The promotion of alternatives to fossil fuels

There is a growing interest in alternatives to fossil fuels in recognition that these finite resources are rapidly dwindling. Wind turbines can offer a valuable contribution to the national grid. They can be located in barren and exposed areas, but large-scale wind farms can be a blot on the landscape. Local windmills could offer small-scale energy to communities as they did in the pre-industrial age. Solar energy can be used in a wide range of ways to provide power and heat to domestic dwellings. Other forms of energy such as harnessing tidal flows, geothermal sources and various types of biomass are also being explored. Wood is the main fuel for most of the world's people, but it is often burnt in inefficient ways and forests are depleted. Wood needs to be burnt in stoves designed to cause minimum pollution whilst producing maximum fuel economy and efficiency.

Modern animal farming uses billions of gallons of oil: as a source of fertilisers based on petro-chemicals to grow food to feed to animals, to fuel tractors and the lorries that ship grain and animals, to power refrigeration units, and to power sewage plants to try to clean up the pollution from animal based farming. There is an urgent need for a radical overhaul of agricultural and horticultural systems, adopting vegan-organic and forest farming permaculture techniques to provide more sustainable food production for the future.

So what can you do?

• Join MCL and receive our quarterly journal *New Leaves* to keep in touch with other members and share ideas for a more compassionate way of life.

- Adopt a vegan diet and use the *MCL Food Target* (on the *Food & Agriculture* leaflet and the website) to review what you eat to see how you can challenge your own dietary habits.
- Try to grow at least some of your own food, at home, on an allotment or on a shared plot, and try some of MCL's recipes based on home-grown ingredients.

Other sources of information

• Abundant Living in the Coming Age of the Tree - Kathleen Jannaway. £2.35 including p&p, from MCL (see website for ordering information).

For further information, please contact:

www.mclveganway.org.uk

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Protecting the Environment

The present violent and predatory lifestyles of much of humankind across the globe, particularly of people in the so-called 'developed countries' threatens the health of the whole environment and the very future of life on this planet. We are endangering the life support systems of the planet: the air, soil, water and climate. MCL works to pioneer a way of life that is possible for all the world's people, that is sustainable on a finite and vulnerable planet and free of the exploitation of animals and people.

David King, the Chief Scientific Advisor to the British government recently commented that "climate change is the most severe problem we are facing today, more serious even than the threat of terrorism". The melting of ice at the poles and from melting mountain glaciers will bring about significant rises in sea levels, flooding some of the most fertile agricultural lands in river deltas and alluvial river basins. Weather patterns are being disrupted with more frequent and violent storms, damaging winds, localised flooding and drought.

The amount of land required to support the different types of lifestyle of different nations has been calculated as an 'ecological footprint'. So to live as a typical person in the USA takes 10.9 hectares per person, 8.4 in Australia, 6.4 in Britain, but only 1.8 in China and 1.6 in India. If the Earth's productive land was shared fairly this would equate to 1.8 hectares for each person. Clearly the so-called developed countries of the West are taking much more than their share.

Remedial action is needed in four main areas:

- The reduction of emissions and pollutants
- The second secon
- The protection and extension of forests and other natural habitats
- The promotion of alternatives to fossil fuels

Reduction of emissions & pollutants

Animal farming is a major source of methane emissions. Methane is one of the 'greenhouse' gases and is already considered to be responsible for 12 - 18% of global warming. The scientist James Lovelock, who wrote about the Gaia theory, has described methane as "probably the most dangerous substance we are injecting into the atmosphere", being 20 - 25 times more potent than $\rm CO_2$ and building up more rapidly.

Every year British farmed animals produce 200 million

tons of effluent, much of which finds its way back into rivers and into the sea. Residues from nitrate fertilisers, pesticides and weed killers - and waste water from abattoirs - contaminate water courses, as do animal wastes and the growth hormones and antibiotics they contain.



Energy and resource conservation and efficiency

Fossil fuels are a non-renewable resource, yet they are currently used in a wasteful way. Meanwhile, there is inadequate funding for research into alternative sources of energy. Much fuel is used in the manufacture of more and more consumer goods that cannot be considered to be essentials of life. This situation cannot be tolerated in a world where millions of people go without the most basic necessities. Non-renewable resources should only be used to meet genuine need, not in unnecessary travel or to manufacture trivialities. MCL demonstrates how to simplify lifestyles and shows that simpler lives do not lead to deprivation, but to creativity and fulfilling experiences.

Animal farming makes huge demands in terms of water consumption. It has been estimated that it takes 200 - 250 gallons of water to produce a pound of rice, but between 2,500 - 6,000 gallons to produce a pound of beef. Much of this water is used in slaughterhouses. The current and increasing crises in water supply across the planet are well documented.

It has been estimated that 33% of all raw materials consumed in the US are used in the production of a meat and dairy based diet. Growing grains, fruit and vegetables uses less than 5% of the raw material consumption used for meat production. The environmental impact of the most common agricultural practices needs careful scrutiny. Animal grazing is destructive to the environment, leading to reduction of plant and tree cover and subsequent soil erosion.

Modern lifestyles in the 'developed' world are using increasing and unsustainable amounts of energy and finite resources. More and more household appliances are seen as essential, homes are over-heated, food is pre-prepared, over-cooked and over-packaged and huge 'gas-guzzling' cars are seen as a desirable status symbol and a necessity in people's busy and stressful lives. Current levels of using fossil fuels cannot continue without taking global warming and the future of life on earth beyond the point of no return.

The protection and extension of forests and other natural habitats

There has been widespread and savage destruction of the world's natural forests to make way for animal grazing. Some of the most devastating damage has been caused by intensive programmes to support the massive global growth of meat-based fast food chains. Since 1969, 25% of Central America's forests have been destroyed to create grazing for cattle. Animal farming is wasteful: for example, cattle only convert 6% of their energy intake into energy humans can digest from meat. Forests have also suffered the brunt of severe environmental pollution in industrialised countries.

Forests have the capacity to absorb the CO_2 produced from burning fossil fuel. Research has calculated that 7 million square kilometres of new forests could absorb present levels of emissions. This has led to power companies planting designated areas of new forests to counteract the effects of newly built power stations. Trees lock up this atmospheric carbon until they die and decay or are burnt. However, once felled and with immediate replacement

and careful management a permanent carbon sink could be created.

Apart from their ability to counteract CO_2 in the atmosphere, forests can supply nearly all human needs. Carefully selected species of trees can supply high yield food crops, timber for construction, pulp for paper, fibre for textiles and raw materials for resins, dyes, drugs and fuel.



Intensive farming has had an enormous impact on biodiversity in this country. Since the Second World War, Britain has lost 95% of it's flower meadows, 50% of its ancient woodlands, 50% of its fens and wet valleys and 224,000 kilometres of hedgerows due to the intensification of farming - much of this associated with meat, dairy and egg production.

Where plant crops are grown these are often part of a great monoculture where natural biodiversity is compromised and the natural balance between predators is disrupted, so species grow to 'pest' level and weed killers and pesticides are used to control them. The intensive and dangerous chemicals commonly used in mainstream farming practice also build up in the soil and water table and enter the human food chain, compromising human health. Heavy machinery which is now a common feature of the rural landscape, together with agrochemicals, cause long-term damage to the soil structure and more and more areas of farm lands are subject to increasing rates of irreversible soil damage and erosion.