Inadequate

The whole administration and control of pollution is inadequate. Witness, for example, the lack of protection and safeguards at Parnell or the abuse of permits to pollute by the Huntly Borough Council. Witness, also the ironical situation shown up in the legal condemnation of the Huntly Council. It was found guilty, not of polluting but of polluting 'without a permit'! Standards are far too lax and their enforcement even more so. The present monitoring for heavy metals and chlorinated hydrocarbons is also inadequate. Manufacturers of these substances have too much say as to 'safe' levels. Who, for instance, controls industrial chimney-stack discharge? Some of us have personally experienced nitrogen peroxide, chlorine, hydro-chloric acid and butanol in the New Lynn and Penrose areas of Auckland. Isn't it time we enforced the fitting of carbon and catalytic filters on industrial chimneys and major incinerators? To the best of our knowledge only a bacterial count is taken on sewer effluent before it is discharged: research is needed on the extraction of heavy metals (especially mercury and arsenic) before it is discharged.

Central government must set guidelines, enact binding legislation and finance research. One of its major roles must be that of awakening a national consciousness and individual responsibility. It is a pity that, to date, most legislation has been brought forward only as a result of public opinion and pressure rather than from researched findings and planning. In addition, Government should assist the authorities concerned with laboratory facilities; for example, a central laboratory for the Waikato Valley Authority. But the responsibility is not all Government's. Local Bodies should have manned depots for sorting usable waste, and stringent by-laws especially on local air, water and noise pollution.

Nationwide monitoring, although supervised and guided by a Ministry of Natural Resources and the Environment, should be largely independent of industry and Government. The co-operation of professional organisations and local bodies is necessary; the results of any monitoring should be made public. When Professor John Roberts of Victoria University commented on the penury of local bodies and the need to halt municipal pollution, in his film *What Have They Done to the Rain?* he said, 'We have to have a new political measure'. We believe so.

### Visual and Noise Pollution

While we are well aware of other forms of pollution such as that of drugs and pornography we felt that these were beyond the scope of this green paper. However, visual and noise pollution is increasingly becoming a problem. The eye is being bombarded every day with a conglomerate of buildings (few of which fit aesthetically into their surroundings) and ugly hoardings. Many of the latter should be removed so that the 'natural' environment can be enjoyed to its fullest. Every building, especially factories, should be required to blend aesthetically with its surroundings.

On noise pollution very little research exists. The Soviet Union awoke to the human dangers of noise pollution as far back as 1956 and since then have produced virtually noiseless pneumatic drills and compressors, strictly limited the noise emanating from lathes, electric motors and other machinery, and built factories and flats with noise-deadening walls and partitions. One aspect of considerable concern in this country is the movement of heavy lorries, with their accompanying air pollution, through the main streets of small towns and through closely-settled residential areas. It is a common sight, for example, to see 'dead cow' trucks labouring through Waikato towns: people are forced to stop talking (or shout) and cover their noses.

Decibel levels need to be established for all parts of cities and towns with by-laws requiring companies and individuals to adhere to them. The Transport Ministry and local bodies could (a) establish heavy traffic by-passes (b) sink the highways between embankments or, better still (c) isolate the highway from the community by a mandatory grass strip or a belt of trees — which would act as a sound barrier.

Some pollution problem areas not previously mentioned are: Christchurch in winter where the combination of exhaust fumes, coal-burning domestic fires, factory smoke and winter fog provide a most unhealthy environment; city rubbish dumps; sewage flowing into the sea from Napier, Hastings, Wellington, Picton, Dunedin, Hutt Valley and other cities and towns; pollution from the refinery at Marsden Point; the railway through the centre of Mount Maunganui; the chip-mill effluent into Hawke's Bay; and the pollution of Titahi Bay.

We totally oppose the Waitemata County Council's proposed rubbish tip in a beautiful valley of native bush and waterfalls in the Waitakere Ranges. The proposal is the cheapest! It is simply amazing that (a) no alternative to dumping has been seriously considered, and (b) no attempt has been made to investigate possible avenues of further finance for alternatives.

We commend such valuable attempts to control pollution as the Christchurch sewage treatment plant and the one at Mangere; the Tasman Pulp and Paper Company mill at Kawerau where a clarifier removes solids from effluents and holds it ten days in a ponding system before returning clean water to the river; and the Mount Wellington composting system, which hasn't attracted a great deal of attention because no big business is involved!

### Oil Spillage

Heavy penalties are necessary for oil spillage but they are not the answer. To help control spillage Government should assist Harbour Boards, where necessary, to purchase the suction-type cleaning equipment. And heavier fines should be levied on offending shipping companies as compensation for any work or damage caused and to discourage a repetition of the same offence. Consideration should also be given to more effective navigational laws for oil tankers. The washing-out of tanker holds should not be allowed anywhere in New Zealand waters and we should support any international laws controlling this practice. However, facilities could be provided in port to discharge oil wastes and purify them into bio-degradable forms. Tankers not destined for New Zealand ports should not be permitted to travel in our territorial waters. Fire precaution laws also need strengthening.

