Government funds and support were available on a modest scale and for the first time.

The Development Act of 1910 provided the next stimulus to county councils and universities, who co-operated and laid the foundations of the nation-wide system of agricultural education and advice developed between the two World Wars. The interruption of the Second World War provided the opportunity for a systematic review by the Luxmoore Committee, whose report led to the setting up of the present National Agricultural Advisory Service within the Ministry of Agriculture. Farm institutes and extra-mural activities were left with the county councils and the Ministry of Education.

The new unified service offered equal farmer facilities in all parts of England and Wales and improved service conditions and career prospects. Formed in 1946 when siege conditions had barely eased, the new service had a difficult start, but within ten years the developed world—aided by an unparalleled scientific revolution—was moving into an era of plenty. Scarcity gave way to plenty—even to food surpluses—and to keen international competition. Scientists produced new concentrated, friable fertilizers to exploit the potential of high-yielding stiff-strawed cereal varieties, selective herbicides to increase yields and reduce cultivation costs and a profusion of mechanical equipment to supply cheaper power and reduce labour requirements.

Livestock numbers and production efficiency show marked increase and farm output has nearly doubled compared with pre-war despite a decline of more than 20 per cent in farm workers. The total cereal acreage in South-east England has doubled since 1939. Wheat is a little above pre-war, oats show a sharp decline and there has been a nearly universal swing to barley in defiance of rotations and of the previously accepted husbandry code.

The effects of economic pressure have been felt most severely on small farms which lack the advantage of scale and rely heavily on livestock, which provides 70 per cent of the national farm income. This situation has been countered by the advisory service developing widespread economic or farm business management advice with the co-operation of the university departments. Simple enterprise costings have tackled feed costs, which loom large in livestock production, and more sophisticated whole-farm business analysis has been developed. Thus the major factor in doubling farm output and in lowering production costs has been the impact of the advancement of science brought to the farmer by Government-sponsored research and advice.

Changes in consumer demand in an affluent society are reflected in modified streamlined production patterns and simpler farming systems. Important developments in marketing are in progress. In the future, development will continue, but whatever form it takes there is every indication that farmers will depend heavily on unbiased scientific guidance in this, the "Age of Advice".

HOW SMALL-SCALE SOCIETIES CHANGE

In her presidential address to Section N (Sociology), Dr. Lucy Mair suggests that when problems of social change are discussed it is often assumed that change in itself needs to be accounted for. Analyses of society in terms of structure and of socially approved behaviour in terms of roles have been called deterministic. Studies of the relation between culture and personality can result in a picture of society in which everyone's behaviour has been fixed by his or her upbringing in so rigid a mould that any change from established patterns calls for an explanatory theory.

Our nineteenth-century predecessors would have been astonished at the idea that social change as such presented a problem. In fact, it has become the subject of interest in the special form that it takes in this century, where the technical inventions of the Western World are being introduced to societies the indigenous technology of which is very simple.

It is suggested that the social changes resulting from this can be best understood if we recognize that a field of free choice is open to the members of any society, although the field is narrower where the level of technique is lower and the total field of social relationships narrower. The choices that men make are directed to comparable ends in all societies. They pursue wealth, power and the esteem of their fellows. These ends may be incompatible; people may have to choose between material advantage, increase of power, and the esteem given to those who respect their obligations.

In social terms, the entry of the newer States into the world economy has widened the range of opportunities open to individuals. They choose whether to enter into new types of relationship by balancing the advantages that these offer against the cost in loss of esteem through their neglect of pre-existing obligations. The conservatives are either the unimaginative or those who have more to gain by keeping to the *status quo*.

With the attainment of independence, these countries have rejected the claim of Europeans to tell them how they should take on the roles required by the social structure of a modern nation. In Africa they say that such roles must be so interpreted as to express the 'African personality'. This applies particularly to the field of politics, where the characteristic departures from Western ideals of democracy are explained in terms of traditional African customs and values. But a preferable explanation is that persons taking on political roles in the new states find themselves in an open situation in which they can themselves create their roles. These men are drawn from a different stratum of society from the traditional rulers, and are not seeking to follow tradition, but to work out for themselves the means of attaining and holding power. They interpret the new political roles in the manner which seems to them most apt for these aims, and there can be no effective challenge to this interpretation in the present social structure of their societies.

Contemporary social changes, like social change in the past, is produced by the manipulation of whatever areas of free choice there may be by people who are able to calculate where their advantage lies.

RESURGENCE OF INTEREST IN THE OBSERVATIONAL SCIENCES

In his address to Section X (General), Sir Graham Sutton contrasts the progress in the observational (or environmental) physical disciplines with that in the experimental (or laboratory) physical sciences. In the observational sciences, naturally occurring uncontrolled events are investigated, usually on a synoptic basis, whereas in experimental physics controlled events are created and investigated, so far as possible, in isolation