Organising the Canadian Economy

Towards a Fuller Employment of Natural Resources

By Andrew Stewart

NATURAL resources, strictly defined, are gifts of nature that are gifts of nature, that is their existence is in no part due to human But if the existence of these resources is the result of natural processes, their significance depends on social factors. Although, under existing conditions or conditions which can reasonably be anticipated, it is possible to exaggerate the immediate significance of the natural materials with which Canada is endowed, still these resources are sufficiently "rich" extensive and varied as to place this country in a position of marked contrast to that of many other less-favoured It is therefore of importance, not alone to Canadians, that the resources of this country should be used with intelligence, foresight, and a proper sense of responsibility. Opinions may differ as to the degree to which the use of Canadian resources, in the past, has met these specifications. Doubtless all would agree that every reasonable means should be employed to ensure that they are successfully met in the future. More specifically it may be assumed that, in the postwar world, the general objectives, in both the domestic and international aspects of the problem, should be the "optimum use" of natural resources and, to borrow a phrase from the "Atlantic Charter", "access on equal terms" to them and to their products.

The terms "optimum use" and "access on equal terms" represent only very general "statements of aims' with regard to natural resources; and it must be admitted that it would be difficult to define the terms with precision. Further, in the complicated situations which characterize the real world, and which will assuredly present themselves in the post-

EDITOR'S NOTE: Andrew Stewart is Professor of Agricultural Economics at the University of Alberta. war world, it must be expected that formidable difficulties would arise in any attempt to apply the concepts to the development of practical programmes. However, it should be useful for us to consider some of the implications of the broad objectives of "optimum use" and "access on equal terms", as well as some of the means by which their more complete attainment might be achieved.

National Aspects

While it is true that, in a world of interrelated national units, there is no major problem of policy which is of purely domestic significance, we may start by considering the domestic aspects of the problem of resources.

What do we mean by "optimum use" of resources?

"Optimum use" implies, first, that the country's natural resources are employed with a proper regard to their conservation. If we want more conservation this means that, in the decisions affecting the use of resources, we desire that more weight should be given to the future, and more serious effort made to ensure that future welfare is not too largely sacrificed for present advantage.

In the second place, "optimum use" implies that resources are not deliberately withheld from productive use. In the case of scarce, localized natural resources, restricted development and limited output may confer advantage to the few while operating to the detriment of the community in general. If we want to avoid this, more serious effort should be made to see that all of the varied resources of the country are developed to the point where no special advantage accrues to any persons, or groups of persons, directly concerned with their use.

Thirdly, "optimum use" implies that the development and use of particular resources is in no case carried beyond the optimum point. If we want "optimum use" this means that effort will be made to resist any pressure to apply to the development of natural materials other resources which could be employed with greater advantage elsewhere.

Fourthly, "optimum use" implies that resources are put to their most productive uses. If we want "optimum use" this means that, when, under dynamic conditions, past decisions no longer appear to provide for the most productive uses, adjustment to the more productive alternatives will be facilitated.

Fifthly, "optimum use" implies that, in the widest sense of the term, the most effective methods of production are employed. The desire for "optimum use" of resources implies that every reasonable effort will be made to see that, at all times the best known methods are employed in their use; that adequate effort will be applied to developing more effective methods; and that the adoption of new and improved methods will be facilitated and not impeded.

The factors responsible for less-thanoptimum use of resources in the past have been many and varied. Reference may be made to six such factors.

First, not the least important factor has been the great difficulty of determining what constitutes "optimum use", under the complicated and uncertain conditions in which practical decisions have to be made. In contemplating the future it would not be helpful to close our eyes to the fact that there is a residual problem of knowledge, and that, no matter how the responsibility for making decisions is allocated, mistakes will be made. Failure to recognize this leads to inadequate preparation for the correction of errors when they occur.