### Organic Waste Disposal

In nature, waste from one life cycle becomes a resource for the next. We believe that the recycling of waste by municipal authorities should qualify for low interest loans. What a tragedy that the Mount Maunganui composting scheme had to be abandoned through mismanagement of finance. The situation appears ludicrous when people will object to the release of treated effluent from a sewage scheme into an estuary but turn a blind eye to continual seepage from buried raw waste. We favour scientific composting because so-called sanitary land-fill is wasteful and usually breeds pests. Also there is a risk of pollution from water runoff and fires.

Studies, such as the inter-departmental reports on the Disposal of Municipal Waste and the Feasibility Study for Greater Christchurch, published by Lincoln College, show municipal schemes to be viable, especially if costs could be lowered. The Dano or Tollemache systems appear to be the best for large urban areas as these can be established at central points to enable short-haul collection, preferably by electrically-driven vehicles. The window system could be a good introductory plant for small rural areas. Some market gardeners have advised that they would find this central

location of plants (e.g. there could be four Tollemache plants in Christchurch and at least three Dano plants in Auckland) most convenient as they would be able to deliver produce at their retail outlets and return carrying compost. Another advantage would be to families who have little time to make their own back-yard compost. Municipal compost, delivered in large quantities would provide 'instant gardens'. Municipal pulverisors for inorganic material are also advocated. Sewage could also be dehydrated into pellets for use as fish foods.

Research into the safety and practicability of distributing sewage sludge and effluent on the land has been conducted by a British scientist, Dr Silverman, who declares the use of treated sewage to be safe. Farm sewage has for many years been proven beneficial on the Haughley Research Farms in Britain. A mechanism producing methane gas from the decomposition of farm wastes, which gained the John Lysacht award in Australia, would be useful on New Zealand farms. We should, of course, support any further research but are already satisfied that pathogenic organisms can be rendered harmless by correct composting. Professor V.J. Chapman of the Auckland University Botany Department favours the spraying of sewage onto the land (practised near Melbourne) while Dr Slack, zoologist at Victoria University, sees sewage ponds as reserves of nutrients for fish-farming.

The fertilizer subsidy scheme should be extended to cover sewage-derived fertilizer but we suggest that the process be subsidized rather than the product in order to make it cheaper for local bodies. We are staggered that both parties in Parliament preferred to classify such fertilizer as 'soil conditioner' thus making it not eligible for a subsidy! If a material makes a soil more fertile surely it is entitled to be called a 'fertilizer'.

Legislation should require that all industrial contaminants (even those merely suspect) not be disposed of by releasing into the environment until rendered completely safe by suitable processes. Where this is impossible the chemicals or other contaminants will have to be stored in suitable containers and encouragement given to use alternative processes. For example, there is a bleaching process for paper which does not require mercury. Where mercury is used at present, financial incentives would help to make the changeover.

Support should be given to waste separation programmes which aid treatment and disposal, such as processes for protein and fat recovery from freezing works, abattoirs, dairy factories, and wool-scouring plants, and the separation of organic from inorganic household waste. Some modern systems can do this already.

Organizations such as the anti-litter councils are not taking a total view of the pollution problem. A typical example of the 'cosmetic' approach is the use of Government funds for a man to consult with local authorities on receptacles for their householders' rubbish: this is treating only the effects — the same money spent on municipal composting would have been far better. Or take the case of the many cities pouring raw sewage into the open sea and the pathetic attempts to seek alternatives. Both Napier and Hastings do so. Recently Hasting's

temporary licence for sewage disposal, plus the right to pour raw sewage into a drain, was extended. This is no answer. Professor Salmon of the Zoology Department at Victoria University says it is wrong both ecologically and scientifically to discharge raw sewage into the sea even if its exit point is a mile off shore. This material should be properly treated and extracted before it is discharged. Of course it is a more expensive operation but, as an honorary Vice-President of the British Soil Association, Professor Barry Commoner, claims, 'In a properly managed economy based on ecology instead of on exploitation these things would be possible.' And this is the crux.

## RECOMMENDATIONS

1. THAT an independent Scientific Research Corporation carry out research on non-pollutant projects and projects that will reduce pollution, this body's findings to be made public.
2. THAT legislation be implemented to stop individuals or firms from buying off inventions merely to prevent their implementation. Any patent given should have to be developed within three years to retain patent rights.
3. THAT all vehicles subject to warrant of fitness tests be required to meet decibel level and fume-emission level tests.
4. THAT grass strips and tree belts be constructed between main highways and community areas to act as sound barriers.
5. THAT the natural character of the New Zealand countryside be preserved from hoardings so that we have a more pleasing landscape to the eye.
6. THAT greater assistance be given by Government Departments in the use of technology to combat all forms of pollution.
7. THAT low interest loans be provided for the recycling of municipal wastes.
8. THAT a subsidy be given on the production and, where necessary, on the consumption, of organic fertilizer.
9. THAT a levy be imposed on manufacturers who do not provide for the recycling of non-biodegradable wastes. (This levy will not be incorporated in any price increases and will act as an economic penalty for polluters. The levy will be estimated at the cost of cleaning up the pollution.)
10. THAT legislation be introduced to ensure that an adequate deposit be paid for all glass containers of beverages such as beer and soft drinks. (The value of this deposit will be marked on the bottle during manufacture and repurchase by any dealer in the drink concerned will be mandatory, at the price stated. In the case of beer bottles the deposit will be at least ten cents each.)
11. THAT the work of Catchment Authorities in reducing pollution of streams be speeded up, with particular emphasis on cowshed and industrial pollution.
12. THAT Government work strenuously to obtain international agreements on control of pollution of the sea and atmosphere.
13. THAT smokeless zones be established in urban areas.

