

AGRICULTURAL FOUNDATIONS OF NUTRITION

XII. CONCLUSION

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... For the Father of Agriculture
Gave us a hard calling: he first decreed it an art
To work the fields, sent worries to sharpen our mortal
wits,
And would not allow his realm to grow listless with
lethargy.

Virgil. *Georgics*

The production of the food we require to maintain life and health may be said to depend on three groups of factors which may be classified for convenience as (1) Agricultural, (2) Economic and (3) Human or Social. These articles have dealt mainly with the first but before concluding it may be well to touch briefly on all three, for they are interrelated.

1. *Agricultural.* In this broad and partial survey of the food situation in South Africa we have considered production potentials and trends in actual production in relation both to current and probable future requirements. Although this is by no means as poor a country agriculturally as is sometimes supposed, it is clear that there are various climatic and other limitations which are basic and unalterable, together with such limitations as lack of knowledge or lack of research, which though at present handicapping production can gradually be overcome. Although European farmers are growing increasing quantities of foodstuffs, and of a wider variety, it is clear that the rate of consumption has also been increasing even more quickly; indeed faster than would be expected from the increase in population. This fact led Dr. M. S. du Toit to the dramatic conclusion that 'if the demand as we know it today is to be met, the volume of production will have to be increased by 20% every 10 years'.¹ If, however, the general level of nutrition is to be raised from its present low level, the increase will need to be substantially greater, at least for some categories.

The magnitude of this task is considerably increased by the instability of our climate, since the higher our targets the more marked will be the shortages in unfavourable seasons and the gluts when the seasons are good. This tendency can be seen on a small scale at the moment, when a few good years have given rise to supplies of certain foodstuffs which are surplus to the economic demand. We have seen that a marked increase in production for certain products could be achieved: indeed, for some, such as vegetables, the amounts that could be grown are almost unlimited. But for various reasons, some of which have been discussed, it is unlikely that these increases will come about automatically; rather will it require a vigorous and wisely-planned policy, in which many interlocking factors will need to receive adequate attention.

In thus planning for a better fed nation South Africa will be joining in a movement which, though of comparatively recent origin, is now world-wide and is gaining in momentum owing to the pressure of events which elsewhere are very similar to those operating here. A realization of the need for common study and common action has given vitality to the Food and Agriculture Organization (FAO) of the United Nations, which now includes most of the nations of the world. The keynote of FAO is the necessity for the conservation and wise utilization of existing resources. The soil is the most basic of all our resources, and where, as in South Africa, it is particularly vulnerable its conservation and wise utilization become of the greatest importance. Though we have left it to a dangerously late stage, a determined effort is at last being made to retrieve the mistakes of the past, as far as this may be possible; indeed the progress made since the passing of the Soil Conservation Act in 1946 has been remarkable. The first step in the programme is the formation of Soil Conservation Districts, and the extensive area now covered by these democratically-constituted voluntary bodies, each of which is charged with the application of a conservation scheme that has been accepted in principle by the majority of the local farmers, can be gauged by examining Fig. 1 and Table I. Progress is also being made in the

TABLE I. PROGRESS MADE WITH SOIL CONSERVATION ON UNION'S EUROPEAN FARMS, OCTOBER 1946 TO JUNE 1954

Formation of Soil Conservation Districts

<i>Number formed</i>	<i>Morgen covered</i>	<i>% of total area farmed</i>	<i>Number of farms and holdings included</i>	<i>% of all farms and holdings</i>
529	72,632,750*	73	74,587	62

* To this must be added 1½ million morgen proclaimed as 'Conservation Areas' for reclamation by the State.

