The True Cost of Food

A For more than forty years the cost of food has been rising. It has now reached a point where a growing number of people believe that it is far too high, and that bringing it down will be one of the great challenges( ) of the twenty first century. That cost, however, is not in immediate( ) cash. In the West at least, most food is now far cheaper to buy relative( ) in terms( ) than it was in 1960. The cost is in the collateral damage( ) of the very methods of food production that have made the food cheaper: in the pollution of water, the enervation( ) of soil, the destruction( ) of wildlife( ), the harm to animal welfare( ) and the threat to human health caused by modern industrial agriculture( ).

B First mechanisation( ), then mass use of chemical fertilisers( ) and pesticides( ), then monocultures( ), then battery rearing ( ) of livestock( ), and now genetic( ) engineering( ) - the onward ( ) march ( ) of intensive farming has seemed unstoppable( ) in the last half-century, as the yields( ) of produce have soared( ). But the damage it has caused has been colossal( ). In Britain, for example, many of our best-loved farmland( ) birds, such as the skylark( ), the grey partridge( ), the lapwing( ) and the corn bunting( ), have vanished( ) from huge stretches( ) of countryside, as have even more wild flowers and insects. This is a direct result of the way we have produced our food in the last four decades( ). Thousands of miles of hedgerow( ) s, thousands of ponds, have disappeared from the landscape( ). The faecal( ) filth( ) of salmon farming has driven( ) wild salmon( ) from many of the sea lochs( ) and rivers of Scotland. Natural soil fertility( ) is dropping in many areas because of continuous( ) industrial( ) fertiliser and pesticide use, while the growth of algae( ) is increasing in lakes because of the fertiliser run-off( ).

C Put it all together and it looks like a battlefield( ), but consumers ( ) rarely make the connection at the dinner table. That is mainly because the costs of all this damage are what economists( ) refer to as externalities( ): they are outside the main transaction( ), which is for example producing and selling a field of wheat, and are borne( ) directly by neither producers nor consumers. To many, the costs may **not** even appear to be financial( ) **at all( )**, but merely aesthetic( ) - a terrible shame( ), but nothing to do with money. And anyway they, as consumers of food, certainly aren't paying for it, are they?

D But the costs to society can actually be quantified( ) and, when added up( ), can amount to( ) staggering( ) sums( ). A remarkable( ) exercise in doing this has been carried out by one of the world's leading( ) thinkers on the future of agriculture, Professor Jules Pretty, Director of the Centre for Environment and Society at the University of Essex. Professor Pretty and his colleagues calculated( ) the externalities of British

agriculture for one particular year( ) . They added up the costs of repairing ( ) the damage it caused, and came up with a total figure ( ) of £2,343m. This is equivalent( ) to £208 for every hectare( ) of arable( ) land and permanent( ) pasture( ) , almost as much again as the total government and EU spend on British farming in that year. And according to Professor Pretty, it was a conservative( ) estimate( ) .

E The costs included: £120m for removal of pesticides; £16m for removal of nitrates( ) ; £55m for removal of phosphates( ) and soil; £23m for the removal( ) of the bug( ) cryptosporidium ( ) from drinking water by water companies; ~125m for damage to wildlife habitats( ) , hedgerows and dry stone walls; £1,113m from emissions( ) of gases likely to contribute to climate change; £106m from soil erosion( ) and organic( ) carbon( ) losses; £169m from food poisoning( ) ; and £607m from cattle( ) disease. Professor Pretty draws a simple but memorable( ) conclusion ( ) from all this: our food bills are actually threefold( ) . We are paying for our supposedly( ) cheaper food in three separate ways: once over the counter( ) , secondly through our taxes, which provide the enormous ( ) subsidies ( ) propping( ) up modern intensive( ) farming, and thirdly to clean up the mess( ) that modern farming leaves behind.

F So can the true cost of food be brought down? Breaking away( ) from industrial agriculture as the solution to hunger may be very hard for some countries, but in Britain, where the immediate need to supply food is less urgent( ) , and the costs and the damage of intensive farming have been clearly seen, it may be more feasible( ) . The government needs to create sustainable( ) , competitive and diverse( ) farming and food sectors( ) , which will contribute to a thriving( ) and sustainable rural ( ) economy, and advance environmental, economic, health, and animal welfare goals.

G But if industrial agriculture is to be replaced( ) , what is a viable( ) alternative( ) ? Professor Pretty feels that organic farming would be too big a jump in thinking and in practices for many farmers. Furthermore, the price premium( ) would put the produce out of reach of many poorer consumers. He is recommending( ) the immediate introduction of a 'Greener Food Standard', which would push the market towards more sustainable environmental practices than the current norm( ) , while not requiring( ) the full commitment( ) to organic production. Such a standard would comprise( ) agreed practices for different kinds of farming, covering agrochemical( ) use, soil health, land management, water and energy use, food safety and animal health. It could go a long way( ) , he says, to shifting consumers as well as farmers towards a more sustainable system of agriculture.