# THE URBAN ENVIRONMENT

Cities are for people. But the uncontrolled development of these monster human ghettos (worsened by our capitalistic and bureaucratic excesses) is destroying their social fabric and thereby stunting human growth and sickening the individual. The report, *People in Melbourne*,\* states that the social and economic functions of the modern city offer the only hope of human survival, yet their novelty and complexity threaten fundamental human values which make survival worthwhile. We have to educate ourselves in understanding cities, anticipate their growth and then choose the best kind of city organizations, surroundings and facilities. The urban environment will be what we make it. Humanity faces the collapse of human values in uncontrolled urbanization, unless action is taken now.

Places are more important than how to get to them. The whole question of traffic in the city, especially the inner city, desperately needs thorough examination. People need a choice of attractive places to go to and to be able to get to them easily and inexpensively in safety. All the things we do when living in a city, whether at home, at the job, or relaxing, are at particular places, made up of outdoor spaces and indoor spaces. Places can be busy, ugly, beautiful, slow. They can be small, quiet, large, colourful, exciting, scary, relaxing or inspiring. It is merely commonsense, then, for the Leicester traffic report to state 'environment comes first, traffic afterwards'. At places we can have face-to-face relationships with others, speak with men and women, be in vital contact. Can we not therefore expect our urban surroundings to be clean, safe, distinctive, and refreshing?

We suggest that houses be grouped around open squares instead of in streets; traffic by-passes on sunken highways; smokeless zones; 'green hearts' within residential areas; a closer, more integral relationship between surrounding agricultural and the urban area with handier camping sites, cycle paths, fishing and sports areas, and lakes; and easy access to social amenities. It is realised, however, that one of the formidable barriers to community development has been the lack of finance with which to provide community facilities. But a workable method of diverting publicly-created wealth into the public purse for the common good must be devised, for the good of our health and without destroying private initiative.

The urban environment is the framework for human development: it is an infinitely complex community wherein man, woman or child wants to be valued. Opportunities for the maximum of human encounters and scope for every level of achievement are yet to be created in our urban centres. To do this, a comprehensive overall view, a total approach to living in cities, an ecology for human

beings becomes inescapable. Barbara Ward says we lack a unifying vision of the whole urban order as a proper field of co-ordinated inquiry and action. She says that until it is achieved we may as well remain more visionary about outer space than our inner space and give ourselves a rougher landing in the city than on the moon.

What are some of the factors needed to make humane urban surroundings? Pollution factors have already been discussed.

- (i) City centre blocks need to provide for living, working, servicing and recreation, that is, a complete human environment rather than the artificial, costly, socially disastrous fragmentation that present zoning causes.
- (ii) There needs to be an emphasis on people as solid, three-dimensional beings requiring three-dimensional mixtures of varied buildings, plantings and landscapes, quite different from monotonous streets of building facades.
- (iii) Separation of traffic from pedestrians.
- (iv) Integration of transport so that all means necessary, whether monorail, bus or moving footpaths are used together.
- (v) Socially balanced and varied income housing groups.
- (vi) A clear statement of national objectives dealing with the location of industry and population, from which would flow policies in respect of roads, ports etc. Regional planning is essential but cannot work in isolation. And local planning needs streamlining: at the moment there seems to be considerable lack of co-ordination by city authorities.
- (vii) A thorough reappraisal of the whole concept of subdivision and the tendency to build too many houses on a minimal area or on valuable farmland. Government development in towns should be subject to town planning.

## Housing

We advocate self-contained communities, providing employment and social opportunities with full interaction between the various groups. In addition to the points above we suggest that the State Advances Corporation be more flexible in allocating loans for new housing, that is, increase the variety of materials allowed to be used as long as they have good durability properties and are used in anaesthetically pleasing manner; provide an architect to design individual houses to fit into the area in which they are built; and provide a greater degree of financial assistance.

\* *People in Melbourne*: Inter-Church Trade and Industry Mission, 1972.

The family unit is the most important social factor for a stable, prosperous and united nation. The individual is largely a product of his environment. To maintain the family unit, individuality and privacy at the same time as containing urban sprawl new architectural approaches are essential, especially in the case of Maori and Polynesian groups, to ensure designs are more in keeping with their traditional kinship and cultural patterns. The concept of the satellite suburb, built on poorer class land, linked to major centres by rapid transit systems should be fostered.

## RECOMMENDATIONS

1. THAT more emphasis be placed on the provision of public transport, especially rapid-rail transit systems, as a means of improving public access to cities.
2. THAT incentives be provided for people to live in medium-to-high density communities surrounded by open spaces and linked by rapid transit systems, thus lessening the dependence on motor vehicles and the need to build further motorways. (We must design communities for people not cars.)
3. THAT attractive pedestrian malls and rest and recreation areas in the inner city be encouraged.
4. THAT smokeless zones in city centres be established.
5. THAT we surround cities with 'green belts' and establish 'green hearts' within residential areas.
6. THAT town planning legislation be rewritten to provide public participation before plans are prepared, and provide a fully unified approach to the urban community environment e.g. to encourage multi-use buildings.
7. THAT continuous user research be carried out in all new building development.
8. THAT no new housing development be permitted until a proper community social development plan is approved.
9. THAT all new building developments contain a proportion of experimental buildings, assisted by local authorities and state lenders e.g. new types of family homes.
10. THAT all multi-storey office blocks contain a proportion of living accommodation to help humanize the inner city.
11. THAT a Social Development section be set up as part of the Social Welfare Department, to anticipate and prepare for new social patterns and frameworks.
12. THAT the town planning profession be encouraged to upgrade their professional status.