Soil Conservation works approved or completed over the same period

<i>Undertaken by Owners</i>		<i>Undertaken by the State</i>	
<i>Approved</i>	<i>Completed</i>	<i>Approved</i>	<i>Completed</i>
90,354	43,575*	299	250†

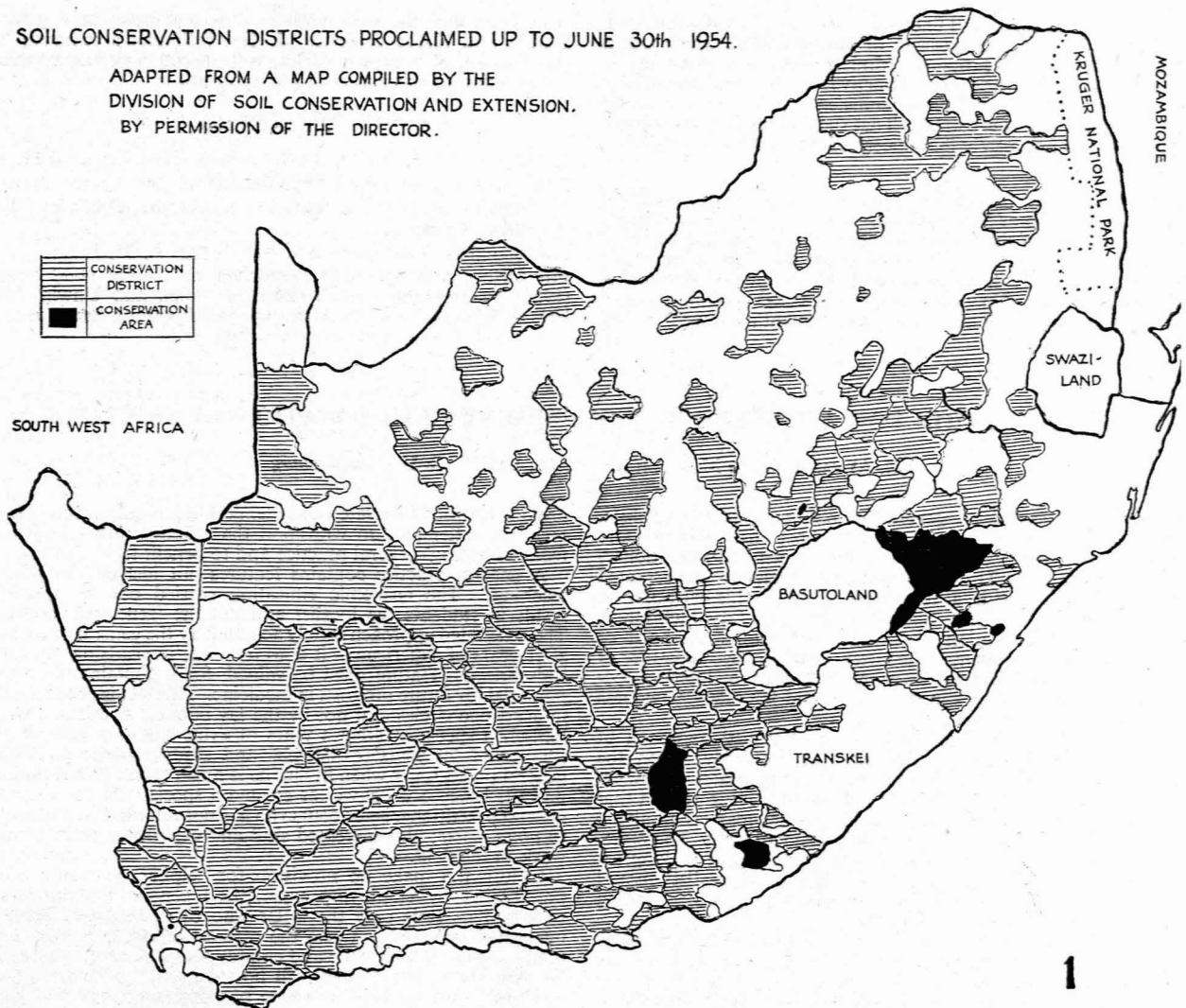
* Value of work completed estimated at £4.7 million.

† Value of work completed estimated at £328,000—mostly in 'Conservation Areas'.

Native Reserves, especially on the Trust Farms. The second stage is the detailed planning of each individual farm, which is now well

SOIL CONSERVATION DISTRICTS PROCLAIMED UP TO JUNE 30th 1954.