However, second, the mistakes, of the past have, in appreciable degree, been due to the lack of attainable knowledge on the part of those who have directed the use of resources. Errors of this kind can be reduced by raising the general level of knowledge, and by ensuring that the use of resources is entrusted to those

most competent to exercise direction. With regard to agriculture, it may be admitted that the level of management on many farms is low in comparison with what it might be, and that there is a pronounced lag between the development of new techniques and their adoption on individual farms. Despite this there are, in the opinion of the writer, very good grounds, even from the standpoint of securing "optimum use", for retaining individual enterprise and management in agriculture. The technical conditions vary so greatly between particular farms that management decisions must be made by someone directly and closely in touch with the particular situation. seems probable that the country as a whole would benefit by providing the farmer with more effective assistance in his technical and managerial problems. In the past advisory assistance has been provided through county agricultual representatives or district agriculturists. Useful as this service has been its effectiveness has been limited because it has been too centralized and not closely enough in touch with the practical problems of individual farmers. If the advisory service is to be rendered more effective, it will be necessary to increase the number of fieldmen and to reduce the territory and number of farmers each has to serve.

Third, in the past, employment of resources in ways contrary to the interests both of the individual and of the community at large, has resulted from removable incapacities of some individual producers, for example, lack of capital. To this extent improvement could be effected by the provision of better arrangements for meeting the needs of individuals as producers and for assisting producers in making advantageous adjustments. It is widely recognized that existing machinery is quite inadequate to meet the requirements of Canadian agriculture for both long-term and intermediate credit. The mortgage instrument with fixed annual payments has proved itself illadapted to meet the vicissitudes of agriculture under conditions characteristic of large parts of this country. As a result of poor intermediate credit facilities, competent farmers who see the opportunity to make advantageous adjustments in farm organization and methods of production, frequently find themselves, through lack of capital, unable to effect the changes desired. Benefit to the whole community would result from the provision of agricultural credit facilities more adequate than those now available.

Fourth, under individual control, failure to achieve "optimum use" has, in part, resulted from the divergent interests of the individual resource-user and of the community. This is particularly conspicuous where the conditions are favourable to monopoly control; but such conditions are relatively rare in agricultural production. In relation to conservation divergence of interests may result from the relatively short viewpoint of the individual. In this case more direct measures may be necessary to ensure that the general interest is protected. The corrective measures appropriate to particular situations might involve inducements to the adoption of approved practices (for example, a tax on extractive uses), direct control of use through regulations (for example prohibition of uses likely to result in rapid deterioration), or actual state operation.

In areas in which experience has demonstrated conclusively that certain uses and methods have led to serious depletion of the productive capacity of soils, active measures should be taken to prevent further deterioration through the continuance of these uses and techniques. Saskatchewan substantial areas of land have been declared sub-marginal for wheat production, have been withdrawn from cultivation and their future use for this purpose has been prohibited by statute. In Alberta applications for crown lands are not granted until the parcels have been inspected by a qualified soil scientist, and the use to which the land may be put i.e. cultivation or grazing, is determined by the investigator's report. By 1940. some 120,000,000 acres in 27 states in the United States were organized into 220 Soil

Conservation Districts. The district supervisers, three of whom are elected, may formulate regulations affecting the use of land which, if approved by the land occupiers in the district, become enforceable. A Wisconsin statute exempts woodland and sloping land from taxation, provided such lands are not grazed and burned, and are managed so as to prevent erosion and run-off.

Fifth, less-than-optimum use of resources in general has been caused by sectional (industrial or geographical) pressures which have led to the diversion of effort into relatively unproductive uses and localities. If "optimum use" of all resources is to be more closely approximated, either the groups in the community must consent to abandon this form of destructive competition, or some means must be devised of reducing their capacity to promote sectional interests to the detriment of the general welfare.

The successful pressure of industrial groups for import duties, subventions and other forms of preferential treatment, affect the allocation and use of resources, and, while not always necessarily so, there is a strong presumption that where special measures of assistance are necessary to promote or perpetuate particular forms of production, the resources affected could be put to some more productive use. Any local community-particularly the property owners in it—stands to gain by the further development of the resources within its boundaries. There is therefore a strong tendency to press the importance of local development without regard to the fact that, taking the broader national viewpoint, more advantageous opportunities exist elsewhere. This point may need special emphasis in connection with the period of reconstruction after There is a general feeling that, as part of the programme of reconstruction, it will be necessary for the nation to undertake extensive developmental projects affecting natural resources. "optimum use" of resources will, in this event, require the selection of these projects on the basis of a broad national appreciation of the alternatives.