# POWER

Resources for the generation of hydro-electric power in New Zealand are limited. The situation has been aggravated by the development of the Comalco aluminium smelter at Bluff which uses 25% of all the electric power consumed in the South Island. Until the time when nuclear fusion power is developed, costs and pollution problems of the generation from stations built in the future will steadily increase. Present nuclear fission stations can be dangerous, because of leakage of radio-active materials; oil-fired stations depend on imported resources; and coal-fired stations are likely to be serious sources of pollution, and expensive.

It is obvious that we must conserve available resources in the immediate future by:—

- (a) reducing the unnecessary use of electricity by industry, such as reduction of illuminated advertising;
- (b) encouraging the insulation of homes to reduce power needed for heating;
- (c) establishing solar heating units in buildings.

We must also explore alternative sources of power generation such as the use of tidal, wind and solar energy all of which are non-pollutant. On a limited scale municipal sewage schemes could also produce methane gas. We sorely need a balanced, cohesive, national energy policy with long-range perspectives, with a view to safely utilizing hydrogen-based energy sources as opposed to present carbon-based ones.

## Comalco

The continuation of the Comalco scheme is undesirable socially because (a) of the vast diversion of New Zealand's scarce supply of power (b) of the pollution and fluorides arising from the high stack drifting right across the oyster beds to the south-east (c) of the allocation of this major block of South Island electricity potential to a low productivity (in relation to New Zealand's needs) industry at the expense of other projects more in New Zealand's interest, for example, freeze-drying Southland vegetables, and because (d) the electricity so used would be better used fostering the establishment of locally-based industries using locally-based raw materials, so offsetting the population trend to the north. Since Comalco has been guaranteed 100% load factor in times of shortage the rest of the South Island must suffer.

The supply of this power cannot be justified on the basis of job creation. Comalco employs less than a thousand people but by 1975 will consume 480 megawatts, 40% of South Island usage, while the total South Island population of 780,000 will use only 720 megawatts. A total of 750 jobs only arise from the smelter. If use of power on this basis were extended there would be jobs for only 3,000

workers in the South Island before the electricity supply is exhausted, and this does not include the amount required for schools, homes, shops, hospitals, street lighting and other essential needs. Put another way, 0.3 megawatts per job is a far higher allocation of energy than New Zealand can afford.

It cannot be justified on the grounds of profit — clearly, the earnings from the smelter are being revised downward. In fact the report by officers of the Institute of Economic Research has already been amended considerably.

It cannot be justified on environmental grounds at any price. To make up for Comalco's share, in order to provide for future needs, it will be necessary to flood the Clutha Valley or build thermal power stations on the Buller coal fields, at great expense. If the latter, the coal supply will be exhausted in about twenty years, and Comalco will still be drawing its share.

It cannot be justified on the grounds of being a payable market for electricity. The price Comalco pay is about 20% of the price paid by other industries in Southland.

Nor can it be justified on the grounds of being a cheap source of aluminium. Aluminium for cables must now be bought from the New Zealand smelter and not from overseas. The result? An 8% increase in price!

It is clear, therefore, that the agreement with Comalco must be terminated preferably without real loss to the company. This can be done by allowing Comalco to depreciate their capital investment at the rate of 10% per annum, based on the capital not on the reducing balance, and at the end of the term turning off the power. Comalco would immediately argue that their profit in New Zealand is not great enough to cover this write-off and that they would make a capital loss each year. But, by arrangement of their interlocking companies, they can arrange whatever share of profit they wish to appear earned in New Zealand.

And, finally, it should be borne in mind that the majority shareholding is overseas domiciled; and that the amount of overseas exchange earned for New Zealand will be negligible.

And despite the fact that there is a glut of aluminium on the world market further aluminium smelters have been mooted such as the one suggested for Aramoana — this is alarming. How much longer will New Zealand continue to subsidize overseas concerns? The Comalco agreement is secret but we suspect that the operation is being run so that it is not in New Zealand's best interests. Both our major political parties have been responsible for leading us into this situation and we believe that the time has come for serious consideration to be given to phasing out the scheme in a suitable manner.

## Broadlands

Being opposed to overseas exploitation we view the Japanese interests in the Broadland's geothermal field, south of Rotorua, very gravely. International requirements demand close guarding of heavy water plants and the establishment of a Japanese 'garrison' on the Volcanic Plateau has aroused considerable public alarm. This could well mean the second target for nuclear attack after Comalco. And any raising of the temperature of the Waikato River would be tragic, deoxygenizing the river, to say nothing of the release of toxic metals into it. There will be enough work freeing the river from the present toxic industrial wastes such as the mercury from Kinleith. Power from Broadlands should be available for the North Island grid. Although the final go-ahead has not yet been given, the Labour Government, on the 7th January, did give two big Japanese firms the right to research the possibility of using the Broadland's geothermal field for making heavy water. Why do they want it? Because of the low cost of geothermal heat and the fact that they can produce heavy water at least 25% cheaper than anywhere else in the world!

