

PRIME MINISTER

AGRICULTURAL EXPENDITURE

I am concerned that nowhere in the papers for your meeting on Agricultural Expenditure is there any indication of the importance of scientific changes in determining the economic scenario against which long-term policies on Agricultural Expenditure will need to be judged.

2. The facts are simple: over the last 25 years agricultural cereal yields have doubled in temperate climates, eg in the UK. The wheat yield has increased from 3.09 tonnes per hectare in 1958 to 6.40 tonnes per hectare in 1983. Even larger increases in land productivity have occurred in some tropical regions of the world, eg India.

3. These increases have occurred as a result of advances in agricultural science and technology, eg improvements in fertilisers, new pesticides and new plant varieties. Just when these advances might have been expected to plateau out, we have the vast new potential of genetic engineering and biotechnology.

4. Estimates of improvements from biotechnology vary widely according to people's assessment of what the latest scientific advances might yield. The minimum benefit is likely to be a further doubling of land productivity in the next 25 years but it could be a quadrupling or an even greater multiple. It is also uncertain as to whether the benefits will be different in different climates.



5. All this means that subsidies and support regimes for agriculture will become increasingly distorted as surplus increases. Less land will be needed to feed a stable population in the UK. Land will be freed for other uses: housing, leisure and perhaps to produce feedstocks for other industries: pharmaceuticals, petrochemicals, etc.

6. In my view, a sensible 25-year assessment of possible scientific advances and their likely impact on agriculture is essential if long-term policies are to be examined in the context of appropriate economic scenarios. I suggest that I work with your Policy Unit to prepare such a paper by the end of January.

7. I am copying this minute to Sir Robert Armstrong and Mr Mount.

*RBN*

ROBIN B NICHOLSON

Cabinet Office  
20 December 1983