Sixth, in the past, less-than-optimum use has resulted from governmental policies which have reduced the incentive to "optimum use" or have positively encouraged exploitation, limited development, and impeded adjustments and the adoption of efficient methods.

The earlier policy of free land embodied in the homestead legislation did not encourage the efficient use of agricultural land in the prairie provinces; and it is significant that in the Province of Alberta, new land is now available only on a leaserental basis, until the occupant has established himself and proved his intention and capacity to use the land effectively. However, although the proportion of rented land in the West is increasing, rental agreements are generally unsatisfactory, and tenant farming is frequently associated with property deterioration. In addition to tenure arrangements, the tax policy of governments may also have an important bearing on the use of resources. Recent studies of the assessed values of agricultural lands suggest that there is a general tendency to over-assessment and taxation of less productive lands. Over-taxation may limit the development of land which might otherwise be put to advantageous use. A more recent development affecting the use of agricultural land is the payment by governments of various forms of bonuses to the producers of particular commodities. While, in some instances, these bonuses are designed to promote desired adjustments, in other cases they may seriously impede adjustments. For example, whatever other arguments can be advanced in their support, there is no doubt that the effect of the wheat-vield bonuses under the Prairie Farm Assistance Act has been to maintain in wheat production lands which might with greater long-run advantage have been transferred to other uses.

If the community chooses to leave the responsibility for the control of resources and direction of their use to individuals, then the community, through its representatives, should be prepared, within the limits consistent with the general

welfare, to provide conditions favourable to the efficient carrying out of the individual's functions.

We assume that it is part of the general objective to secure for all Canadians "access on equal terms" to the natural resources of the country and to their products. Like the term "optimum use", the phrase "access on equal terms" is difficult to interpret precisely; and it is important that we should make some effort to assure ourselves that we know what we mean when we use it.

What do we mean by "access on equal terms"?

In the first place, it is possible that, if the phrase "access on equal terms" is given an extreme interpretation, this part of the general objective would be inconsistent with the "optimum use" of re-As we have seen "optimum sources. use" implies that resources are placed under the control of those who can make most effective use of them. Modified to meet this condition "equal terms" implies that no consideration other than capacity to use resources effectively should limit the opportunity of access to any individ-Is this what we mean by "access on equal terms"? Or, do we mean that control over the use of resources should be determined without regard to the capacity of individuals to exercise control?

In the second place, it is frequently supposed that the operation of a "free market" for resources avoids discrimination and provides conditions consistent with "access on equal terms"; and that the operation of such a market automatically places resources under those most competent to exercise control. satisfied that, in the past, the market for Canadian resources has always operated in this way? Is it not the case that individuals in the market for resources frequently suffer from impediments or incapacities which prevent them from bidding "on equal terms" for available resources? If it is admitted that individuals suffer from such impediments, does not the general objective imply that measures will be taken either to remove these impediments, or to offset them in such a

manner as to make "access on equal terms" a reality?

Thirdly, monopolistic control over natural resources or their products provides the most favourable conditions for discrimination between persons in the distribution of the products; but, even under competitive conditions, are we satisfied that Canadian consumers have had "access on equal terms" to the product of Canadian resources? Inequalities of income and of needs clearly make for differences in the capacities of individuals as buyers; and many Canadians go short of important food products which this country is richly endowed to produce. If we are to retain the general objective of "access on equal terms", and to strive to give it reality, does this not imply that we must be prepared either to reduce the gross inequalities in the incomes of Canadian consumers, or to revise our arrangements for the distribution of essential products from Canadian resources, or both?

International Aspects

In considering the international aspects of the use of Canadian natural resources, it is useful to distinguish between two types of resources, namely, those which, so far as is known, are highly localized in their occurrence and are found in only one or two countries (for example, nickel), and those which are universally distributed (for example, agricultural land).