## Nuclear Testing

All nuclear testing, whether in the atmosphere or underground, must be totally opposed.

New Zealand should co-operate in international agreements and mobilize all opinion and information throughout the affected area, disseminating information to all people concerned. It is common knowledge that French authorities, for example, did not acquaint the islanders in their territories of the hazards of nuclear fallout, prior to the last battery of tests. In the event of future testing in the Pacific we offer these suggestions for action to halt them: (i) Establish reciprocal trade as soon as possible so that no Pacific nation need be dependent on loan finance from France, such as the \$12.3 million accepted by New Zealand just before the 1972 Mururoa tests (ii) Persuade the United States and Britain to provide the required information to France to obviate the need to test bombs (iii) Call a Pacific Basin Conference in order to unite action (iv) Work through the United Nations (v) Use the International Court of Justice (vi) Embark upon a massive letter-writing campaign, by New Zealand school students, to all schools, universities and individuals in France or other offending nations (vii) Send manned vessels into the test zone . . . as a last resort.

Man-made radiation causes genetic and other damage to human beings, even in the minutest dosages. We agree entirely with Dr Robert Mann of the Environmental Defence Society when he said recently that 'just because other countries have a higher radiation level there is no reason to expose New Zealanders to a higher level'. Besides, it is most unethical to expose a population to radiation, mass-medication, biological or chemical weapons. Such activities should be preserved for medical usage only. We adhere to the decree accepted internationally after the Nuremberg Trials, namely, that no human being shall be experimented on without his or her consent.

## RECOMMENDATIONS

1. THAT greater research into alternative methods of generating and storing electric power (e.g. solar, tidal) be encouraged, by both Government and independent bodies.
2. THAT the proposal to divert the Broadland's geothermal field to the production of heavy water be opposed.
3. THAT the Comalco contract be terminated over a period of ten years.
4. THAT the power thus diverted into the South Island grid be made available at a cheaper rate for the encouragement of development of local industry.
5. THAT plans for further development of hydro-electric schemes in the Clutha Valley be dispensed with.
6. THAT all possible avenues of reducing peak-load power requirements be investigated by the New Zealand Electricity Department, the D.S.I.R. and by the Ministry of Works and the Labour Department.

# POPULATION GROWTH

Without control of the population growth many well-meaning environmental measures must inevitably fail. If present trends continue then in the foreseeable future man will either outstrip the available resources or suffer unknown disasters of his own making. And in New Zealand, as well as elsewhere, man's problems are compounded by an economic system which encourages waste of resources and makes pollution profitable.

Many experts have drawn attention to the increasing problems associated with ever-increasing growth in population. For example, Dr Beatrice Tinsley, a New Zealander working as a research scientist at the University of Texas, while touring this country recently, explained how the ever-increasing number of middle-class homes, schools, hospitals, universities etc. drain the resources of a nation, providing more but offering no real improvement to society as a whole. For while resources are being spent on these things, the impoverished get nothing at all. When Dr G.W. Butler, director of the applied bio-chemistry division of the D.S.I.R., returned from a research tour to North America and Europe, he stated that the most serious problem concerning pollution was the increasing concentration of people. 'The levelling off of the population was the most important thing to achieve and it must be given the highest priority'. New Zealand's population will reach 4.6 million by the year 2001, according to Government Statistician, Mr J.P. Lewin.

Researched studies have shown that increasing population density produces mental and social disorders and serious health hazards. Increased population tends to bring industrialization, with its accompanying social and environmental problems, and we do not want New Zealand to suffer the fate of Japan or Los Angeles. The Stockholm Conference on the Environment, 1972, noted that 'in those regions where the rate of population growth or excessive population concentrations are likely to have adverse effects on the environment or development, or where low population density may prevent improvement of the human environment and impede development, demographic policies should be applied'. Much of what we hear about population growth today is one-sided, that is, it stresses the evils of heavy concentrations. However, both the suggestions offered by the Stockholm Conference could well apply in New Zealand, especially where re-distribution of population to regional areas is concerned, to relieve pressure on major urban areas and foster more humane development locally. We believe that since New Zealand has a growing responsibility to the world as a food-producing nation, and since our agricultural land is being gobbled up so fast while problems are increasing in our cities, then the time to act is now, before it is too late. We must work towards the stabilization of population growth.

Such a policy should be tackled within the framework of individual choice and in recognition of the maturity of individual people to themselves control the population problem, bearing in mind that a certain standard of living and stabilization of population growth go hand in hand. We must avoid invading human rights and avoid coercion. Rather, we should work towards stabilization by increasing public awareness, education, the development of public responsibility and the use of economic incentives and/or disincentives. It would be irresponsible of Government as has been the case in the past, to encourage large families. Today, the human factor in production is only about 10% so an increased labour force is no longer necessary. New Zealand has a sacred duty to preserve its land and the only viable method of doing so is to stabilize the growth of population.