ADAPTED FROM A MAP COMPILED BY THE
DIVISION OF SOIL CONSERVATION AND EXTENSION.
BY PERMISSION OF THE DIRECTOR.



under way. While it is true that erosion continues to gain on us the outlook in this gigantic battle is far more hopeful than seemed possible a few years ago.

2. *Economic.* But even if our conservation problems are mastered and the farmer is adequately equipped with all that science can do for him, the desirable increase in the amount of food produced will not be secured unless he can be reasonably assured of an adequate return for his efforts. Farming is a way of making a living, and although relatively prosperous today farmers do not forget that as recently as 1941 more than half even of those who owned their farms were earning an annual money income of less than £200 (see Table II). No wonder so many have given up the uncertainties

of life on the land for the attraction of a stable salary in the towns. It has been well said that the uncertainties of marketing have 'brought the honourable calling of producer of food down to the level of a speculator on the Stock Exchange'. Unless greater stability can be achieved on the marketing side the farmer will continue to fear the consequences of a policy of expanding production; unfortunately the variability of our seasons makes this more difficult than it is in many other countries. Finally, it must be remembered that what is needed is to provide producers with adequate incentives, so as to secure a continuous expansion of production, *with prices to consumers which will promote a greater consumption.* This, too, is a world-wide problem and as such has been receiving the close attention of FAO based on the experience of many countries. The subject is well reviewed in the Report of the 7th Conference of FAO, held in December 1953.²

TABLE II. MONEY INCOMES* OF EUROPEAN FARMING FAMILIES IN 1941 (adapted from Report of Economic Planning Council, 1944)

	Owners	Tenants	'Bywoners'	Employees	All Farmers
Under £50	6,705	6,161	8,744	1,684	23,294
£50-99	9,434	6,316	5,184	2,214	23,148
£100-149	7,264	3,651	1,669	1,071	13,655
£150-199	5,666	2,102	668	439	8,895
Total under £200	29,069	18,230	16,265	5,428	68,992
Over £200	25,929	4,954	781	794	32,458
Total	54,998	23,184	17,046	6,222	101,450

* i.e. excluding income in kind.

3. *Social.* The future of our food supplies will never be secure until farming is recognized as a highly skilled profession which calls for able and well-trained men possessing energy, versatility, and an openness to new ideas. This fundamental national industry must be in a position to compete with rival claims for such men, attracting and retaining them on its own merits. Yet we read of areas where the farms tend to become larger and larger, and of others where the work is being carried on by old men and by Natives. The causes of the relative unpopularity of farming at the present time would seem to be partly economic, partly educational and partly of a social nature. Young people complain that the life is hard, often dull, whilst the financial returns are frequently none

too good and almost always uncertain. And yet, broadly speaking, the need is for a greater measure of intensification, which means more rather than less farmers. Modern inventions have shown how farm life can be made more attractive both for men and women, but these amenities are not as yet sufficiently available to compete with the attractions of urban life. That such matters are of national importance and not merely the concern of the farming community is self-evident.

Finally, it should be noted that we have confined our attention solely to the Union of South Africa. But obviously it is necessary to think in terms of the food-production potential of the whole of Southern Africa. To do this would be to take into account the possibilities of the Protectorates and High Commission Territories, including the great Okavango Delta 'where 2-3 million acres of swamp land await drainage and development', as well as the

Rhodesias with the vast developments that are linked with the Kariba and Kafue projects. J. H. Wellington's tentative land classification of Southern Africa, with map, (1953)³ is a valuable contribution to this aspect of our problem.

REFERENCES

1. Du Toit, M. S. (1953): *Public Health (Johannesburg)* **17**, 330.
 2. Food and Agriculture Organization of the United Nations. Report of 7th Conference. November-December 1953. 1954: Rome.
 3. Wellington, J. H. (1953): *S. Afr. Geogr. J.*, **35**, 16.
- For further reading *World Population and World Food Supplies* (1954) by Sir John Russell (London: Allen and Unwin) has a lengthy chapter on South Africa and neighbouring territories.