In the case of limited and localized resources the conditions are peculiarly favourable to the exercise of monopoly power. Under such conditions the peoples of other countries can be discriminated against, to the material advantage of the possessing country, through control over either the development of the resource, the disposal of the raw material, or the disposal of the finished product. type of situation is a fertile source of international disunity. Active discrimination is possible in a number of ways. Even when no such discrimination is practiced, if the materials and products are urgently wanted, the peoples of other

countries may greatly fear the exercise of monopoly power. In cases of this kind the cause of international harmony might be advanced by placing the development of the resources and the disposal of the materials, if not under the direction at least under the surveillance of an internationally constituted body. Would Canadians be prepared to support a proposal of this kind, involving as it does, some degree of limitation of national control over the use of domestic resources?

Whether resources are localized or widely distributed, where countries are linked together by commercial interchange, the general interest is best served when the resources of particular countries are put to "optimum use", that is, that they are adequately conserved, fully developed, put to their most productive uses, and that the most effective methods of production are employed. Again it must be admitted that, in this international connection, the desirable conditions are difficult to describe with precision. However, within the international system, the pursuit of these objectives in particular countries promotes the welfare of the countries directly involved, and this reacts to the benefit of other countries. As we have already noted, less-thanoptimum use may, in part, result from lack of knowledge or from incapacities which limit the opportunity to develop the fullest use of the available resources. Within the international system general advantage can be promoted by raising the level of knowledge throughout by the wide dissemination of technical information, and by international efforts to remove the incapacities which result in the limited use of resources particularly in some countries. Canada could advance her own interests by accepting technical information, skilled personnel, or capital from other countries; reciprocal action by Canada in sending information, technicians, or capital to aid in securing "optimum use" of resources in other countries can react to the benefit of Canadians by increasing the demand for the products of Canadian resources. The possibilities in these directions should

be more throughly canvassed than they have been in the past.

In the case of universally distributed resources, the conditions are relatively unfavourable to monopolistic discrimination by particular countries. However, as national boundaries are now drawn, countries are not equally endowed with natural resources. Some countries, such as Canada, possess large amounts of resources relative to their populations; others have relatively limited resources. It is assumed to be part of the general objective "to further the enjoyment by all States, great or small, victor or vanquished, of access on equal terms" to natural resources and to their products. It is certain that this condition was not met, by Canaa or other countries, in the pre-war world.

Discrimination was frequently displayed in the terms on which the people of different countries had access to resources in other countries. This discrimination was evident in national regulations affecting movement of population between countries. Countries with relatively plentiful resources, Canada included, were not prepared to provide "access on equal terms" to the nationals of countries with relatively limited natural resources. Where some of the people of the latter countries could secure material benefit from migration, and desire to migrate, such action by other countries may be considered detrimental to the interests of the peoples of countries with limited resources; and presents them with a plausible case for attempting to extend their control over regions of more plentiful resources. But, are Canadians prepared to provide "access on equal terms", or to move in that direction?

Discrimination was generally displayed in the terms on which the people of different countries had access to the products of resources in other countries. Countries relatively rich in natural resources, Canada included, by impeding the importation of commodities from "over-populated" countries, limited the ability of the peoples of the latter countries to purchase and pay for the products of their resources. Such policies resulted not alone in the loss or impoverishment of customers; it presented the other countries with a reasonable case for extending production from their own limited resources which action had, in turn, unfavourable effects on the use of natural resources in the countries more generously endowed. Are Canadians prepared to sponsor policies which will avoid or reduce this form of active discrimination, and thus to move in the direction of "access on equal terms"?

It is sometimes assumed that the operation of a "free international market" for materials and commodities provides conditions consistent with "access on equal terms". But can it be said that the peoples of "rich" and "poor" countries are capable of bidding on "equal terms"? If not, does not the general objective of "access on equal terms" imply that the more favoured countries, including Canada, either attempt by means already discussed to raise the productivity of the less favoured countries, or revise their arrangements for the distribution of their products in such a way as to offset the incapacities of some countries as buyers, or both? Is such action, if taken by individual countries acting independently, likely to contribute to harmonious international relations? Or, if measures of this kind imply some machinery for regulating international transactions, would Canadians be prepared to accept the decisions of, and give continuous support to, the type of supranational body required?