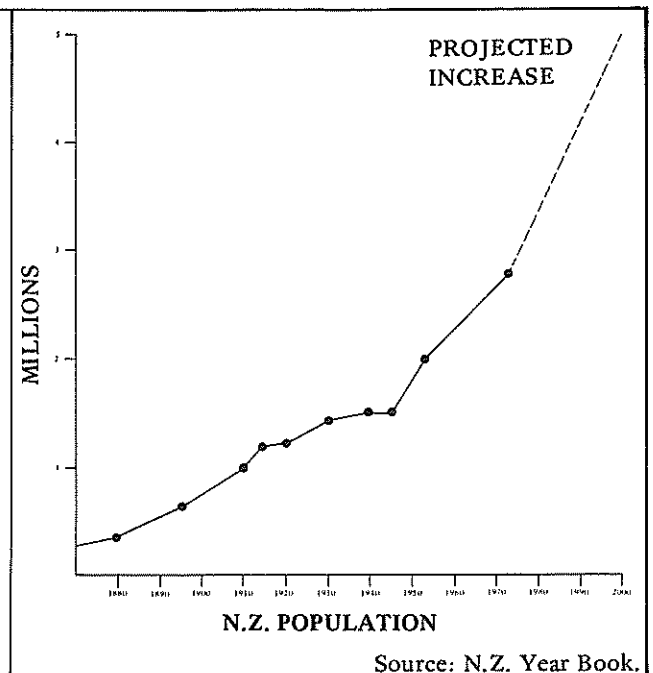
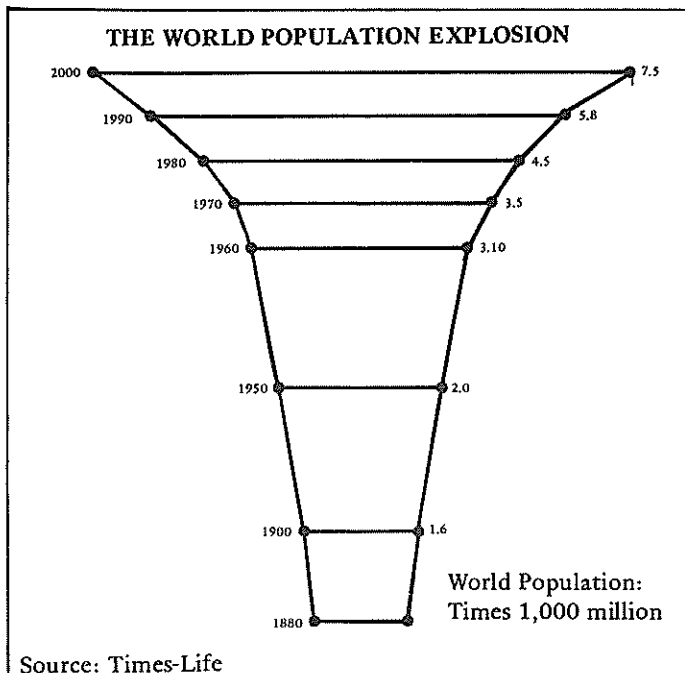
Central Government's role should be one of guidance and incentive-giving. We should strongly reject any such measure as the one seriously considered by some demographers for Brazil — contraceptive chemicals in the public water supply. We should also reject the issuing of baby licences.

Equitable geographic distribution is something Government must also encourage by policies of decentralization, for smaller communities lessen men's detrimental impact on the environment and foster his sense of identity.

## Family Planning

Apart from economic incentives such as adjustment of the family benefit and tax exemptions to encourage smaller families, the New Zealand public must be able to get free guidance and education on family planning. We note that education and social factors are already having the desired effect since many young people have made the decision to have small families, the average family size dropping from over five in the 1920's to just over two now. While free contraception is not a proven method of population control, especially among people of limited education, subsidized contraceptives and free advice accompanied by correct instruction must be made available, particularly where chemical contraceptives are used. We cannot overemphasize the need for guidance, especially for secondary school students, in an age where materialism often leads to a breakdown in self-discipline. Provided individual rights are protected, subsidized vasectomy should be made available as part of the free medical service. Immigration should also be more rigidly controlled.





While we support the establishment of university-based sociological research centres to investigate fully such concerns as abortion, we do not believe that changes in the abortion laws are warranted, mainly because we feel that abortion-on-demand should not be made a means of escape from responsibility. We favour working towards population stabilization by more positive means such as massive educational and counselling programmes. However, in order to protect the medical profession legally any steps that need to be taken should be. Our aim should be to work to structure a society where concern for human life is paramount, where people's needs are met to the degree that no woman need seek abortion for reasons economic or social, and where adequate and competent counselling for those who seek abortion as the solution to their immediate problems is provided.

Finally, population research should become part of new degree courses at universities on Human Ecology and Environmental Studies.

## RECOMMENDATIONS

1. THAT New Zealand legislate towards eventual stabilization of the population in four main ways:—
  - (i) Education of the public, including family planning, counselling and guidance in limiting family size.
  - (ii) Sex education in schools, including advice on the use of contraceptives, in order to reduce the number of illegitimate births. Such education should also include discussion of social and moral values.
  - (iii) Provision of readily available and subsidized birth control methods and advice on their use.
  - (iv) A reduced immigration policy, based on the ability of the immigrant to fit into our society, regardless of race. Government-assisted immigration should be abolished.

# THE ECONOMY

The really big question which confronts environmentalists, politicians and other interested persons when dealing with the problems around us is – who will pay? There is no doubt that much of the clean-up required in New Zealand at the present time is being forestalled because no one is prepared to pay the price. Let us be honest: we have got where we are because we have been doing it on the cheap. Unless we face up to the question of cost now, we may well endanger the future.

While a number of suggestions are made herein for financing specific problems, such as local body composting, these will merely provide stop-gaps. A radical change in thinking must take place at top level if pollution control and conservation is to be undertaken on anything like a thorough, dominion-wide basis. We agree with the co-editor of Environment magazine, Mr Peter Williams, that 'under existing economic policy available resources are subject to over-exploitation – geared to growth and profit rather than to human need'. We agree, too, with the finding of a special group of Scottish economists and theologians\* that 'the existing system of debt-finance is prejudicial to human well-being and a drag on the development and distribution of wealth'. And we accept the challenge preferred by leading ecologists – THAT ECOLOGY MUST DOMINATE ECONOMICS. For years the Social Credit League has propounded a more equitable financial system that would completely complement the demands of our environment, making it a better place for people to live in.

## Zero Economic Growth?

'People are dead as human beings if there is no economic growth', said anthropologist Dr Alan Mark recently. He added that there are a lot of lower income people around who desire economic and material advancement, and need it. If zero economic growth was instituted tomorrow there would be very many miserable people around the \$3,000 or less a year income bracket. While it is true that economic growth by itself will not necessarily create happiness it is equally true that Government, and society, has a responsibility to provide the basic material necessities of life to all its citizens. Everyone is entitled to a basic standard of living. And our aim must always be to provide New Zealanders with the highest standard of living possible within the limitation of resources available, that is, materially, physically, culturally, aesthetically. To quote the Secretary of the Treasury, Mr H.G. Lang, 'A state of zero economic growth is both impractical and undesirable for the New Zealand economy'. It would, in effect, be legislating for the middle and upper income groups.

The basic argument for zero economic growth is based on the assumption that physical resources will run out and

that we'll either starve or perish in pollution if the economy continues to grow. However, such a supposition suggests the economy is some sort of 'juggernaut going indefinitely in the same direction with no capacity to change or adjust' (H.G. Lang). In fact, the economy is quite a fluid thing for working out the changes in supply and demand. If society were to run out of any particular resource the price would have risen early in the piece and there would be a switch to a substitute.

We do not want unlimited growth for growth's sake. We do not want New Zealand to become a heavy industrialized society. Heaven forbid. But adequate pollution control and the conservation of resources is impossible unless production is made available for this purpose. The trouble is that so much of our production has no end-view relating to people's welfare. Dr E.F. Schumacher, former economic adviser to the British National Coal Board and now President of the British Soil Association stated in his essay, The Economics of Permanence that 'There can be growth towards a limited objective, but there cannot be unlimited generalised growth. It is more than likely, as Ghandi said, "Earth provides enough to satisfy every man's need, but not for every man's greed"'. Or on another occasion he noted that the idolatry of wealth has moulded a system and this same system now moulds us. We must change the system. Zero economic growth will merely preserve it and heighten its inadequacies.

Under a system of stagnant production money could be gradually provided for a clean-up of the environment but if we want the job done faster production must increase. The problem is, is it better to produce more and further damage the environment to enable more credit resources to be applied to cleaning up a bigger pollution problem or have stagnant production and take a much longer time to clean up the mess the environment is already in? The former is preferable, if it can be achieved without further pollution. We believe it can. It basically depends on Government willpower and priorities. Indeed, we go further. In a carefully-planned economy, without inflation, when the standards of people reach a pre-determined level, then more and more financial resources can be provided for social objectives. Stop economic growth and our living organism, society, which depends on growth, will collapse.

Let us progress economically with great care on a policy of environmentalism deeply ingrained in every high-level decision affecting the people of this country. And add to this the other main channel of financing the environment – the use of our own credit. This could be largely in the form of cheap Reserve Bank loans for capital works and to local bodies.

### Present System Serves Moneylender

Nothing concerning living things, including the environment, is static (as orthodox economists tend to think) but built on productive energy. But everything presently done is geared for the parasitic cycle, that of speculation, of the inefficient use of resources. Our economy is presently built for the moneylender, not people. It is our firm opinion that any political party which upholds anything which disrupts our energy flow is, in effect, irresponsible. The only political and economic system which will help man is the one which will preserve all energy flow, the one which uses energy correctly, which places recycling of materials first. The Mangere composting plant illustrates the principle: decaying material provides the energy for the airport and local industry. The present

system demands that a large proportion of energy benefits only the moneylender and speculator. We must channel this energy into preserving the environment and providing goods and services for people.

And finally, the present system is geared to maintaining the status quo. A change of direction is needed: what is physically possible and desirable should also be made financially possible. Professor Barry Commoner sums it up in *The Closing Circle*:

'Capital, by its very nature, must be directed towards high return investment — some of the greatest successes in terms of capital return are environmental disasters, and low return investment is left to clean up the mess, and disappear in a few short years in depreciated value of money'. It's time for a change of direction.

## OUR RESPONSIBILITY TO POORER NATIONS

The best brains in the world converged on Stockholm in 1972 but the one question they could not resolve was that of environmental problems in the poorer nations. Indeed, the only suggestion emanating from Stockholm was to subsidize them not to produce. This is no answer: already poverty-stricken environments would become even more poverty-stricken. People cannot improve the quality of their lives unless resources are available to create and maintain a favourable living and working environment. This principle is particularly applicable when people are subjected to environmental deficiencies generated by conditions of underdevelopment. It is only by their utilization of their own resources to meet their own needs that the twenty-five poorest nations can provide a satisfactory quality of life for each of their individual citizens.

Many sincere people advocate that New Zealand should contribute 1% of its production to aid the plight of people in developing nations. Unfortunately, application of this policy, in isolation, will not correct the problems of physical and environmental poverty to which the great majority of the people of developing nations are exposed. The poorer nations would benefit more if they did not have to transfer their own endemic resources and production to the advanced nations whilst receiving nothing in return. Application of the present world trading mechanism has resulted in production, greatly in excess of that offered by a 1% aid programme, being transferred away from the poorer nations to the rich.

The rate at which the poorer nations are forced to export production, in fact to supply aid to the wealthy in the form of interest payments on debt, has been increasing at approximately twice the rate of exports coming from the developing world. By the end of 1972 the governments of the twenty-five poorest nations were in debt to the extent of \$80,000 million to the world's twenty richest nations. The servicing of this debt, which costs \$7,000 million per

annum is a greater reverse drain on the debtor nations than they would receive through a 1% aid programme.

We contend that those who advocate 1% aid, and at the same time defend the present unethical system, refuse to look at the whole problem and are engaged in hypocritical double-talk. They would give aid on the one hand and see their act of charity as a noble gesture. While on the other hand they would support an exchange system which is perpetuating injustice against the developing nations to an unprecedented degree. Aid without dramatic changes in the orthodox trading system will merely help to alleviate the problem of debt servicing by those who are exposed to physical and environmental deprivation.

A system which allows the reciprocal exchange of value on equal terms between all the people of the earth, will remove blatant injustice and give real meaning to the intention of assisting the developing world. We should combine aid with a just system of trade. The aid offered must be primarily of an advisory nature which will assist people themselves to raise their own living standards. As living standards rise so will resources become available to maintain and improve the physical and social environment. An exchange of people on a much greater scale than applies with the Colombo Plan, financed by New Zealand, would enrich our cultural environment and would be mutually advantageous. Aid through trade will provide much-needed employment and improve working conditions.

## RECOMMENDATIONS

1. THAT New Zealand contribute at least 1% of its Gross National Product to overseas aid.
2. THAT New Zealand embark upon a policy of bilateral trading with nations wishing to reciprocate.
3. THAT New Zealand establish an Export Credit Account to provide, especially, under-developed countries with reciprocal trade credits at a nominal rate of interest only or even interest-free.

# ENVIRONMENTAL ADMINISTRATION

There has been much frustrating talk about the environment but it all succumbs to the equally frustrating habit of setting up committees, whose frames of reference are usually too general: they are invariably inadequately staffed and lack the necessary funds to achieve anything noteworthy.

The Commission for the Environment is just another committee which seems to have been generated by a Parkinson Law complex. Unless it has the finance to embark realistically on research activities and to act directly upon environmental problems then it is practically toothless. Government emphasis, ever since the 1970 Environmental Conference, has been on administration and implement positive measures.

To avoid duplication of specialised skills we propose a Ministry of Natural Resources and Environment which will guide and co-ordinate environmental policy whether that policy be implemented by Government department or private, co-operative or local body organizations. Although we oppose undue centralization of administration we also see weaknesses in the mere delegation of responsibility. For example, the delegation of pollution control to bodies such as the Waikato Valley Authority was a sound administrative move but was really intended to relieve Government of the financial responsibility.

Catchment Authorities were vested in 1967 with the power to act as regional water boards but so far central government has not contributed a cent to assist. Such

penny-pinching is resulting in talent, materials and machinery being wasted while the environment deteriorates.

As stated previously we believe there must be a greater degree of public participation in environmental administration, via land use committees and regional government, such as the Stokes Valley Scheme where community effort resulted in houses being built among the trees. Like American columnist, Jack Anderson, we maintain that 'democracy depends on the free flow of accurate information to the public'. The Commission must be assured of the means, staff and finance to do this.

## RECOMMENDATIONS

1. THAT environmental legislation take precedence over all other legislation.
2. THAT the Ministry of Natural Resources or the Commission on the Environment project the nation's environmental future in fullest detail to the year 2,000, so as to know what its priorities should be and how to achieve them.
3. THAT environmental law be part of legal studies at universities.
4. THAT a planned course of instruction in Human Ecology and Environmental Studies be introduced in primary and secondary schools and that a degree course in the same subjects be offered at N.Z. universities.

## TAILPIECE

We offer the preceding proposals in the sincere hope that they will contribute constructively to the building of a better environment for all. We must avoid the mistakes of the past and safeguard the future against speculation and exploitation. Much of what we want is already on the statute books — what is lacking is the motivation to put it into force.

The tremendous work of such voluntary groups as Ecology Action, the Environmental Defence Council, the Royal Forest and Bird Protection Society, Conservation

and Acclimatization Societies, the N.Z. Deerstalkers' Association, Peace Media Research, the N.Z. Soil Association and a host of others, has already done much to promote environmental progress. What we need now is greater enlightenment among planners and politicians and the financial wherewithal to see their responsibilities translated into action. Satisfaction with palliatives will no longer suffice: we must totally assault the threats to a healthy environment, while we still have time, making it one worth living in, both for ourselves and for those who follow.

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